Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Applications of	)	
	)	
Charter Communications, Inc.,	)	MB Docket No. 15-149
Time Warner Cable Inc., and	)	
Advance/Newhouse Partnership	)	
	)	
For Consent to Assign or Transfer Control of	)	
Licenses and Authorizations	)	

MEMORANDUM OPINION AND ORDER

Adopted: May 5, 2016 **Released: May 10, 2016**

By the Commission: Commissioner Clyburn approving in part, concurring in part, and issuing a separate statement; Commissioner O'Rielly approving in part, concurring in part, dissenting in part and issuing a separate statement; Commissioner Pai dissenting and issuing a separate statement.

TABLE OF CONTENTS

Heading Paragraph #

I. EXECUTIVE SUMMMARY 1
II. DESCRIPTION OF THE TRANSACTION 13
A. Description of the Parties 13
B. The Proposed Transaction 18
III. STANDARD OF REVIEW AND PUBLIC INTEREST FRAMEWORK 26
IV. COMPLIANCE WITH COMMUNICATIONS ACT AND FCC RULES AND POLICIES 31
V. POTENTIAL PUBLIC INTEREST HARMS 34
A. Applicants' Incentives to Harm OVD Competition 34
B. Use of Residential BIAS Retail Terms to Harm Video Competition 48
1. Relevant Markets 50
2. Unilateral Effects 68
a. Data Caps and Usage-Based Pricing 74
b. Standalone BIAS Pricing 87
C. Increased Concentration in Interconnection Services 93
1. Background 94
a. The Internet Interconnection Ecosystem 94
b. The Applicants' Interconnection Operations 101
2. Relevant Markets 104
3. Increased Interconnection Costs 108
a. BIAS Subscriber Shares 110
b. Increased Bargaining Power within the Interconnection Market 113
c. Higher Interconnection Fees 118
4. Specific Harms to OVDs 122
5. Conditions 131
a. Mandatory Interconnection 132

b. Interconnection Disclosure 135
c. *Open Internet Order* Related Commitments 137
D. Competition in Video Distribution 140
1. Background 141
2. Relevant Markets 146
3. Potential Effects 154
E. Competitors' Access to Programming 160
1. Background 161
2. Program Access 165
3. RSNs and Other Sports Programming 166
4. Other Programming 176
a. Program Access Attribution Rules 177
b. Attributable Programming 179
c. Incentive and Ability to Foreclose or Raise Prices of Affiliated Programming 188
F. Access to Online Content 206
G. Other Potential Public Interest Harms and Issues Raised in the Record 224
1. Fewer Regulatory Benchmarks 224
2. Increased Coordination in the BIAS Market among BIAS Providers 228
3. Cable Modems 237
4. Set-Top Boxes and Other Video Navigation Devices 248
5. Supply, Quality, and Diversity of Video Programming 264
a. Carriage Decisions for Diverse, Independent Programmers 265
b. Creation of New Programming and Quality in the Video Programming Market 276
(i) Video Programming Market 276
(ii) Latino Video Programming Market 280
c. PEG Channels 289
6. Competitors' Higher Prices for Programming 298
7. Local Broadband Competition 301
8. New Charter's Debt 305
9. NAB and Entravision Petitions 313
VI. ANALYSIS OF POTENTIAL BENEFITS 315
A. Analytical Framework 316
B. Reduced Programming Acquisition Costs 321
C. Conversion of Time Warner Cable and Bright House to All-Digital Service, and Related Increased Residential Broadband Speeds and Improved Video Services 347
1. Conversion to an All-Digital Network 348
2. Residential BIAS Speed Upgrades 356
3. Improved Video Benefits 362
D. Uniform Broadband Pricing and Marketing 364
E. Increased Competition to Serve Commercial Customers 373
F. Network Buildout to Residential Customers 382
G. Expanded Deployment of WiFi Access Points 390
H. Deployment of a Mobile Video Application 396
I. Video Device and User Interface Innovation 400
J. Generalized Claims Related to Reduced Barriers to Innovation 405
K. Generalized Claims Related to Lowered Costs 409
L. Improved Service for Regional and National Advertisers 416
M. New Charter's Ability to Market Itself 421
N. Other Potential Public Interest Benefits 423
1. Cybersecurity 423
2. Diversity Practices 433

3. Labor Practices 439
4. Low-Income Broadband Offerings 445
VII. REMEDIES 454
VIII. BALANCING POTENTIAL PUBLIC INTERST HARMS AND BENEFITS 464
IX. CONCLUSION 465
X. ORDERING CLAUSES 466
APPENDIX A - List of Licenses and Authorizations to be Transferred
APPENDIX B - Remedies & Conditions
APPENDIX C - Economic Appendix

I. EXECUTIVE SUMMMARY

1. In this proceeding, we approve, subject to conditions, the applications of Charter Communications, Inc. (Charter), Time Warner Cable Inc. (Time Warner Cable), and Advance/Newhouse Partnership (Advance/Newhouse or Bright House) for Commission consent to the transfer of various Commission licenses and other authorizations from Charter, Time Warner Cable, and Bright House (collectively the Applicants) to a new company, New Charter, pursuant to Sections 214(a) and 310(d) of the Communications Act of 1934, as amended (the Act).[1]

2. Our consent to the transfer of these licenses is based on a careful review of the economic, documentary, and other record evidence. We engaged in a rigorous analysis of the potential harms and benefits to ensure that the proposed transaction serves the public interest, convenience, and necessity.[2] Based on this review, we conclude that, with the adoption of certain conditions designed to address specific harms and confirm certain benefits that would result from the transaction, the license transfers will serve the public interest.

3. Charter claims its current management employs a "best-in-class" business model that results in more subscribers choosing to stay with the company. According to Charter, it focuses on offering services with higher broadband speeds and simplified, uniform pricing that is often faster and cheaper than its cable peers. It does not impose data caps or usage-based pricing for broadband, nor does it charge extra for cable modem rentals or levy early termination fees if subscribers opt to switch providers. Because of its focus on its high-speed broadband service, Charter proffers that it views current and emerging online video competitors as complementary and, therefore, it would not engage in actions that would undermine the viability of these competitors that drive broadband demand.

4. The Applicants present the transaction as a best-of-breed merger combining Charter's consumer-friendly business model with Time Warner Cable's lower programming costs. Among the benefits the Applicants promise this combination would deliver are innovative ways for consumers to access video content, for example, by deploying an app integrating Charter's cloud-based television guide with Time Warner Cable's existing app that streams hundreds of live channels.

5. The materials in the record largely—but not entirely—comport with Charter's claims regarding its current business model. Today, Charter is a medium-sized cable company. Once the transaction with Time Warner Cable and Bright House closes, New Charter will be a far larger company facing different incentives and possessing different abilities that could lead it to hamper or prevent its current and future online video rivals from expanding, becoming more competitive, or starting-up in the first place.

[1] *See* 47 U.S.C. §§ 214(a), 310(d); Application of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to the Transfer of Control of Licenses and Authorizations, MB Docket No. 15-149, at 13 (filed June 25, 2015) (Application).

[2] 47 U.S.C. §§ 214(a), 310(d).

6. Our public interest inquiry raises the question of whether the track record and outlook of Charter's current management would be carried over to New Charter's expanded footprint to the benefit of consumers. That is, whether New Charter's changed incentives and abilities would lead it down a path that is less consumer friendly and more hostile to online video competition.

7. We conclude that the transaction will materially alter the Applicants' incentives and abilities in ways that are potentially harmful to the public interest. First, New Charter's increased broadband footprint and desire to protect its video profits will increase incentives to impose data caps and usage-based prices in order to make watching online video more expensive, and in particular more expensive than subscribing to a traditional pay-TV bundle. Second, New Charter's larger number of broadband subscribers will increase its incentive and ability to raise prices on companies—including online video distributors—that interconnect with New Charter's network to deliver Internet traffic that consumers want. Third, the transaction will likely increase New Charter's incentive and ability to use its leverage over programmers to extract contractual terms that will frustrate the programmers' abilities to license content for online distribution. In doing so, New Charter will foreclose online video distributors from content that allows them to be more vibrant competitors to cable operators.

8. Because we find that the transaction will likely cause public interest harms, we impose conditions that ensure New Charter adheres more closely to Charter's prior consumer-friendly approach, and reduce the risk of public interest harms. The conditions also require New Charter to execute a number of its claimed public interest benefits so that the transaction's benefits will clearly outweigh the likely public interest harms.

9. First, for seven years, we prohibit New Charter from imposing data caps or charging usage-based pricing for its residential broadband service. This condition ensures that New Charter will continue Charter's past pricing practices and protects subscribers from paying fees designed to make online video consumption more expensive leading subscribers to stick with a traditional pay-TV bundle.

10. Second, to prevent New Charter from raising prices on companies that deliver Internet traffic—including online video traffic—requested by its broadband subscribers, we condition the transaction on a modified version of the Applicants' settlement-free interconnection commitment. The Applicants committed to interconnect with qualifying companies for free. Our modifications will ensure that companies may more easily qualify for free interconnection and that they may increase their traffic and expand their services at a greater rate before needing to pay to deliver content to New Charter's subscribers.

11. Third, because New Charter will have an increased incentive to use its greater leverage over programmers to frustrate online video competition, Commission staff worked in close coordination with the Department of Justice Antitrust Division to prohibit, for seven years, New Charter from entering or enforcing contractual terms that prevent or penalize programmers from distributing content online.

12. Fourth, the proposed transaction will likely result in a number of modest efficiencies and public benefits, including lower overhead and programming costs and increased enterprise competition. We intend the conditions we impose today to permit the transaction's likely efficiencies and benefits to proceed while mitigating the likely harms. We acknowledge, however, that conduct remedies may not eliminate all harms and require close monitoring to prevent evasion in ways that cannot be anticipated. We adopt a monitoring system designed to watch for any attempts by New Charter to avoid the letter and spirit of the conditions. We further require New Charter to undertake a build out program that will deploy high-speed broadband to 2 million more homes and a low-income broadband program for eligible households. Taken together, these guaranteed benefits provide confidence that the transaction's public interest benefits will outweigh any harms.

II. DESCRIPTION OF THE TRANSACTION

A. Description of the Parties

13. *Charter.* Charter provides broadband Internet, video, voice, and business services to over 5.8 million residential customers and has 386,000 commercial customers in 28 states.[3] Charter provides broadband Internet services to 4.8 million residential customers[4] and voice service to 2.4 million residential customers through VoIP technology.[5] Charter is currently the sixth-largest multichannel video programming distributor (MVPD) in the United States, serving 4.2 million residential customers over its all-digital network.[6] Charter also offers commercial services, including, "data networking, broadband Internet, managed video and music services, wireless backhaul, and fiber connectivity to commercial premises," to 386,000 commercial customers.[7]

14. *Time Warner Cable.* Time Warner Cable provides broadband Internet, video, and voice services to over 15 million customers across 30 states.[8] Time Warner Cable provides high-speed broadband Internet service to approximately 11.7 million residential customers, and voice services to approximately 5.3 million residential customers through VoIP technology.[9] Time Warner Cable provides advanced cable services to approximately 10.8 million residential video customers, making it the fourth-largest MVPD in the United States.[10] In addition, Time Warner Cable offers a variety of business services to local and regional customers, including video, voice, broadband Internet access, Ethernet networking, and managed hosting and cloud computing services.[11]

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[3] Application at 7. Charter operates subsidiaries authorized to provide domestic interstate telecommunications services in 27 states. Application of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to the Transfer of Control of Licenses and Authorizations, MB Docket No. 15-149, Joint Section 214 Application at 6-7, 11-12 (filed June 25, 2015) (Joint Section 214 Application).

[4] Application at 1. According to the Application, Charter currently offers a minimum of 60 Megabits per second (Mbps) to most of its residential broadband Internet access (BIAS) customers. *Id.*

[5] *Id.* In February 2016, Charter and Time Warner Cable filed their annual reports with updated subscriber information. *See* Charter Communications, Inc., Annual Report (Form 10-K) (Feb. 10, 2016) (Charter 2015 Annual Report); Time Warner Cable Inc., Annual Report (Form 10-K) (Feb. 12, 2016) (Time Warner Cable 2015 Annual Report). Charter reports that as of December 31, 2015, it served 6.7 million total residential customers of which 5.2 million subscribe to its high-speed BIAS and 4.3 million to its MVPD service. Charter 2015 Annual Report at 1. Time Warner Cable reports that as of December 31, 2015, it served 15.1 million residential customers of which 12.7 million subscribe to its high-speed BIAS and 10.8 million to its MVPD Service. Time Warner Cable 2015 Annual Report at 2-3. These figures do not materially alter our analysis of the competitive effects of the proposed transaction.

[6] Application at 8. After the Application was filed, the Commission approved the merger of AT&T and DIRECTV. *See generally Applications of AT&T and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 30 FCC Rcd 9131 (2015) (*AT&T-DIRECTV Order*). With the combination of these two firms, Charter became the sixth-largest MVPD, not the seventh as stated in the Application. *See* SNL Kagan 2Q2015.

[7] Application at 9.

[8] *Id.* at 10.

[9] *Id.* Time Warner Cable operates subsidiaries authorized to provide domestic interstate telecommunications services in 31 states. Joint Section 214 Application at 9-11, 15.

[10] Application at 11. The Applicants state that Time Warner Cable plans to convert to a seventy-five percent digital footprint by the end of 2016. *Id.*

[11] *Id.* at 11-12.

15. Time Warner Cable owns seventeen regional sports networks (RSNs), including Time Warner Cable SportsNet and Time Warner Cable Deportes—which carry Los Angeles Lakers basketball games and other regional programming.[12] Time Warner Cable also manages the distribution of SportsNet LA, which carries Los Angeles Dodgers games.[13] According to Applicants, Time Warner Cable possesses a 26.8 percent minority interest in SportsNet New York, but does not control its management, strategic direction, or distribution rights, and provides affiliate sales, advertising sales, and production and technical services to SportsNet LA.[14] Time Warner Cable (together with Bright House) has an attributable interest of 6.35 percent in the national MLB Network and a 28.9 percent interest in the iN Demand, L.L.C. (iN Demand) programming service.[15]

16. Time Warner Cable also owns and manages local news and lifestyle networks, including Time Warner Cable News NY1.[16] Time Warner Cable sells video and online advertising to local, regional, and national customers by itself, through a consortium of cable companies under NCC Media, and through a number of local and regional cable advertising interconnects that Time Warner Cable manages on behalf of itself and other MVPDs.[17] Finally, Time Warner Cable provides programming acquisition, network management, and maintenance services to Bright House pursuant to a management agreement.[18]

17. *Advance/Newhouse*. Advance/Newhouse is the parent of Bright House Networks, LLC,[19] which provides video, high-speed data, home security, and voice services to approximately 2.5 million residential and business customers in Florida, Alabama, Indiana, Michigan, California, and Georgia.[20] Bright House is the ninth-largest MVPD in the United States, serving over 2 million video customers, approximately 1.7 million of whom are located in the central Florida region.[21] Bright House owns and operates local news and high school sports networks in Florida.[22] Advance/Newhouse also holds a 32.81 percent attributable interest in national programming services provided by Discovery Communications

[12] Time Warner Cable Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 30-32, 34, 37, 37, 40, 161 (filed Oct. 13, 2015) (Time Warner Cable Response to Information Request); Application at 11-12.

[13] Application at 11.

[14] *Id.* The Applicants state that Time Warner Cable does not possess an ownership interest in SportsNet LA. *Id.* at 11 n.18.

[15] *Id.* at 11.

[16] *Id.* at 11.

[17] *Id.* at 12.

[18] *Id.*

[19] *Id.* Advance/Newhouse holds 33.3 percent of Time Warner Entertainment-Advance/Newhouse Partnership (TWE-A/N Partnership), which in turn is the sole member of Bright House, and Time Warner Cable currently holds the other 66.67 percent of TWE-A/N Partnership. *Id.* at 12 n.19. According to the Applicants, Advance/Newhouse exclusively tracks the economic performance of Bright House and has day-to-day management responsibility for and *de facto* control over the operation of the Bright House's systems. *Id.* The Applicants state that in order to facilitate, and simultaneously with, the transaction, the TWE-A/N Partnership would be restructured pursuant to the existing agreement among the parties, resulting in Advance/Newhouse being the sole member of Bright House. *Id.*

[20] *Id.* at 12. The Commission approved the merger of AT&T and DIRECTV after the filing of the Application—the combination resulted in Bright House becoming the nation's ninth-largest MVPD provider. *See supra* note 6.

[21] Application at 12.

[22] *Id.* at 13.

Inc., and Bright House owns 5.3 percent of iN Demand.[23] It also offers video, voice, data and cloud-based services to small and medium businesses and in addition provides fiber-based telecommunication services to midmarket and carrier customers, including cloud-based hosted voice, managed security, and cell backhaul to wireless carriers.[24]

B. The Proposed Transaction

18. On May 23, 2015, Charter, Time Warner Cable, and Advance/Newhouse entered into an agreement whereby the Applicants would merge into a new entity, referred to as New Charter, in a stock-and-cash transaction.[25] Under the terms of the agreement, Time Warner Cable stockholders would receive a combination of cash and stock that values Time Warner Cable at approximately $78.7 billion, and Advance/Newhouse would receive a combination of cash and partnership units that values Bright House at approximately $10.4 billion.[26] As the Applicants describe, there are three components to the transaction, each of which would be expected to occur simultaneously upon closing.[27]

19. *First*, Time Warner Cable would become a subsidiary of New Charter through a series of mergers.[28] Time Warner Cable shareholders would be given the choice to receive, for each share of Time Warner Cable stock, either (a) a combination of $100 per share and approximately 0.4891 shares of New Charter Class A common stock, or (b) a combination of $115 per share and approximately 0.4125 shares of New Charter Class A common stock.[29]

20. *Second*, Charter would merge with a subsidiary of New Charter, becoming a subsidiary of New Charter, and each then outstanding share of Charter Class A common stock would be converted into 0.9042 shares of New Charter Class A common stock.[30] New Charter would assume the Charter name.[31] Additionally, Liberty Broadband would contribute $4.3 billion in cash to New Charter in exchange for shares of New Charter Class A common stock, which, with the additional contribution of $700 million referred to below, would give Liberty Broadband a 17 to 19 percent interest in New Charter.[32]

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[23] Application, Exhibit H, Programming Interests Held by Advance/Newhouse Partnership or any Affiliated Persons.

[24] Bright House, *Bright House Networks Enterprise Solutions Expands Cloud Portfolio With Introduction of Two New Services*, Press Release (June 17, 2015), http://enterprise.brighthouse.com/content/dam/bhn/ent/news/Enterprise-Cloud-Services-Press-Release.pdf.

[25] *See* Application, Exhibit B, Agreement and Plan of Mergers dated as of May 23, 2015, among Time Warner Cable Inc., Charter Communications, Inc., CCH I, LLC, Amazon Corporation, Inc., Amazon Company II, LLC, and Amazon Company III, LLC.

[26] Application at 13.

[27] *Id.*

[28] *Id.*

[29] *Id.* at 14. The Applicants state that, prior to that conversion, Liberty Broadband and Liberty Interactive Corp. would contribute their shares of Time Warner Cable stock to the merger subsidiary in exchange for shares of the merger subsidiary on a one-for-one basis, which would be converted into shares of surviving Time Warner Cable on a one-for-one basis in the merger. *Id.*

[30] *Id.*

[31] *Id.*

[32] Charter Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 105 (filed Oct. 16, 2015 (public version)/Oct. 27, 2015 (confidential version)) (Charter Response to Information Request). According to the Applicants, these shares would be issued at a price equivalent to an exchange ratio of $176.95 per current

(continued….)

21. *Third*, New Charter would acquire Bright House, with limited exceptions, from Advance/Newhouse for approximately $10.4 billion, consisting of (a) approximately $2 billion in cash, (b) one share of New Charter Class B common stock carrying voting rights in New Charter,[33] and (c) common and preferred units, valued at approximately $8.4 billion, in a partnership that would be principally held by New Charter and that would hold all of Bright House's assets, as well as assets of Charter and Time Warner Cable.[34] The preferred units would be convertible into common units of the partnership, and the common units would be exchangeable by Advance/Newhouse, in certain circumstances, for cash or, at the election of New Charter, New Charter Class A common stock. Together, Advance/Newhouse's preferred and common partnership units would represent approximately 13 to 14 percent of New Charter on an as-converted, as-exchanged basis.[35]

22. In connection with the Bright House portion of the transaction, Liberty Broadband would contribute an additional $700 million in cash (for a total of $5 billion, including the $4.3 billion noted above) in exchange for shares of New Charter Class A common stock.[36] As noted above, Liberty Broadband would own approximately 17 to 19 percent of New Charter (with additional voting rights pursuant to a proxy granted by Advance/Newhouse and a proxy granted by Liberty Interactive Corp.) as a result of its investments.[37]

23. Upon the transaction's completion, majority ownership—67 to 69 percent on an as-converted, as-exchanged basis—of New Charter would be publicly held, and a majority of the 13-person board would not be nominated by either Advance/Newhouse (which would nominate two board members at closing) or Liberty Broadband (which would nominate three board members at closing).[38] In addition, Applicants state that Tom Rutledge, Charter's current President and CEO, would hold a board seat and be offered the position of Chairman and CEO of New Charter.[39] Following the transaction, New Charter would own and/or manage systems serving approximately 23.9 million customers—19.4 million broadband customers, 17.3 million video customers, and 9.4 million voice customers—across 41 states.[40]

(Continued from previous page)
Charter share, which represents Charter's closing price on May 20, 2015, the trading day on which Charter's offer to acquire Time Warner Cable was based. Application at 14 n.21.

[33] The Applicants state that New Charter would also receive nominal consideration in exchange for the issuance of this share. Application at 15 n.22.

[34] *Id.* at 14-15. According to the Applicants, these partnership units consist of (i) exchangeable common units valued at approximately $5.9 billion and (ii) convertible preferred units with a face amount of $2.5 billion, which would pay a six percent coupon. *Id.* at 15 n.23. In addition, the one share of Class B common stock held by Advance/Newhouse would be economically equivalent to Class A common stock but would initially possess a number of votes reflecting the voting power of the common units and the convertible preferred units held by Advance/Newhouse on an as-converted, as-exchanged basis. *Id.*

[35] *Id.* at 15. According to the Applicants, an "as-converted, as-exchanged basis" assumes that all of the partnership units held by Advance/Newhouse are converted into Class A common stock of New Charter. *Id.* at 15 n.24.

[36] *Id.* at 15.

[37] *See supra* note 32. The Applicants state that, by virtue of its exchange of Time Warner Cable shares, Liberty Interactive Corp. would receive approximately 1.7 to 1.9 percent of New Charter stock, and pursuant to a proxy agreement, Liberty Broadband would vote Liberty Interactive's New Charter shares. Application at 15 n.26.

[38] Application at 16.

[39] *Id.*

[40] *Id.* at 13, 16. The Applicants state that New Charter would be the third-largest MVPD. *Id.* at 16.

24. On June 25, 2015, Charter, Time Warner Cable, and Bright House filed the Application.[41] On July 27, 2015, the Commission released a public notice accepting the Application for filing.[42] On September 11, 2015, the Commission released a public notice establishing a pleading cycle seeking public comment on the Application.[43] The Commission received eleven petitions to deny and thousands of public comments and other filings in this proceeding.[44] In addition to building its record through public comment, the Commission requested additional information from the Applicants[45] and other entities.[46]

[41] *See supra* note 1. Subsequent to filing the Application and prior to release of the Public Notice accepting the Application for filing, the Applicants submitted additional information. *See* Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed July 2, 2015) (Charter July 2, 2015, *Ex Parte* Letter) (submitting broadband geographic overlap data); Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed July 10, 2015) (submitting data on expected cost savings and additional data on commercial service overlap); Letter from Samuel L. Feder, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed July 15, 2015) (submitting current interconnection policy and letter committing to settlement-free interconnection for three years) (Charter July 15, 2015, Peering Policy *Ex Parte* Letter).

[42] *See Commission Accepts for Filing Applications of Charter Communications, Inc., Time Warner Cable, Inc., and Advance/Newhouse Partnership for Consent to Transfer Control of Licenses and Authorizations*, Public Notice, 29 FCC Rcd 8107 (MB 2015) (*Accepted for Filing Public Notice*).

[43] *See Commission Seeks Comment on Applications of Charter Communications, Inc., Time Warner Cable, Inc., and Advance/Newhouse Partnership for Consent to Transfer Control of Licenses and Authorizations*, Public Notice, 30 FCC Rcd 9916 (MB 2015) (*Public Notice*).

[44] Petitions to Deny or to Impose Conditions were filed by: The Alliance for Community Media and the Alliance for Communications Democracy, COMPTEL, DISH Network, Entravision, Free Press, Lincolnville Networks, Inc. et al., Public Knowledge, Stop the Cap, the Greenlining Institute, the Writers Guild of America, West, Inc., and Zoom Telephonics, Inc. On Oct. 19, 2015, COMPTEL changed its name to INCOMPAS. Press Release, *Introducing INCOMPAS, a Unified Voice for Competition* (Oct. 19, 2015), http://www.incompas.org/Files/filings/2015/10%2019%2015%20Introducing%20INCOMPAS.pdf. In this Order, we refer to this filer as INCOMPAS throughout, except in citation to its Petition to Deny. The National Association of Broadcasters filed a petition to hold the transaction in abeyance pending the resolution of the Commission's 2010 and 2014 quadrennial review of its broadcast ownership rules under Section 202(h) of the Telecommunications Act of 1996. *See* Petition of the National Association of Broadcasters to Hold in Abeyance, MB Docket No. 15-149 (filed Oct. 12, 2015) (NAB Petition).

[45] Letter from William T. Lake, Chief, Media Bureau, FCC to Catherine Bohigian, Executive Vice President, Government Affairs, Charter, MB Docket No. 15-149 (Sept. 21, 2015) (Information Request to Charter); Letter from William T. Lake, Chief, Media Bureau, FCC, to Steven Teplitz, Senior Vice President, Government Relations, Time Warner Cable, MB Docket No. 15-149 (Sept. 21, 2015) (Information Request to Time Warner Cable); Letter from William T. Lake, Chief, Media Bureau, FCC, to Steven J. Horvitz, Counsel for Advance/Newhouse, MB Docket No. 15-149 (Sept. 21, 2015) (Information Request to Advance/Newhouse).

[46] *See, e.g.*, Letter from William T. Lake, Chief, Media Bureau, FCC, to Aaron Ahola, Deputy General Counsel, Akamai Technologies, Inc., MB Docket No. 15-149 (Oct. 9, 2015); Letter from William T. Lake, Chief, Media Bureau, FCC, to Stacy Fuller, Vice President, Federal Regulatory, AT&T Services, Inc., MB Docket No. 15-149 (Oct. 9, 2015); Letter from William T. Lake, Chief, Media Bureau, FCC to Melissa Newman, Vice President, Federal Regulatory Policy and Affairs, CenturyLink, Inc., MB Docket No. 15-149 (Oct. 9, 2015).

The record includes responses to those requests,[47] subject to the protections of the *Protective Order* issued in this proceeding.[48]

25. In addition to Commission review, the proposed transaction is subject to review by the United States Department of Justice (DOJ) pursuant to its authority in Section 7 of the Clayton Act.[49]

III. STANDARD OF REVIEW AND PUBLIC INTEREST FRAMEWORK

26. Pursuant to Sections 214(a) and 310(d) of the Act, we must determine whether the proposed transfer of certain licenses and authorizations held and controlled by the Applicants will serve the public interest, convenience, and necessity.[50] In making this determination, we first assess whether the proposed transaction complies with the specific provisions of the Act,[51] other applicable statutes, and the Commission's rules.[52] If the transaction would not violate a statute or rule, we consider whether it could result in public interest harms by substantially frustrating or impairing the objectives or implementation of the Act or related statutes.[53] We then employ a balancing test weighing any potential public interest harms of the proposed transaction against any potential public interest benefits.[54] The Applicants bear the burden of proving, by a preponderance of the evidence, that the proposed transaction,

[47] *See, e.g.*, Charter Response to Information Request; Time Warner Cable Response to Information Request; Advance/Newhouse Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Steven J. Horvitz, Counsel for Advance/Newhouse Partnership, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Oct. 13, 2015) (Advance/Newhouse Response to Information Request).

[48] The Commission adopted a *Protective Order* to (i) limit access to proprietary or confidential information filed in this proceeding and (ii) more strictly limit access to certain particularly competitive sensitive information. *See Applications of Charter Communications, Inc., Time Warner Cable, Inc., and Advance/Newhouse Partnership for Consent to Assign or Transfer Control of Licenses and Authorizations*, Order, 30 FCC Rcd 10360, Attach. (2015) (*Protective Order*). In this Order, Highly Confidential Information, as defined in the *Protective Order*, will be marked by the terms "**[BEGIN HIGHLY CONF. INFO.]**" and "**[END HIGHLY CONF. INFO.]**," and Confidential Information, as defined in the *Protective Order*, will be marked by the terms "**[BEGIN CONF. INFO.]**" and "**[END CONF. INFO.]**" as appropriate. Such information will be redacted from the publicly available version of the Order. The unredacted information will be available upon request to persons qualified to view it under the *Protective Order*.

[49] 15 U.S.C. § 18.

[50] 47 U.S.C. §§ 214(a), 310(d).

[51] Section 310(d) of the Act requires that we consider applications for transfer of Title III licenses under the same standard as if the proposed transferee were applying for licenses directly under Section 308 of the Act. 47 U.S.C. § 310(d).

[52] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9139, para. 18 n.35; *Applications of Comcast Corporation, General Electric Company, and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licenses*, Memorandum Opinion and Order, 26 FCC Rcd 4238, 4247, para. 22, n.42 (2011) (*Comcast-NBCU Order*); *Applications for Consent to the Assignment and/or Transfer of Control of Licenses Adelphia Communications Corp., Assignors, to Time Warner Cable, Inc., Assignees; Adelphia Communications Corp., Assignors and Transferors, to Comcast Corp., Assignees and Transferees; Comcast Corp., Transferor, to Time Warner Inc., Transferee; Time Warner Inc., Transferor, to Comcast Corp., Transferee*, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8217, para. 23 (2006) (*Adelphia-TWC Order*); *Application of EchoStar Communications Corp., General Motors Corp., and Hughes Electronics Corp. (Transferors) and EchoStar Communications Corp. (Transferee)*, Hearing Designation Order, 17 FCC Rcd 20559, 20574, para. 25 (2002) (*EchoStar-DIRECTV HDO*).

[53] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 18; *Comcast-NBCU Order*, 26 FCC Rcd at 4247, para. 22; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20574, para. 25.

[54] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 18; *General Motors Corp. and Hughes Electronics Corp., Transferors, and the News Corporation, Transferee*, MB Docket No. 03-124, Memorandum Opinion and Order, 19 FCC Rcd 473, 483, para. 15 (2004) (*News Corp.-Hughes Order*).

on balance, serves the public interest.[55] If we are unable to find that the proposed transaction serves the public interest for any reason, or if the record presents a substantial and material question of fact, we must designate the Application for hearing.[56]

27. Our public interest evaluation necessarily encompasses the "broad aims of the Communications Act,"[57] which include, among other things, a deeply rooted preference for preserving and enhancing competition in relevant markets,[58] accelerating private sector deployment of advanced services,[59] promoting a diversity of information sources and services to the public,[60] and generally managing the spectrum in the public interest.[61] Our public interest analysis also entails assessing whether the proposed transaction would affect the quality of communications services or result in the provision of new or additional services to consumers.[62] In conducting this analysis, we may consider technological and market changes, and the nature, complexity, and speed of change of, as well as trends within, the communications industry.[63]

28. Our competitive analysis, which forms an important part of the public interest evaluation, is informed by, but not limited to, traditional antitrust principles.[64] The Commission and the DOJ each has independent authority to examine the competitive impacts of proposed communications mergers and transactions involving transfers of Commission licenses, but the standards governing the Commission's

[55] 47 U.S.C. § 309(e); *see AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 18; *Adelphia-TWC Order*, 21 FCC Rcd at 8217, para. 23; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20574, para. 25.

[56] 47 U.S.C. 309(e); *see AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 18; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20562-63, para. 3. Section 309(e)'s requirement applies only to those applications to which Title III of the Act applies. We are not required to designate for hearing applications for the transfer or assignment of Title II authorizations when we are unable to find that the public interest would be served by granting the applications, *see ITT World Communications, Inc. v. FCC*, 595 F.2d 897, 901 (2d Cir. 1979), but may do so if we find that a hearing would be in the public interest.

[57] *Western Union Division, Commercial Telegrapher's Union, A.F. of L. v. United States*, 87 F. Supp. 324, 335 (D.D.C. 1949), *aff'd*, 338 U.S. 864 (1949); *see AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 19; *see also FCC v. RCA Communications, Inc.*, 346 U.S. 86, 93-95 (1953).

[58] 47 U.S.C. §§ 521(6), 532(a); *see Applications for Consent to the Transfer of Control of Licenses and Authorizations by Time Warner, Inc. and America Online, Inc. to AOL Time Warner Inc.*, Memorandum Opinion and Order, 16 FCC Rcd 6547, 6555-56 para. 22 (2001) (*AOL-Time Warner Order*).

[59] *See* 47 U.S.C. §§ 254, 332(c)(7), 1302; Telecommunications Act of 1996, Preamble, Pub. L. No. 104-104, 110 Stat. 56 (1996) (one purpose of the Act is to "accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services").

[60] 47 U.S.C. §§ 521(4), 532(a); *see Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 663 (1994) ("[I]t has long been a tenet of national communications policy that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public.") (quoting *United States v. Midwest Video Corp.*, 406 U.S. 649, 668, n.27 (1972)) (internal quotation marks omitted).

[61] *See* 47 U.S.C. §§ 301, 303, 307, 309, 310(d).

[62] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 19; *Adelphia-TWC Order*, 21 FCC Rcd at 8218, para. 24; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575, para. 26.

[63] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 19; *Comcast-NBCU Order*, 26 FCC Rcd at 4248, para. 23; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575, para. 26.

[64] *See Satellite Bus. Sys.*, 62 FCC 2d 997, 1068-73, 1088 (1977), *aff'd sub nom United States v. FCC*, 652 F.2d 72 (D.C. Cir. 1980) (*en banc*); *see also Northeast Utils. Serv. Co. v. FERC*, 993 F.2d 937, 947 (1st Cir. 1993) (public interest standard does not require agencies "to analyze proposed mergers under the same standards that the Department of Justice . . . must apply"); *AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 20.

competitive review differ somewhat from those applied by the DOJ.[65] The Commission, like the DOJ, considers how a transaction would affect competition by defining a relevant market, looking at the market power of incumbent competitors, and analyzing barriers to entry, potential competition, and the efficiencies, if any, that may result from the transaction.[66]

29. The DOJ, however, reviews telecommunications mergers pursuant to Section 7 of the Clayton Act, and if it sues to enjoin a merger, it must demonstrate to a court that the merger may substantially lessen competition or tend to create a monopoly.[67] The DOJ review is consequently limited solely to an examination of the competitive effects of the acquisition, without reference to diversity, localism, or other public interest considerations.[68] Moreover, the Commission's competitive analysis under the public interest standard is broader. For example, the Commission considers whether a transaction would enhance, rather than merely preserve, existing competition, and often takes a more expansive view of potential and future competition in analyzing that issue.[69]

30. Finally, our public interest authority enables us, where appropriate, to impose and enforce transaction-related conditions to ensure that the public interest is served by the transaction.[70] Specifically, Section 303(r) of the Communications Act authorizes the Commission to prescribe restrictions or conditions not inconsistent with law that may be necessary to carry out the provisions of the Act.[71] Similarly, Section 214(c) of the Act authorizes the Commission to attach to the certificate "such terms

[65] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9140, para. 20; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575, para. 27; *see also Adelphia-TWC Order*, 21 FCC Rcd at 8219, para. 25.

[66] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 20; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575, para. 27; *see also Applications of Sprint Nextel Corp. and SoftBank Corp. and Starburst II, Inc. for Consent to Transfer Control of Licenses and Authorizations*, IB Docket No. 12-343, Memorandum Opinion and Order, Declaratory Ruling, and Order on Reconsideration, 28 FCC Rcd 9642, 9652, para. 25 (2013) (*SoftBank-Sprint Order*).

[67] 15 U.S.C. § 18; *see AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 21; *Comcast-NBCU Order*, 26 FCC Rcd at 4248, para. 24; *News Corp.-Hughes Order*, 19 FCC Rcd at 484, para. 17.

[68] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 21; *Comcast-NBCU Order*, 26 FCC Rcd at 4248, para. 24; *SoftBank-Sprint Order*, 28 FCC Rcd at 9652, para. 25.

[69] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 21; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575-76, para. 27. *Cf. Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 415 (2004) ("The 1996 Act is, in an important respect, much more ambitious than the antitrust laws. It attempts '*to eliminate the monopolies* enjoyed by the inheritors of AT&T's local franchises.' Section 2 of the Sherman Act, by contrast, seeks merely to prevent *unlawful monopolization*. It would be a serious mistake to conflate the two goals.") (emphasis in original) (quoting *Verizon Commc'ns v. FCC*, 535 U.S. 467, 476 (2002) (internal citations omitted)).

[70] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22; *Comcast-NBCU Order*, 26 FCC Rcd at 4249, para. 25*; EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575, para. 27; *see also Application of WorldCom, Inc. and MCI Commc'ns Corp. for Transfer of Control of MCI Communications Corporation to WorldCom, Inc.*, Memorandum Opinion and Order, 13 FCC Rcd 18025, 18032, para. 10 (1998) (*WorldCom-MCI Order*) (stating that the Commission may attach conditions to the transfers).

[71] 47 U.S.C. § 303(r); *see AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22; *Adelphia-TWC Order*, 21 FCC Rcd at 8219, para. 26; *WorldCom-MCI Order*, 13 FCC Rcd at 18032, para. 10 (citing *FCC v. Nat'l Citizens Comm. for Broad.*, 436 U.S. 775 (1978) (upholding broadcast-newspaper cross-ownership rules adopted pursuant to Section 303(r))); *United States v. Sw. Cable Co*., 392 U.S. 157, 178 (1968) (holding that Section 303(r) permits the Commission to order a cable company not to carry broadcast signal beyond station's primary market); *United Video, Inc. v. FCC*, 890 F.2d 1173, 1182-83 (D.C. Cir. 1989) (affirming syndicated exclusivity rules adopted pursuant to Section 303(r) authority).

and conditions as in its judgment the public convenience and necessity may require."[72] Indeed, our extensive regulatory and enforcement experience enables us, under this public interest authority, to impose and enforce conditions to ensure that the transaction will yield net public interest benefits.[73] In exercising this authority to carry out our responsibilities under the Act and related statutes, we have imposed conditions to confirm specific benefits or remedy harms likely to arise from transactions.[74]

IV. COMPLIANCE WITH COMMUNICATIONS ACT AND FCC RULES AND POLICIES

31. Section 310(d) of the Act requires that we make a determination as to whether the Applicants have the requisite qualifications to hold Commission licenses.[75] Among the factors the Commission considers in its public interest review is whether the applicant for a license has the requisite "citizenship, character, financial, technical, and other qualifications."[76] Therefore, as a threshold matter, the Commission must determine whether the applicants to the proposed transaction—the transferors and the transferee—meet the requisite qualifications requirements to hold and transfer licenses under Section 310(d) and the Commission's rules.[77]

32. *Discussion.* We note that no party has raised an issue with respect to the basic qualifications of Time Warner Cable and Bright House. The Commission generally does not reevaluate the qualifications of assignors unless issues related to basic qualifications have been sufficiently raised in petitions to warrant designation for hearing.[78] We find that there is no reason to reevaluate the requisite citizenship, character, financial, technical, or other basic qualifications under the Communications Act and our rules, regulations, and policies of either Time Warner Cable or Bright House. In addition, no parties have alleged that Charter lacks the requisite qualifications. The Commission has previously found Charter to be qualified to hold Commission licenses.[79] We find that Charter continues to have the requisite citizenship, character, financial, technical, and other basic qualifications under the Communications Act and our rules, regulations, and policies.

33. As noted above, for the proposed transaction to be in the public interest, it must be in compliance with the Communications Act, other applicable statutes, and the Commission's rules.[80] We find that the proposed transaction will not violate any statutory provision or Commission rule. We

[72] 47 U.S.C. § 214(c); *see AT&T Inc. and BellSouth Corp. Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5674, para. 22 (2007); *Adelphia-TWC Order*, 21 FCC Rcd at 8219, para. 26; *WorldCom-MCI Order*, 13 FCC Rcd at 18031-32, para. 10.

[73] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22; *Comcast-NBCU Order*, 26 FCC Rcd at 4249, para. 25; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575, para. 27.

[74] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22; *Adelphia-TWC Order*, 21 FCC Rcd at 8219, para. 26.

[75] 47 U.S.C. § 310(d).

[76] 47 U.S.C. §§ 308, 310(d); *see also, e.g. AT&T-DIRECTV Order*, 30 FCC Rcd at 9142, para. 24; *News Corp.-Hughes Order*, 19 FCC Rcd at 485 para. 18; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20576, para. 28.

[77] *See* 47 U.S.C. § 310(d); *see also, e.g., AT&T-DIRECTV Order*, 30 FCC Rcd at 9142, para. 24; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20576, para. 28.

[78] *See, e.g., AT&T-DIRECTV Order*, 30 FCC Rcd at 9142, para. 25; *SoftBank-Sprint Order*, 28 FCC Rcd at 9653 para. 27.

[79] *See, e.g., Applications Granted for the Transfer of Control of Bresnan Broadband Holdings, LLC to Charter Communications, Inc.*, Public Notice, DA 13-1088 (WCB 2013).

[80] *See, e.g., AT&T-DIRECTV Order*, 30 FCC Rcd at 9154, para. 52; *Comcast-NBCU Order*, 26 FCC Rcd at 4247, para. 22; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20574, para. 25.

address the argument of Zoom Telephonics, Inc. (Zoom) that Charter's cable modem policies violate Section 629 of the Act and various FCC regulations[81] in Section V.G.3 below.

V. POTENTIAL PUBLIC INTEREST HARMS

A. Applicants' Incentives to Harm OVD Competition

34. Online video distributors (OVDs) increasingly compete with MVPDs for "viewing time, subscription revenue, and advertising revenue."[82] The potential for OVDs to place competitive pressure on New Charter, for all or portions of the MVPD bundle, is likely to increase and place pressure on New Charter's video profits. Before discussing the specific harms that could result from the proposed transaction, we discuss generally the Applicants' incentives to harm OVDs[83] because it is relevant to several of the theories of harm we consider below. In particular, we consider whether the proposed transaction would increase the combined firm's incentive to use either its broadband network or its increased bargaining position relative to programmers to limit OVD competition. We address separately below the competitive effects in the markets for wired cable and fiber broadband Internet access service (BIAS), interconnection, and MVPD service. Because OVDs represent an increasingly competitive alternative to the Applicants' video services, and the Applicants control broadband networks that many consumers use to access OVD services, we consider the record regarding the Applicants' general views of OVDs and their increasing threat to New Charter's business. Based on that record, for the reasons described below, we find that New Charter would have an increased incentive to harm OVDs.

35. *Positions of the Parties.* Several commenters argue that New Charter would have an increased incentive and ability to harm OVDs in order to protect its video offerings.[84] Its larger footprint would make OVD foreclosure more profitable.[85] According to DISH, the Applicants already view at least some OVDs as competitors.[86] Specifically, DISH asserts that online video services which offer access to linear programming, such as its Sling TV, compete directly with the traditional pay-TV services the Applicants offer, creating a particularly strong incentive for New Charter to harm such services.[87] DISH

[81] Petition to Deny of Zoom Telephonics, Inc., MB Docket No. 15-149 (filed Oct. 13, 2015) (Zoom Petition).

[82] *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Sixteenth Report, 30 FCC Rcd 3253, 3289, para. 83 (2015) (*Sixteenth Video Competition Report*).

[83] For purposes of this Order, an OVD is an entity that distributes video programming (1) by means of the Internet or other Internet Protocol (IP)-based transmission path; (2) not as a component of an MVPD subscription or other managed video service; and (3) not solely to customers of a broadband Internet access service owned or operated by the entity or its affiliates.

[84] *See, e.g.*, Petition to Deny of DISH Network, MB Docket No. 15-149, at 4, 15-20, 46-55, 68 (filed Oct. 13, 2015) (DISH Petition); Petition to Deny of Free Press, MB Docket No. 15-149, at 18, 23-39 (filed Oct. 13, 2015) (Free Press Petition); Petition to Deny of Public Knowledge, Common Cause, Consumers Union, and Open Mic, MB Docket No. 15-149, at 6-18 (filed Oct. 13, 2015) (Public Knowledge et al. Petition); Petition to Deny of Writers Guild of America, West, Inc., MB Docket No. 15-149, at 13-16, 23-30 (filed Oct. 13, 2015) (WGAW Petition); Free Press Reply at 5; Public Knowledge Reply at 2-6; Writers Guild of America, West, Inc. Reply at 20-22 (WGAW Reply); Letter from Stop Mega Cable Coalition to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2, 6 (filed Feb. 9, 2016) (Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter); Letter from Ellen Stutzman, Senior Director of Research and Public Policy, WGAW, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2-5 (filed Feb. 10, 2016) (WGAW Feb. 10, 2016, *Ex Parte* Letter); Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH Network Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Feb. 26, 2016) (DISH Feb. 26, 2016, *Ex Parte* Letter).

[85] DISH Petition at 48-50.

[86] *Id.* at 46-48.

[87] DISH Petition at 15-20, 55; DISH Reply at 12; Letter from Pantelis Michalopoulos and Stephanie A. Roy, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Dec. 7, 2015) (DISH (continued….)

argues that Charter's characterization of OVDs as "complementary" to its video offerings is an attempt to forestall "cord cutting" and prevent the rise of OVDs as direct competitors to its MVPD services.[88] Commenters argue that the Applicants' high margins on broadband do not deter them from harming OVDs because consumers are unlikely or unable to switch BIAS providers in response to harmful actions by the Applicants, and because the Applicants want to protect their large video profits.[89] In particular, Public Knowledge argues that, because Charter faces more competition in the video marketplace than in broadband, it has incentives to use its control over its broadband network to disadvantage OVDs that compete with its video products.[90]

36. The Applicants respond that New Charter would have no incentive or ability to harm OVDs.[91] Specifically, the Applicants argue that foreclosing OVDs would be contrary to New Charter's economic interest in expanding its broadband subscribership.[92] They contend that New Charter would, in fact, have an increased incentive to promote OVDs, because its gross margin on broadband would exceed those of its video business, and because OVDs drive broadband demand.[93] The Applicants also assert that many OVD services complement Charter's video products by filling gaps in Charter's video-on-demand (VOD) content library.[94] For example, the Applicants suggest that, in some instances, offering OVD

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Dec. 7, 2015, *Ex Parte* Letter); Letter from Pantelis Michalopoulos and Stephanie A. Roy, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2-4 (filed Dec. 21, 2015) (DISH Dec. 21, 2015, *Ex Parte* Letter); Letter from Pantelis Michalopoulos and Stephanie A. Roy, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 6-11 (filed Jan. 27, 2015) (DISH Jan. 27, 2016, *Ex Parte* Letter); Letter from Pantelis Michalopoulos and Stephanie A. Roy, Counsel for DISH Network Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attach. at 17-20 (filed Feb. 12, 2016) (DISH Feb. 12, 2016, *Ex Parte* Letter).

[88] DISH Reply at 11-13; *see also* DISH Dec. 7, 2015, *Ex Parte* Letter at 3; DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 12.

[89] DISH Petition at 50-54; WGAW Petition at 2-3; DISH Reply at 8-10; Letter from Pantelis Michalopoulos and Stephanie A. Roy, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Dec. 2, 2015) (DISH Dec. 2, 2015, *Ex Parte* Letter); DISH Jan. 27, 2016, *Ex Parte* Letter at 5-6; WGAW Feb. 10, 2016, *Ex Parte* Letter at 2, 4; DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 7-11. *See also* DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 11 ("Post-transaction, video will be even more profitable because of significant cost savings in negotiations with programmers.").

[90] Public Knowledge Reply at 3-5.

[91] Application at 43-51; Opposition to Petitions to Deny and Response to Comments of Charter, Time Warner Cable, and Advance/Newhouse, transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 16-19, 52-53, 69 (filed Nov. 2, 2015) (Opposition); *see also* Free State Foundation Comments at 16-20 (Free State Comments).

[92] Application at 46-47; Application, Declaration of Fiona M. Scott Morton, transmitted by letter from John L. Flynn, Counsel for Charter, and Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at paras. 52-60 (filed Jun. 25, 2015) (Scott Morton Decl.); Opposition at 16-17; Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Jan. 14, 2016) (Charter Jan. 14, 2016, *Ex Parte* Letter).

[93] Application at 49; Scott Morton Decl. at paras. 43, 57-61; Opposition, Reply Declaration of Fiona Scott Morton, transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at paras. 77-81, 100-32 (filed Nov. 2, 2015) (Scott Morton Reply Decl.); Charter Jan. 14, 2016, *Ex Parte* Letter at 2-3, 5-6.

[94] Scott Morton Decl. at para. 58; Opposition at 16-18; Scott Morton Reply Decl. at paras. 19-21, 31-49, 77, 82-100; Charter Jan. 14, 2016, *Ex Parte* Letter at 3. The Applicants also argue that New Charter would be a stronger partner for OVDs, and that integration of OVD services into set-top boxes "creates a competitive advantage and will

(continued….)

content alongside an MVPD service may provide New Charter a less costly alternative to acquiring costly content rights itself.[95] The Applicants conclude that Charter's current and past business practices, together with its transaction-specific commitments, reflect its intent to continue supporting OVDs.[96]

37. The Applicants submitted an economic study—a critical loss analysis—purportedly showing that OVD foreclosure would not be profitable for the new firm.[97] A critical loss analysis assumes that a company takes a certain action, and compares the increased profit from increased sales of one product with the predicted decrease in profits resulting from the loss of sales of another product. Here, for example, the Applicants argue that if New Charter were to foreclose or hinder OVDs from reaching its customers, in response, some of those customers would purchase New Charter's video service (including more premium channels and VOD offerings), while others would stop purchasing its broadband service (perhaps switching to another BIAS provider).[98] The Applicants claim that broadband is more profitable than video services and that this trend would become more pronounced in the future.[99] In their critical loss analysis, the Applicants argue that based on their estimate of the number of broadband subscribers that are also Netflix subscribers, the new firm would lose an average of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per month for each subscriber that switched to another BIAS provider and that it would gain an average of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per month for each subscriber that purchased MVPD video from the new firm as the result of OVD foreclosure.[100] As a result, the Applicants state that more than **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** subscribers would have to newly purchase video for each subscriber that left the new firm for another BIAS provider, in order for OVD foreclosure to be profitable for the new firm.[101] They conclude that New Charter therefore would not have an incentive to foreclose OVDs.[102]

38. *Discussion.* As discussed in detail below, we conclude that New Charter will have an increased incentive to discriminate against or harm OVDs.[103] As we have found in other proceedings,

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provide even more incentive for us to provide our customers with access to OVD services." Application at 51; *see also* Scott Morton Reply Decl. at paras. 23-49, 70-75.

[95] Scott Morton Reply Decl. at para. 32; *see also* Thomson Reuters StreetEvents, Edited Transcript, CHTR - Charter Communications Inc. at UBS Global Media and Communications Conference, at 11-12 (Dec. 8, 2014) (quoting Charter President and CEO Tom Rutledge: "to the extent I can save money by not paying somebody because their content is generally available elsewhere, I think that's an opportunity").

[96] Application at 47-51; Opposition at 18-19; Scott Morton Reply Decl. at paras. 133-48.

[97] *See* Opposition, Analysis of Video Programming Foreclosure Issues Involving Dr. John Malone and Advance/Newhouse Partnership, Reply Declaration of Steven C. Salop, Robert Stillman, Jarrod R. Welch and Serge Moresi, transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at para. 21 (filed Nov. 2, 2015) (Salop Decl.).

[98] *See* Scott Morton Decl. at para. 39; U.S. Department of Justice and the Federal Trade Commission Horizontal Merger Guidelines, Aug. 19, 2010, § 4.1.3 at 12 (*2010 DOJ/FTC Horizontal Merger Guidelines*).

[99] *See* Scott Morton Decl. at para. 41.

[100] *Id.* at para. 51.

[101] *Id.*

[102] *See id.* at para. 61.

[103] The Commission has recognized the incentive of Internet access providers such as Charter to discriminate against unaffiliated OVDs. *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Fourteenth Report, 27 FCC Rcd 8610, 8731, 8733, paras. 271, 274 (2012) ("MVPDs have the ability and incentive to degrade the broadband service available to unaffiliated OVDs.") (*Fourteenth Video Competition Report*); *Preserving the Open Internet*, Report and Order, 25 FCC Rcd 17905, 17916, para. 22 (*2010 Open Internet*
(continued….)

"broadband providers have incentives to interfere with and disadvantage the operation of third-party Internet-based services that compete with their own services."[104] We disagree with the Applicants' contention that New Charter's incentive to attract and retain broadband subscribers would preclude any incentives to engage in conduct that hinders consumers' access to competing OVDs. Moreover, as the Commission has stated in prior proceedings, many end users may have limited choice among BIAS providers,[105] and switching costs can be a significant impediment to the ability of consumers to change BIAS providers in response to an MVPD's degradation of a competing OVD service.[106]

39. We find that New Charter will have greater incentives to harm those OVDs that serve as a substitute for, and therefore compete with, New Charter's video services. Charter claims that New Charter would have incentives to support OVDs because their services complement its own video services. However, as the Applicants' expert Dr. Fiona Scott Morton acknowledges, "[t]o determine if New Charter will have an incentive to foreclose OVDs, one needs to compare the benefits and losses New Charter would get from foreclosure," and "[t]he benefits will depend on whether OVDs offer services that are substitutes or complements for New Charter services."[107] Moreover, Charter acknowledges that "at least for many customers, whether an OVD operates as a complement or substitute to MVPDs depends in significant part on the video programming offered" and that "[s]ome OVD services may be more similar to traditional video."[108] Charter acknowledges that "DISH SlingTV and Sony Vue include streaming of content such as broadcast and extended basic channels also found on linear traditional video" and "[f]or some subset of customers, these products may appear to be differentiated substitutes for traditional video."[109] In addition, although some OVDs—particularly those that offer primarily prior season and library VOD content—may complement Charter's comparatively limited VOD offerings today, such OVDs may have more overlap with the combined company's more extensive VOD offerings post-

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Order) ("[B]roadband providers have incentives to interfere with the operation of third-party Internet-based services that compete with the providers' revenue-generating telephony and/or pay-television services.").

[104] *Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, 5662, para. 140 (2015) (*2015 Open Internet Order*).

[105] *See 2015 Open Internet Order*, 30 FCC Rcd at 5631, para. 81 n.134 ("data suggests that meaningful alternative broadband options may be largely unavailable to many Americans, further limiting the ability to switch providers. Based on the submissions from various commenters, it appears that between 65% and 70% of households have at most two options for high speed Internet access."); *see also 2010 Open Internet Order*, 25 FCC Rcd at 17923, para. 32; Appendix C, Section II.A.1., Table 1 (showing that, nationwide, 97 percent of households have two or fewer providers of BIAS at download speeds of 25 Mbps).

[106] *See 2015 Open Internet Order*, 30 FCC Rcd at 5631-62, para. 81 ("[t]he broadband provider's position as gatekeeper is strengthened by the high switching costs consumers face when seeking a new service. . . . These costs may limit consumers' willingness and ability to switch carriers, if such a choice is indeed available."); *see also 2010 Open Internet Order*, 25 FCC Rcd at 17924-25, para. 34; *see infra* Section V.B.1.

[107] Scott Morton Decl. at para. 38.

[108] Charter Response to Information Request at 220-21; *see also* Charter Comments, MB Docket No. 14-261, at 2 (filed Mar. 3, 2015). The Commission has found that "individual consumers seeking to view specific video programs, may perceive OVDs as a substitute, a supplement, and a complement to their MVPD video service" depending on the video content offered. *Sixteenth Video Competition Report*, 30 FCC Rcd at 3352-53, para. 215.

[109] Charter Response to Information Request at 221; *see also* DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 17 **[BEGIN HIGHLY CONF. INFO.]**

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transaction, making them less complementary and more of a substitute for New Charter's video services and giving New Charter a greater incentive to harm them than Charter has today.[110]

40. The Applicants argue that the new firm's focus on broadband implies that it would not harm OVDs but would instead use its broadband business to promote OVDs and other edge providers.[111] However, the Applicants fail to support their contention that New Charter's competitive strategy and its future profitability depend more on broadband than on traditional video. In fact, we find that, despite the growth of the Applicants' broadband businesses, video services would remain New Charter's largest source of revenue by a substantial margin and a significant source of profit. New Charter will have an increased incentive to protect that business against perceived threats. For instance, the Applicants' aggregate video revenues were approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** billion in 2014, compared to approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** billion for broadband.[112]

41. Moreover, when discussing New Charter's incentives regarding OVDs, the only examples they offer are of subscription video-on-demand providers (SVODs) like Netflix and Amazon Prime that have primarily focused, thus far, on distributing arguably complementary programming. The Applicants ignore OVDs that are closer substitutes for their video services such as Sling TV, Sony Vue, and other slim or full bundle OVD competitors that may be launching in the future. And while Netflix and Amazon Prime have focused on movies and past seasons of TV, they are increasingly competing with portions of the MVPD programming bundle by distributing more original programming, thus making Charter's past actions towards them less predictive of New Charter's future actions. The Applicants' claimed openness to complementary OVDs that provide unique programming therefore sidesteps the Applicants' incentive to harm those OVDs that compete more directly with its MVPD service.

42. The Applicants' internal documents support our conclusion. Many documents indicate that, despite some instances of **[BEGIN HIGHLY CONF. INFO.]**
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[END HIGHLY CONF. INFO.].[114] Nonetheless, there is also evidence that the Applicants recognize the potential for increased competition from online platforms.[115] While we do not believe the mere fact that the Applicants have **[BEGIN HIGHLY CONF. INFO.]**
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inherently reflects an intent to harm those services, the Applicants' internal documents also reveal **[BEGIN HIGHLY CONF. INFO.]**

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[110] *See* Application at 10; Charter Response to Information Request at 19-21; Time Warner Cable Response to Information Request at 15-16.

[111] *See* Scott Morton Decl. at para. 37.

[112] *See* Charter Response to Information Request, Exhibit 117-1 PIS Tables 4-9.

[113] *See infra* Section V.D.1.

[114] *See* Charter Response to Information Request at 10-11, 15, 92-97, 139-45; Charter Jan. 14, 2016, *Ex Parte* Letter at 5-6. As noted above, DISH argues that Charter's attempts to **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* DISH Reply at 11-13; DISH Dec. 7, 2015, *Ex Parte* Letter at 3; *see also* DISH Jan. 27, 2016, *Ex Parte* Letter at 8-10. We disagree and find instead that **[BEGIN HIGHLY CONF. INFO.]**

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[115] *See, e.g.*, Application at 59-60; Charter Response to Information Request at 220-22.

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Moreover, the Applicants' internal documents also demonstrate concern with **[BEGIN HIGHLY CONF. INFO.]**

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[116] *See, e.g.*, Charter Response to Information Request, Exhibit 3(d)–1 at 4, **[BEGIN HIGHLY CONF. INFO.]**

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[END HIGHLY CONF. INFO.]; CHR2-DOJ-00000933897 at 2, **[BEGIN HIGHLY CONF. INFO.]**

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[117] *See, e.g.*, CHR-DOJ-0000730527 at 4, **[BEGIN HIGHLY CONF. INFO.]**

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[END HIGHLY CONF. INFO.]; CHR2-DOJ-00000055364 at 3, **[BEGIN HIGHLY CONF. INFO.]**

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(continued….)

43. We also find that the Applicants' critical loss analysis is flawed in several respects. First, the analysis is premised on the assumption that a consumer could and would switch to a different BIAS provider in response to New Charter's behavior. As the Commission has noted, however, lack of competitive alternatives[118] and prohibitively high switching costs[119] can present barriers to switching for consumers. Second, consumers may switch only if they believe that New Charter—and not the edge provider—is responsible for the problem and that switching would resolve the issue. Finally, the evidence shows that, in fact, consumers do not switch BIAS providers in these circumstances. During the Time Warner Cable/Netflix interconnection dispute, for example, Time Warner Cable customers did not abandon its BIAS when the quality of Netflix's stream deteriorated.[120]

44. Second, the Applicants have not adequately justified how they calculated the gross margins of providing video and broadband service (which they interpret as an indicator of the profitability of each service). In particular, they did not indicate if and how shared revenues or costs were allocated across the two services in their gross margin calculations; and nor did they present a sensitivity analysis of how their gross margin estimates would vary if such revenue or cost allocation assumptions were changed.[121] This is important because the revenues earned on, and any costs shared by, a double- or triple-play service could be attributed in a myriad of ways between video, broadband and voice services. An approach used to ensure that a range of revenue and cost allocation assumptions is examined and that the implications of these assumptions are considered is a sensitivity analysis. A sensitivity analysis would show how the results would change depending on how the revenues or costs were allocated.[122] As a result of these failures, we cannot reliably discount the possibility that the Applicants

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[118] *See 2015 Open Internet Order*, 30 FCC Rcd at 5631, para. 81 n.134 ("data suggests that meaningful alternative broadband options may be largely unavailable to many Americans, further limiting the ability to switch providers. Based on the submissions from various commenters, it appears that between 65% and 70% of households have at most two options for high speed Internet access."); *see also 2010 Open Internet Order*, 25 FCC Rcd at 17921, para. 25, 17923, para. 32; *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and the Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, 2016 Broadband Progress Report, GN Docket No. 15-191, FCC 16-6, para. 86, Table 6 (*2016 Broadband Progress Report*) (showing that for fixed 25 Mbps/3 Mbps service, approximately 10 percent of Americans have no providers and approximately 51 percent of Americans have only one provider).

[119] *See 2015 Open Internet Order*, 30 FCC Rcd at 5631-62, para. 81 ("[t]he broadband provider's position as gatekeeper is strengthened by the high switching costs consumers face when seeking a new service. . . . These costs may limit consumers' willingness and ability to switch carriers, if such a choice is indeed available."); *see also 2010 Open Internet Order*, 25 FCC Rcd at 17924-25, para. 34.

[120] *See infra* para. 111. In addition, as discussed in greater detail in Section V.F, the assumptions about switching upon which the analysis rests do not account for ways, beyond impeding delivery, by which New Charter could make the OVD service itself less appealing to consumers across the board, regardless of their broadband provider. For instance, New Charter could raise the costs and/or reduce the quality of an OVD service through restrictive contractual provisions in its agreements with third-party content providers that would limit the ability of OVDs to obtain the content they may need to compete more effectively. As a result, the ability to switch broadband providers would not provide an effective remedy because the OVD service would now be less appealing to consumers, regardless of which provider's network consumers used to access it.

[121] *See, e.g.,* Scott Morton Decl. at paras. 39 et seq.

[122] *See* Armen A. Alchian and William R. Allen, University Economics 240-41 (2d ed. 1967); George J. Stigler, The Theory of Price 165 (1966).

exaggerated their estimates of broadband gross margins while underestimating their MVPD gross margins.[123]

45. Moreover, the Applicants improperly argue that a lower marginal cost for broadband as compared with the marginal cost of MVPD video necessarily implies that the gross profit margin for broadband is greater than the gross margin for MVPD service.[124] The Applicants do not discuss consumer demand—how consumer willingness to pay for these two services affects their gross margins. Regardless of cost, where a company has some market power, greater demand would lead to higher prices and higher profits. Absent inclusion of consumer demand in the analysis, the Applicants' estimates of gross profit margins may be faulty.

46. Finally, we disagree that New Charter's lack of a direct ownership interest in national programming makes it less likely that the combined entity would harm OVDs. In the *Comcast-NBCU Order*, the Commission found that Comcast would use its control over video and broadband networks, as well as its control over programming, to protect its MVPD business.[125]

47. Because of New Charter's increased MVPD and broadband footprint, and its increased number of homes passed, it will capture a greater share of the benefits that would accrue to MVPDs should New Charter take actions that reduce the competitive viability of OVDs. For the reasons stated above, we find that New Charter is likely to have a greater incentive to take such actions following the transaction.

B. Use of Residential BIAS Retail Terms to Harm Video Competition

48. In this section, we conclude that New Charter could use its increased size to harm consumers' choices in the market for video services by unilaterally discriminating against potential video competitors (such as OVDs) through the use of anticompetitive retail terms for residential BIAS, upon which OVDs rely to reach current and potential customers. BIAS providers such as New Charter can hinder third-party online video competition through practices such as data caps, usage-based pricing (UBP), and discriminatory stand-alone residential BIAS pricing. Based on our analysis of the record in this proceeding, we find that while, to date, the Applicants have not shown a proclivity to use discriminatory retail terms for residential BIAS to harm OVDs, the increased size resulting from the combined company makes it more likely that New Charter would use data caps and UBP in the future to disadvantage its competitors. To remedy this potential harm, we are conditioning our approval of the transaction on extending the Applicants' commitment to refrain from imposing data caps and UBP for seven years. We conclude, however, that the transaction is unlikely to increase the risk that New Charter will price its standalone BIAS offerings to harm OVDs. Moreover, we find that the benefits guaranteed by the conditions we adopt in this Order will outweigh any potential harms if New Charter does indeed change its approach to pricing standalone BIAS.

49. We begin by defining the relevant markets. We then discuss how, as a general matter, the transaction will increase New Charter's incentives to increase consumer prices, followed by a more specific examination of the transaction's potential effects on New Charter's behavior with respect to data caps, UBP, and standalone BIAS pricing.

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[123] *See* Scott Morton Decl. at para. 43, Table 4.

[124] *See id.* at para. 43 ("direct expenses . . . are higher for video services. Consequently, the highest gross margins are not made on video services, but on broadband services.").

[125] *See Comcast-NBCU Order*, 26 FCC Rcd at 4252-59, 4266-76, paras. 34-48, 70-73, 78-90, 93-95; *see also infra* Section V.D.2 (discussing whether OVDs are included in the MVPD market); Section V.B.2.a (discussing using caps as a way to protect their MVPD business).

1. Relevant Markets

50. In this section, we discuss whether New Charter would have the ability to impose terms on its sale of residential BIAS such that it would be able to harm edge providers generally and OVDs specifically. If New Charter's subscribers could easily use alternative means to access edge providers and OVDs, then competition from other BIAS providers would constrain New Charter from taking actions that could harm those providers. We find, however, to the contrary. As discussed below, for the purpose of this evaluation, we conclude that the relevant product market is wired cable and fiber BIAS. We find that, as a general matter, consumers do not view wireless, satellite, or legacy DSL BIAS as close substitutes for cable or fiber BIAS offerings. We further find that in any given location, customers have few BIAS choices and that high entry barriers make it unlikely that new substitutes will emerge in the near future. We therefore conclude that New Charter will have the ability to act on its incentives to use anticompetitive terms in connection with the company's residential retail BIAS products.

51. *Background*. BIAS is a mass market wireline or wireless retail service that provides the capability to transmit and receive data across substantially all Internet endpoints.[126] The Applicants provide BIAS over hybrid fiber-coaxial networks.[127] The Applicants' current BIAS offerings have a range of download and upload speeds: Charter's lowest offered download speed is 60 Mbps,[128] Time Warner Cable offers download speeds as low as 2 Mbps and as high as 100 Mbps,[129] and Bright House offers download speeds ranging from 2 Mbps to 300 Mbps.[130] After the transaction, New Charter intends to provide wired BIAS across its new service area at a minimum of 60 Mbps.[131] Charter claims that download speeds of 60 Mbps would allow multiple users in a household to watch high-definition online video and make other uses of the Internet at the same time (e.g., gaming, web surfing, reading email).[132]

52. The Applicants claim that New Charter would face "robust and rapidly increasing competition throughout its service territory," including from satellite and mobile wireless,[133] and argue that the relevant product market should include all BIAS, whether provided by wired or wireless means.[134] Certain commenters and petitioners argue that neither wireless BIAS nor BIAS provided via DSL is a

[126] 47 CFR § 8.11(a); *see also 2015 Open Internet Order*, 30 FCC Rcd at 5610, para. 25. The definition of BIAS excludes "enterprise services, virtual private network services, hosting, or data storage services." *Id.* at 5610, para. 26. The FCC made clear in the *2015 Open Internet Order* that BIAS encompasses access to edge providers. *Id.* at 5610, para. 27. As we discuss further below, we find that wireless BIAS is not within the scope of the product market definition for our examination of potential harms associated with the transaction relating to retail terms for residential BIAS. *See infra* para. 56.

[127] Application at 7, 10, 12.

[128] Charter, *Combine TV, Internet & Phone for the Best Deal*, https://www.charter.com/browse/content/packages (last visited Jan. 29, 2016).

[129] Time Warner Cable, *TV, Internet & Phone Plans*, http://www.timewarnercable.com/en/plans-packages/cable-internet.html (last visited Jan. 29, 2016).

[130] Bright House, *Offers*, http://brighthouse.com/shop/internet.html (last visited Jan. 29, 2016).

[131] Application at 1.

[132] *Id.*

[133] Application at 60-61; Opposition at 32; *see also* Comcast Response to Oct. 9, 2015, Information and Data Request at 6, transmitted by letter from Michael D. Hurwitz, Counsel for Comcast, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Oct. 23, 2015) (Comcast Response to Information Request).

[134] *See* Opposition at 32.

substitute for wired BIAS and that the relevant product market should be limited to high-speed wired BIAS.[135]

53. *Discussion.* While the Commission's definition of BIAS for regulatory purposes includes services provided by both wired and wireless means, the market definition inquiry when analyzing a proposed transaction is different. For our purposes here, a relevant market includes "all products 'that consumers consider reasonably interchangeable for the same purposes.'"[136] When one product is considered by consumers to be a reasonable substitute for another product, it is included in the relevant market.[137] In making this determination, we look at "customers' ability and willingness to substitute away from one product to another in response" to changes in price and quality.[138] Here, both the empirical and economic evidence demonstrate that consumers find that legacy DSL, satellite, and mobile wireless are generally not close substitutes for the Applicants' cable BIAS offerings, while fiber to the premises (FTTP) and, perhaps to a lesser extent, fiber to the node (FTTN) BIAS are reasonable substitutes.

54. *DSL.* We find that consumers are abandoning legacy DSL for faster, more advanced technologies. For instance, according to some calculations, over 10 million legacy DSL customers dropped their DSL service from 2009 to 2013.[139] Given the limitations of the copper technology underlying it, typical legacy DSL speeds average from 1.5 Mbps to 6 Mbps depending on how close the

[135] *See* WGAW Petition at 20 (stating that "wireless data plans are not viable alternatives for online video consumption because of high costs and Internet data thresholds"); MFRConsulting Reply at 19 (stating that "the use by consumers of mobile networks for real-time access to video services such as Netflix is economically prohibitive as well [as] experientially undesirable"); Free Press Reply at 11-12.

[136] *Applications of Nextel Communication, Inc. and Sprint Corp. for Consent to Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 20 FCC Rcd 13967, 13984, para. 39 (2005) (*Sprint-Nextel Order*); *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 395 (1956); *see also United States v. Microsoft*, 253 F.3d 34, 52 (D.C. Cir. 2001), *cert. denied*, 534 U.S. 952 (2001) (discussing non-interchangeability among products); *Wireless Telephone Services Antitrust Litigation*, No. 02 Civ. 2637(DLC), 2003 WL 21912603 at 9 (S.D.N.Y. Aug. 12, 2003) (relevant product market "consists of products that have reasonable interchangeability for the purposes for which they are produced – price, use and qualities considered").

[137] The Commission has considered whether one product is a reasonable substitute for another product. *See Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corp., et al.*, Memorandum Opinion and Order, 19 FCC Rcd 21522, 21557 para. 71 (2004); *Applications of Western Wireless Corp. and ALLTEL Corp.*, Memorandum Opinion and Order, 20 FCC Rcd 13053, 13077-79, paras. 60-64 (2005).

[138] *2010 DOJ/FTC Horizontal Merger Guidelines* § 4 at 7.

[139] *See* Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, Internet Access Services: Status as of June 30, 2013, at 23, 25 (June 2014), https://apps.fcc.gov/edocs_public/attachmatch/DOC-327829A1.pdf (showing that total DSL connections with at least three Mbps downstream increased by 10.4 million while total DSL connections remained nearly constant between June 2009 and June 2013, indicating a decline of over 10 million legacy DSL subscriptions); *see also* AT&T Inc., Annual Report for the Year Ended December 31, 2014, at 17, http://www.att.com/Investor/ATT_Annual/2014/downloads/att_ar2014_annualreport.pdf; AT&T Inc., Annual Report for the Year Ended December 31, 2013, at 19 http://www.att.com/Investor/ATT_Annual/2013/downloads/ar2013_annual_report.pdf (showing that AT&T DSL subscriptions decreased from 11.2 million in December 2011 to 3.8 million as of December 2014, while "U-Verse high speed Internet" subscribers increased from 5.2 million to 12.2 million over the same period); Jon Brodkin, *Comcast, Time Warner Cable Get 71% of New Internet Subscribers*, Ars Technica (Nov. 23, 2015), http://arstechnica.com/business/2015/11/comcast-time-warner-cable-get-71-of-new-internet-subscribers/ (reporting AT&T quarterly loss of 129,000 subscribers and Verizon gain quarterly gain of 2,000 in contrast to Comcast and Time Warner Cable, which added 552,000 new subscribers); Steve Donohue, *Comcast Dominates 2013 Broadband Subscriber Growth Rankings*, Fierce Cable (Mar. 17, 2014), http://www.fiercecable.com/node/67516/ (reporting that AT&T and Verizon "had a net loss of 3.05 million DSL customers").

subscriber is to the telephone company's central office.[140] In the *2015 Broadband Progress Report*, we determined that 4 Mbps was insufficient to satisfy most households' BIAS needs, particularly when accounting for the bandwidth intensive demands of video services, which is the concern of this section.[141] Moreover, the Commission has previously found that viewing HD video without degradation requires 5 Mbps downstream.[142] While the Applicants submit that 5 Mbps is not necessarily required, citing Hulu's recommendation of 3 Mbps and Amazon's recommendation of 3.5 Mbps for HD video,[143] other providers, such as Apple, recommend an even higher speed.[144] Given legacy DSL speeds, even those subscribers with the fastest connections may have difficulty viewing HD video without degradation. Further, those DSL customers who are able to view HD video are likely devoting the entirety of their capacity to that video, and unlike the vast majority of the Applicants' cable BIAS subscribers, would likely be unable to use other devices simultaneously.[145] Finally, public statements by DSL providers and submissions in this docket demonstrate that they find it difficult to compete with cable and fiber BIAS,[146] and the Applicants'

[140] *See* Public Knowledge Reply, MB Docket No. 14-57, Attach., The State of the Art and Evolution of Cable Television and Broadband Technology at 1, 9-10 (filed Dec. 22, 2014). According to the Commission's *2015 Measuring Broadband America Report*, a variety of DSL providers could not meet advertised speeds during peak hours. *See* Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, FCC, 2015 Measuring Broadband America Fixed Broadband Report: A Report on Consumer Fixed Broadband Performance in the U.S. at 15 (2015), http://data.fcc.gov/download/measuring-broadband-america/2015/2015-Fixed-Measuring-Broadband-America-Report.pdf (*2015 Measuring Broadband America Report*) (showing that during peak periods, DSL-based services from AT&T, CenturyLink, Frontier, and Verizon delivered download speeds between 80 and 98 percent of advertised speeds). In addition, the *2015 Measuring Broadband America* reported that some DSL ISPs are not delivering advertised speeds as these ISPs "continue to advertise 'up-to' speeds that on average exceed the actual speeds experienced by their subscribers." *Id.* at 13.

[141] *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Report and Notice of Inquiry, 30 FCC Rcd 1375, 1393, para. 26 (2015) (*2015 Broadband Progress Report*).

[142] *See Connect America Fund et al.*, Report and Order, 29 FCC Rcd 15644, 15649-50, para. 17 (2014) (*Connect America Fund Report*) (finding that HD video streaming requires 5 Mbps downstream); *see also* Netflix, *Internet Connection Speed Recommendations*, https://help.netflix.com/en/node/13844 (last visited Jan. 11, 2016) (recommending a speed of "at least" 5 Mbps to receive HD content).

[143] Opposition at 34.

[144] *See* Apple, *Get Help Playing or Streaming Content on Your Apple TV*, http://support.apple.com/kb/TS3623 (last visited Jan. 14, 2016) (recommending 8 Mbps "for 1080p high-definition movies and TV shows" and 6 Mbps for "720p content").

[145] *Cf. 2016 Broadband Progress Report*, FCC 16-6, para. 54 (finding that a download speed of 25 Mbps "remains sufficient to ensure that a household can access a range of bandwidth intensive services, including HD video streaming, simultaneously over multiple devices").

[146] *See, e.g.*, Fran Shammo, Executive Vice-President and Chief Financial Officer, Verizon Communications Inc., Comments at UBS Global Media and Communications Conference (Dec. 9, 2014), http://www.verizon.com/about/investors/ubs-42nd-annual-global-media-and-communications-conference; AT&T Inc. Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Maureen R. Jeffreys, Counsel for AT&T Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exh. 1.6, at 13 (filed Oct. 30, 2015) (AT&T Inc. Response to Information Request); CenturyLink Inc. Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Tiffany West Smink, Associate General Counsel, CenturyLink Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 6 (filed Oct. 30, 2015) (CenturyLink Inc. Response to Information Request).

internal documents confirm this view.[147] We therefore find that legacy, non-upgraded DSL is not a sufficient substitute from a consumer perspective for the Applicants' BIAS offering.

55. *Fixed Satellite BIAS*. In the *2016 Broadband Progress Report*, we "observe[d] significant differences involving technical capabilities and adoption patterns between fixed terrestrial and fixed satellite services" and found that "[m]ost satellite broadband service providers face technological challenges separate and apart from those faced by fixed terrestrial providers."[148] Satellite BIAS typically has monthly usage allowances,[149] and, in contrast to cable BIAS providers, recently submitted data indicates that satellite BIAS providers are generally not offering speeds of even 25/3 Mbps, with download speeds generally between 5 and 15 Mbps.[150] Satellite BIAS also suffers from latency issues, making it an impractical service for uses such as real-time gaming.[151] Taken together, these reasons currently make satellite BIAS an impractical option for many households and likely explain why, despite the recent growth of satellite BIAS, SNL Kagan predicts that by 2018, satellite BIAS providers would have only a 1.8 percent share, contrasted with cable BIAS providers' projected nationwide share of 58.2 percent of all BIAS subscribers.[152]

56. *Mobile Wireless*. As we recently concluded in the *2016 Broadband Progress Report*, currently "fixed and mobile broadband services are not adequate substitutes for one another . . . . Rather

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[148] *2016 Broadband Progress Report*, FCC 16-6, para. 47.

[149] *Id.* at para. 47 n.162; *2015 Broadband Progress Report*, 30 FCC Rcd at 1446, para. 123; *see also* SNL Kagan, Media Trends: Actionable Metrics, Benchmarks & Projections for Major Media Sectors, 2014 Edition, at 145-46 (Dec. 2014) (stating that "[t]he pricing compares to some of the higher-tier offerings of cable and telco HSD plans, yet the satellite download speeds are more comparable to the lower-end packages of advanced-technology wireline competitors").

[150] *See 2016 Broadband Progress Report*, FCC 16-16, paras. 47-48; *id.*, Appx. F at 69, para. 1 (showing no satellite service offering speeds of 25/3 Mbps); *see also, e.g.*, HughesNet, *Plans and Pricing*, http://www hughesnet.com/plans-and-pricing/internet-service (last visited Jan. 14, 2016) (showing download speeds for HughesNet satellite service from 5-15 Mbps).

[151] *2015 Measuring Broadband America Report* at 17; *see also* DISH, *dishNET Satellite – Need to Know & FAQs*, https://www.mydish.com/upgrades/products/satellite-internet (last visited Jan. 27, 2016) ("Due to the latency that occurs as the signal travels to and from the satellite, real-time gaming of any kind is not recommended").

[152] SNL Kagan, Media Trends: Actionable Metrics, Benchmarks & Projections for Major Media Sectors, 2014 Edition, at 142 (Dec. 2014) (Projected U.S. Residential HSD Market Share, 2008-2018). **[BEGIN HIGHLY CONF. INFO.]**
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. . . in today's society, fixed and mobile broadband are both critically important services that provide different and complementary abilities, and are tailored to serve different consumer needs."[153] Mobile BIAS differs from fixed terrestrial BIAS in several fundamental ways, including speed, latency, price and usage allowances, and consistent quality of service.[154] As we have found, many households subscribe to both fixed and mobile services because they use the services in fundamentally different ways and, as such, view fixed and mobile services as distinct product offerings.[155] Data caps, prevalent on most mobile wireless plans, force consumers to limit their data consumption or face increased costs.[156] Indeed, the Applicants' documents confirm that they do not currently view wireless as a comparable competitor to their BIAS offerings.[157] And while the deployment of new technologies, such as HSPA+, and LTE, capable of meeting 10 Mbps is increasingly widespread,[158] the ability of these services to offer an adequate functional substitute for fixed terrestrial BIAS is limited.[159] Currently, it would be cost prohibitive for most consumers to switch from viewing over-the-top (OTT) content over a wireline BIAS

[153] *2016 Broadband Progress Report*, FCC 16-6, para. 17.

[154] We also find that fixed wireless service currently does not provide an effective competitive constraint for the Applicants' cable BIAS. The service currently faces limitations on data usage, speeds, higher prices and availability. Fixed wireless connections are not ubiquitous and only account for less than one percent of all residential fixed Internet connections. *See* Industry Analysis and Technology Division, Wireline Competition Bureau, Internet Access Services: Status as of December 31, 2013, at 24, Table 6 (Oct. 2014), http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db1016/DOC-329973A1.pdf; *c.f. 2016 Broadband Progress Report* at 12-13, para. 26 (noting that satellite and fixed wireless combined represent under three percent of residential fixed wireless subscribers). In addition, it would appear that fixed wireless service is generally being rolled out only in areas that are largely unserved by cable and fiber BIAS competitors and thus would not serve as an alternative to the Applicants' BIAS offerings. *See generally* Matt Larsen, Wireless Internet Service Providers Association (WISPA), America's Broadband Heroes: Fixed Wireless Broadband Providers (2011), http://www.wirelesscowboys.com/wp-content/uploads/2011/10/americas-broadband-heroes-fixed-wireless-2011.pdf; *see also* Verizon, *LTE Internet (Installed) FAQs*, http://www.verizonwireless.com/support/lte-internet-installed-faqs/ (last visited Feb. 5, 2016) (explaining that LTE Internet (Installed) is "a great solution for customers with 4G LTE coverage at home who don't have other high-speed Internet options").

[155] *2016 Broadband Progress Report*, FCC 16-6, paras. 17, 35-42.

[156] *See* U.S. Government Accountability Office, Broadband Internet: FCC Should Track the Application of Fixed Internet Usage-Based Pricing and Help Improve Consumer Education at 17-18 (Nov. 2014), http://gao.gov/assets/670/667164.pdf (explaining that consumers subject to data caps change behavior to limit data usage).

[157] *See* CHR2-DOJ-00000022862 at 8, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; CHR-DOJ-0000369592 at 7, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; CHR-DOJ-0000808382 at 27, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; TWC-DOJ-00479311 at 20, 32, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; TWC-DOJ-03925493 at 23-25, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO]**.

[158] *See 2016 Broadband Progress Report*, FCC 16-6, paras. 58 & n.192, 111.

[159] *See id.* at para. 24.

provider to a mobile provider with the same level of service (i.e., 1080p+ resolution).[160] For example, it would cost an average Netflix subscriber using the Applicants' cable BIAS many hundreds of dollars each month to view that same Netflix programming over a wireless provider.[161]

57. *The Applicants' Competitive Behavior.* Evidence in the record confirms that fiber, FTTP, and FTTN are reasonable substitutes for cable BIAS, while other technologies are not. The evidence shows that the Applicants alter their pricing and product offerings materially in response to FTTP and FTTN offerings from companies like Google (Google Fiber), Verizon (FiOS), and AT&T (U-Verse) but not in response to other technologies. As described in the attached Economic Appendix, the Applicants' predicted pricing behavior is most affected when the companies are in competition with providers that are able to match or exceed the download speeds of the Applicants' BIAS product offerings.[162] The Applicants' predicted pricing decreases the most when faced with competition from Verizon FiOS and from U-Verse, while legacy DSL competition has a minimal effect on the Applicants' predicted pricing.[163]

58. The economic analysis is borne out by the Applicants' documents[164] and past examples of their behavior.[165] In addition, analysis by the Commission's economists indicates that while the

[160] Although T-Mobile has recently introduced Binge On featuring video streaming that does not count against a subscriber's data allowance, T-Mobile's program offers video streaming at 480p+ resolution. *See* T-Mobile, *Introducing Binge On*, http://www.t-mobile.com/offer/binge-on-streaming-video.html (last visited Mar. 10, 2016).

[161] Netflix provided the average monthly amount of data its subscribers used on the Applicants' cable BIAS for the first eight months of 2014. *See* NFX-FCC-00000067, **[BEGIN HIGHLY CONF. INFO.]**

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[162] *See* Appendix C, Section II.A.3., paras. 11-19, Tables 4-5; *see also* Parks Associates, *Parks Associates Research Shows Faster Broadband Speeds Drive More Switching than do Lower Fees* (Nov. 30, 2015), http://www.parksassociates.com/blog/article/pr-11302015-needforspeed (indicating that the most common reason for broadband consumers to switch is to "get a faster broadband speed"). FTTP competitors are the only entities that can offer faster speeds than those offered by the Applicants.

[163] *See* Appendix C, Section II.A.3., paras. 11-19, Tables 4-5.

[164] *See, e.g.*, CHR2-DOJ-00000022862 at 13, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]; TWC-DOJ-01031389 at 3, **[BEGIN HIGHLY CONF. INFO.]**

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[165] *See City of Wilson, North Carolina Petition for Preemption of North Carolina General Statute Sections 160A-340 et seq. et al.*, Memorandum Opinion and Order, 30 FCC Rcd 2408, 2434, paras. 52-54 (2015) (*Municipal Broadband Preemption Order*) (finding Time Warner Cable's rates lower in Wilson than in other areas of North Carolina and that Time Warner Cable improved its BIAS speed offerings after Wilson entered the market). Similarly, Time Warner Cable prioritized Austin, Texas as a TWC Maxx market in response to Google's planned deployment of 1 Gbps service. *See* Press Release, Time Warner Cable, *Time Warner Cable Bringing Incredibly*

(continued….)

Applicants' voluntary churn is generally very low, it is higher in areas where the companies face competition from FTTP and FTTN, which further suggests that consumers see fiber BIAS options, but not other technologies, as close substitutes.[166]

59. *Relevant speed.* Although we find that legacy DSL provides speeds that are too slow to be an effective substitute for cable and fiber BIAS, for the purposes of this proceeding we otherwise do not find it necessary to determine a minimum downstream speed to define the relevant product market for wired BIAS. The Applicants contend that "the online video marketplace is not defined by any particular speed of broadband service" and that consumers may consider different speeds as substitutes "depending on their use and value preferences."[167] On the other hand, several commenters contend that the Commission should focus on BIAS subscribers receiving download speeds of 25 Mbps or faster.[168] We observe that currently there is no single speed that perfectly captures the wired BIAS market. We agree with commenters who argue that the BIAS marketplace is rapidly evolving as consumers increasingly use multiple devices at the same time and bandwidth intensive applications.[169]

60. Significantly, regardless of what speed we select for evaluation, the Applicants' local market shares for BIAS will not change as a result of the transaction. Because the Applicants largely do not compete against each other to serve households at the local level,[170] the transaction does not affect their market shares for local BIAS service. We observe that the state of local competition for fixed BIAS is already poor for most customers at all but the slowest download speeds,[171] and the transaction will not alter that competitive landscape.[172] Consequently, the speed tier is immaterial for purposes of our

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Fast Internet Plans Across its Entire Austin Service Area (Feb. 20, 2014), http://www.timewarnercable.com/en/about-us/press/twc-bringing-incredibly-fast-internet-to-austin.html.

[166] *See* Appendix C, Section II.C.1.c, Tables 20-22.

[167] Application at 44.

[168] *See* WGAW Petition at 19; Free Press Petition at 15 ("[t]he 25 Mbps downstream/3 Mbps upstream threshold is instructive, because it helps indicate broadband providers' level of control over conduits robust enough to transmit and receive high-quality content"); Public Knowledge Reply at 3. In the 2015 and 2016 Broadband Progress Reports, the Commission determined that the speed benchmark to measure advanced telecommunications capability should be 25 Mbps downstream/3 Mbps upstream. *2016 Broadband Progress Report*, FCC 16-6, para. 51; *2015 Broadband Progress Report*, 30 FCC Rcd at 1393, para. 26.

[169] *See* DISH Petition at 46.

[170] Application at 5. *See also id.* at 42-43; Letter from John L Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed July 6, 2015) (stating that at least two of the Applicants provide service in only 0.046 percent of the same census blocks served by the companies, which corresponds to a mere 0.1 percent overlap of residential broadband customers). Dr. Fiona Scott Morton concludes that "there can be no change in the post-merger firm's incentives to unilaterally increase prices to subscribers" because of the *de minimis* geographic overlap among the Applicants. Application at 42 (quoting Scott Morton Decl. at para. 5).

[171] Our data show that only 38 percent of Americans have more than one choice of providers for fixed advanced telecommunications capability (i.e., service of at least 25 Mbps downstream/3 Mbps upstream); 13 percent of Americans living in rural areas having more than one choice of such providers and 44 percent of Americans living in urban areas have more than one alternative at those speeds. *2016 Broadband Progress Report*, FCC 16-6, para. 6 & Table 6. Conversely, at speeds under 10 Mbps downstream, 14% of American households have access to three or more ISPs providing such speed, 69% have access to two such providers, 12% have access to only one such provider, while 5% have access to no such providers. *See Media Bureau Makes Available Broadband Subscriber Data Relevant To Review Of Proposed Charter-Time Warner Cable-Advance/Newhouse Transactions*, Public Notice, 30 FCC Rcd 12753, Exh. 3b. (2015) (*477 Data PN*).

[172] Based on broadband reporting data from FCC Form 477 as of December 2014, in the post-transaction New Charter footprint there will be limited choices for wired ISPs for households at broadband speed tiers of 10 Mbps
(continued….)

competitive review of the local BIAS market, so we will refrain from selecting a particular speed tier for our analysis.[173]

61. *Geographic Market.* For purposes of evaluating the Applicants' potential use of anticompetitive residential BIAS terms, we find it appropriate to examine the relevant geographic market.[174] As the Commission has held previously with regard to wired services, and as we discuss below with regard to MVPD services, we find that the geographic market is the particular customer's location, because it would be prohibitively expensive for a customer to move in order to avoid a "small but significant and nontransitory increase in the price."[175] For reasons of administrative convenience, the Commission traditionally has aggregated customers facing similar competitive choices[176] and we do so again here. Because we agree with the Applicants that competition for BIAS end users takes place at a local level,[177] we find that the relevant geographic market for the purposes of analyzing residential retail BIAS practices is local.

62. *Market Participants.* For the reasons just discussed, to evaluate the potential anticompetitive use of retail terms for residential BIAS, we find that BIAS providers offering wireline cable and fiber BIAS are the relevant market participants. These include telephone company BIAS providers such as AT&T, CenturyLink, Frontier Communications, and Verizon. Other relevant market participants include commercial fiber overbuilders (including, but not limited to, Google), municipal and other public fiber overbuilders such as the City of Wilson, North Carolina and the Electric Power Board

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downstream and 25 Mbps downstream. *See 477 Data PN*, 30 FCC Rcd 12749, 12752, Exh. 3a. Only 11% of homes in the New Charter footprint will have access to three or more wired ISPs providing 10 Mbps downstream, while 65% of homes will have access to two wired ISPs providing that speed, and 24% will have access to just one such provider. *Id.* At 25 Mbps, only 3% of homes in the New Charter footprint will have access to three or more wired ISPs that provide such speed, 30% of homes will have access to two such providers, while 66% of homes will have access to just one wired ISP providing 25 Mbps downstream speeds. *Id.*

[173] Moreover, when looking at the number of cable and fiber BIAS subscribers nationwide, there is not a substantial difference in New Charter's share based on the speed of the offering. *See infra* para. 110 & note 358.

[174] The Applicants submit this is the only relevant market. *See* Application at 44 (stating that "competition for end-users—which determines whether those users can switch in the face of anticompetitive practices—takes place at a local level"); *see also* Opposition at 32 (arguing that the consumer BIAS market is "local because each consumer selects from options available at his or her location"). The local residential retail BIAS market stands in contrast to the national market for interconnection services. As we discuss below there is a national market for the interconnection services purchased by businesses in order to gain access to their customers. *See infra* paras. 106-107. The business models of OVDs typically depend on the ability to reach customers on a nationwide basis. *Id.* As we note above, when an OVD is contracting for transit, CDN services, or direct interconnection with a BIAS provider, it does so on a national basis in order to reach as many customers as possible. *Id.*

[175] *See, e.g., Applications filed by Qwest Communications International Inc. and CenturyTel, Inc. d/b/a CenturyLink for Consent to Transfer Control*, Memorandum Opinion and Order, 26 FCC Rcd 4194, 4202-03, para. 16 (2011); *SBC Communications, Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18290, 18307, para. 28 (2005) (citing then current version of the DOJ/FTC Horizontal Merger Guidelines). *Cf. Comcast-NBCU Order*, 26 FCC Rcd at 4256, para, 42 (discussing MVPD service); *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20610, para. 119 (same).

[176] Our finding that the relevant geographic market for the sale of residential BIAS is consistent with the principles discussed in the *2010 DOJ/FTC Horizontal Merger Guidelines* § 4.2.2 at 14-15 (discussing when it is appropriate to define geographic markets based on customer locations).

[177] *See* Application at 44.

of Chattanooga, Tennessee,[178] cable company BIAS providers such as Comcast, Cox Communications, and Cablevision, and cable company overbuilders such as RCN and WOW! (Wide Open West).

63. *Entry Barriers.* We find that it is unlikely that other competitors will emerge in a timely manner. The Commission's annual *Broadband Progress Reports* have repeatedly found that there are "numerous barriers to infrastructure investment" to provide wired cable or fiber BIAS, particularly, "the high cost of deploying and operating a broadband network."[179] We agree with the Applicants that the entrance of traditional telecommunications companies, smaller local overbuilders, and non-traditional providers such as Google have helped to increase competition in the BIAS market.[180] But the presence of such competition is limited geographically and the Applicants have not sufficiently demonstrated that there will be timely, likely, or sufficient broadband entry in New Charter's footprint in the near future. For instance, Google has demonstrated a strategy of entering a small number of select communities, and deployment time is measured in years rather than months.[181] CenturyLink has begun to deploy 1 Gbps residential broadband service and has announced plans to roll out additional 1 Gbps service, but only in limited areas.[182] Verizon has reported that about 70 percent of the premises in its landline territory would have access to all-fiber facilities,[183] but has also publicly stated that it generally has no plans to expand the footprint of its all-fiber broadband service.[184] Moreover, Verizon DSL customers outside the FiOS

[178] *See generally City of Wilson, North Carolina Petition for Preemption of North Carolina General Statute Sections 160A-340, et. seq., the Electric Power Board of Chattanooga, Tennessee Petition for Preemption of a Portion of Tennessee Code Annotated Section 7-52-601*, Memorandum Opinion and Order, 30 FCC Rcd 2408 (2015).

[179] *2016 Broadband Progress Report*, FCC 16-6, para. 125; *2015 Broadband Progress Report*, 30 FCC Rcd at 1455, para. 141; *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Report, 27 FCC Rcd 10342, 10403-10, paras. 139-54 (2012) (*2012 Broadband Progress Report*); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Report and Order on Reconsideration, 26 FCC Rcd 8008, 8040, para. 65 (2011) (*2011 Broadband Progress Report*); *see also* Letter from Markham C. Erickson, Counsel for INCOMPAS, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attach. at 38-40, paras. 76-80 (filed Jan. 15, 2016) (Evans Decl.).

[180] *See 2015 Broadband Progress Report*, 30 FCC Rcd at 1383-85, paras. 15-16.

[181] *See* Jeff Baumgartner, *Google Fiber Ended 2014 with 29,867 TV Subs: Report*, Multichannel News (Mar. 12, 2015), http://www multichannel.com/news/technology/google-fiber-ended-2014-29867-tv-subs-report/388806.

[182] *See* CenturyLink, *CenturyLink is Rolling Out Speeds Up to 1 Gig Across the Country*, Feb. 10, 2016, https://www.centurylink.com/fiber/plans-and-pricing/; *see also Technology Transitions et al*., Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 30 FCC Rcd 9372, 9374, para. 2 (2015) (*Technology Transitions Order*).

[183] *Technology Transitions Order*, 30 FCC Rcd at 9373-74, para. 2 (citing Comments of Verizon, GN Docket No. 13-5, RM-11358, WC Docket No. 05-25, RM-10593, at 9 (filed Feb. 5, 2015)).

[184] Karl Bode, *Verizon: 30% or More of Our Users Will Never Get FiOS*, DSLReports (May 7, 2014), http://dslreports.com/news/128862 (quoting Verizon CFO Fran Shammo that 30% of the legacy Verizon footprint will not be covered by FiOS). We note that on April 12, 2016, the City of Boston announced a partnership with Verizon whereby Verizon will invest $300 million over six years in deploying FiOS to the city. *See* News Release, Verizon, Mayor Walsh announces partnership with Verizon to transform city's technology infrastructure (April 12, 2016), http://www.verizon.com/about/news/mayor-walsh-announces-partnership-verizon-transform-citys-technology-infrastructure. However, there is no evidence that this project is an indicator of additional FiOS deployment. *See* Jon Brodkin, *Verizon is Actually Expanding FiOS Again, With New Fiber in Boston*, arstechnica (April 12, 2016), http://arstechnica.com/business/2016/04/verizon-is-actually-expanding-fios-again-with-new-fiber-in-boston (noting that Verizon did not commit to further FiOS expansion).

footprint appear unlikely to receive upgraded DSL service.[185] We note that while AT&T is expected to deploy FTTP service to 12.5 million customer locations by 2019, this buildout was compelled by the Commission as part of the regulatory approval of AT&T's merger with DIRECTV,[186] and thus we cannot expect that any further build-out will occur. With respect to other BIAS providers, these providers' deployments are limited and they face significant barriers in expanding deployment. For instance, the record indicates that a significant impediment to new BIAS provider entrants is the high cost of obtaining linear video programming, which most subscribers prefer to bundle with BIAS.[187]

64. *Switching.* New Charter's ability to adopt terms on residential BIAS that could harm OVDs or other edge providers is enhanced by the low risk of subscribers switching to other providers if it did so. The Applicants claim that because New Charter does not plan to impose early termination fees or "long-term lock-in provisions seen elsewhere in the industry," it would be "easy" for New Charter BIAS customers to switch providers if they are dissatisfied with the company's treatment of edge content.[188]

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[185] *See* Fran Shammo, Executive Vice-President and Chief Financial Officer, Verizon Communications Inc., Comments at UBS Global Media and Communications Conference (Dec. 9, 2014), http://www.verizon.com/about/investors/ubs-42nd-annual-global-media-and-communications-conference ("Outside of FiOS where I only have copper to compete against cable, I am not going to win that battle: We can't compete on speed and we made a strategic decision not to invest in that copper plant so now it's trying to maintain that and keep customers as long as we can."); *see also* Verizon Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Meredith Singer, Counsel for Verizon, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Nov. 6, 2015) (Verizon Response to Information Request) (in IDR response to Request 1(b), reporting that Verizon **[BEGIN HIGHLY CONF. INFO.]**

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[186] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9278, para. 394.

[187] *See, e.g.*, Evans Decl. at para. 78 (citing *AT&T-DIRECTV Order*, 30 FCC Rcd at 9155-9157, paras. 57-59) ("[T]o be viable, broadband providers have to enter the MVPD business in addition to the ISP business because most households want to purchase both video programming and Internet access together."); *see also* Petition to Deny of COMPTEL, MB Docket No. 15-149, at 8-10 (filed Oct. 13, 2015) (COMPTEL Petition) ("To be competitive in the residential broadband marketplace, competitive wireless providers must offer broadband and linear video services. . . . [COMPTEL members] offer linear video service at a loss, which necessarily impacts their ability to expand and upgrade their broadband networks."); NTCA—The Rural Broadband Association Reply at 3 (NTCA Reply) (arguing New Charter would have the ability and incentive to withhold video content from competitors, thus increasing consumer prices, reducing competition, and limiting the ability of rural providers to invest in the quality and reach of their broadband networks); *see also* Brian Fung, *Here's the Single Biggest Thing Holding Google Fiber Back*, Washington Post (Oct. 6, 2014), http://wpo.st/es7G1/ (noting that Google's Vice President of Access Service described video as "the single biggest impediment" to Google Fiber's deployment).

[188] Application at 47-48; *see also* Scott Morton Decl. at para. 39. *See also* Scott Morton Reply Decl. at para. 120. Dr. Scott Morton cites a survey by Global Strategy Group (GSG) that was funded by Comcast as part of its advocacy in the now-abandoned Comcast/Time Warner Cable transaction, claiming that 70 percent of BIAS subscribers who also subscribed to Netflix would switch ISPs if their Netflix service was degraded. *See id.* at para. 121. Dr. Scott Morton claims that the survey "implies approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of total broadband subscribers would switch" if Netflix was foreclosed. *Id.* In response to Commission inquiries during the Comcast/Time Warner Cable proceeding, GSG admitted that a confidence interval could not be calculated for the statistics reported by the survey because the sampling method employed was non-random and non-probability based. *See* Letter from Michael D. Hurwitz, Counsel for Comcast, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 14-57, Attach. (Memo from Global Strategy Group to Willkie Farr & Gallagher LLP) at 6 (filed Mar. 23, 2015) (stating that because "the survey was conducted using an on-line opt-in panel rather than a random sampling methodology," a "standard margin of error cannot be calculated for the estimated frequencies reported in the survey, as margin of error calculation depend upon the assumption of random sampling"). Thus, the results of the survey are meaningless as a statistical matter and provide no reasonable basis for inferring the behavior of BIAS customers in the situations about which the survey inquires.

65. Dr. Scott Morton claims that "Charter experiences substantial churn among its broadband subscribers."[189] However, based on the record, we find that BIAS subscribers infrequently switch providers. The churn figures cited by Dr. Scott Morton include customers who disconnected their Charter BIAS offering because they moved, as well as customers that left Charter because of their failure to pay.[190] These departures are not relevant for the purposes of determining the likelihood of subscribers leaving New Charter, because these customers were forced to end their Charter service rather than affirmatively choosing another provider. When these disconnections are eliminated from Charter's churn data, the company's monthly churn rate is nearly non-existent.[191]

66. Switching BIAS providers can be a difficult consumer experience and high switching costs are likely a factor in consumers choosing to retain their current broadband provider. The Commission recently recognized that,

> The broadband provider's position as gatekeeper is strengthened by the high switching costs consumers face when seeking a new service. Among the costs that consumers may experience are: high upfront device installation fees; long-term contracts and early termination fees; the activation fee when changing service providers; and compatibility costs of owned equipment not working with the new service.[192]

67. A lack of alternatives at the local level also likely leads to low churn among BIAS subscribers. The Applicants' combined footprint is illustrative. Sixty-six percent of New Charter customers seeking BIAS with at least a 25 Mbps download speed will have no alternative option at that speed.[193] Even at a slower speed, the competitive landscape is sparse—twenty-four percent of New Charter customers will lack any alternative for BIAS with at least a 10 Mbps download speed.[194] Only eleven percent of New Charter customers would have more than one alternative offering 10 Mbps or faster service. Between this lack of alternatives and high switching costs, New Charter is unlikely to lose many BIAS subscribers if the company were to adopt retail terms on residential BIAS that consumers find incompatible with use of an OVD.

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[189] Scott Morton Decl. at para. 55. Dr. Scott Morton cites an approximate monthly churn rate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. Our examination of Charter's data showed a slightly lower monthly churn rate, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. *See* Appendix C, Table 17.

[190] *See* Scott Morton Decl. at para. 55. The Park Associates research showed that 9 percent of U.S. BIAS households switched over the last year, significantly lower than Charter's reported annual churn rate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. *Compare* Parks Associates, *Parks Associates Research Shows Faster Broadband Speeds Drive More Switching Than Do Lower Fees* (Nov. 30, 2015), http://www.parksassociates.com/blog/article/pr-11302015-needforspeed, *with* Scott Morton Decl. at para. 55.

[191] *See* Appendix C, paras. 81-82, Figures 11-13. The data shows a voluntary churn rate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. *See* Appendix C, para. 82, Figure 11. Time Warner Cable's numbers show a similar decrease. The company reported **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent monthly churn, but only **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of that was actually voluntary. *See id.* & Figure 12. DISH's economist Dr. William Zarakas calculated similar voluntary churn figures. *See* Letter from Stephanie A. Roy, Counsel for DISH Network, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attach., at paras. 13-16 (filed Jan. 20, 2016) (Zarakas Decl.).

[192] *2015 Open Internet Order*, 30 FCC Rcd at 5631, para. 81; *see also* Tom Wheeler, Chairman, FCC, Prepared Remarks of FCC Chairman Tom Wheeler, "The Facts and Future of Broadband Competition," 1776 Headquarters, Washington, D.C. (Sept. 4, 2014), at 4, https://apps fcc.gov/edocs_public/attachmatch/DOC-329161A1.pdf.

[193] *See 477 Data PN*, 30 FCC Rcd 12748, 12752, Exh. 3a; Appendix C, para. 7, Table 1.

[194] *See 477 Data PN*, 30 FCC Rcd at 12752, Exh. 3a; Appendix C, para. 7, Table 1.

2. Unilateral Effects

68. Below we analyze New Charter's changed incentives to engage in unilateral actions that would have anticompetitive effects on the provision of video programming.[195] A merger can diminish competition in a market by eliminating competition between the merging parties, even if the merger does not change the way other companies in the market interact or coordinate.[196] Adverse competitive effects arising in this manner are referred to as "unilateral effects."[197] As Public Knowledge points out, New Charter's changed incentives result, in part, from ownership of a greater share of the cable industry that may enable New Charter to capture a greater share of the benefits that accrue to the industry when New Charter takes actions that reduce the competitive viability of video competitors, such as OVDs.[198] Thus, we analyze the concern that New Charter would internalize more of the external benefits in the event New Charter acts to harm OVDs, a rival of the entire industry. Based on our review of the record, it does not appear that New Charter intends to take any immediate unilateral actions with respect to retail residential BIAS terms to discriminate against video competitors such as OVDs in an effort to detrimentally affect their ability to compete with the video products of cable providers.[199] However, to address New Charter's increased incentive to protect its video profits and to discriminate against OVDs, we conclude that targeted conditions are necessary.[200]

69. *Positions of the Parties.* The Applicants claim that New Charter would not have the incentive to harm video competition through any consumer-facing retail residential BIAS practices.[201] As an initial matter, the Applicants state that BIAS competition at the local and national levels[202] from telephone companies, among others, would sufficiently constrain New Charter's incentive to foreclose video competition.[203] Furthermore, as discussed above, the Applicants claim that New Charter would not

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[195] Our discussion of potential coordinated effects resulting from the transaction can be found *infra* in Section V.G.2.

[196] *2010 DOJ/FTC Horizontal Merger Guidelines* § 2.2.

[197] *Id.*

[198] *See* Public Knowledge et al. Petition at 6 (stating that the incentive to use broadband gatekeeper power to protect video profits is common to all cable companies but that "this merger would likely increase not only Charter's expected returns from anticompetitive activities, but its increased scale would give it more ability to discriminate against online video while increasing the potential public interest harm").

[199] Charter appears to be rolling out friendly practices for certain arguably complementary OVDs that are not considered replacement services for an MVPD subscription in order to improve its BIAS product. For example, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. Scott Morton Reply Decl. at para. 47. As Dr. Scott Morton states, "OVDs benefit New Charter in at least two ways. First, OVDs increase the demand for New Charter's broadband services. Second, OVDs provide differentiated video services that subscribers can use in tandem with New Charter's video services to create a more complete video offering." Scott Morton Reply Decl. at para. 77.

[200] *See infra* Sections V.B.2.a, V.B.2.b, and VI.N.4.

[201] Application at 5, 43.

[202] The Applicants state that New Charter would serve only 23 percent of the national BIAS market for speeds of at least 25 Mbps downstream/3 Mbps upstream—a market share that the Applicants claim is "far short" of the level needed for the ability to foreclose video competition. Application at 46.

[203] *Id.* at 44-45. *But see* Appendix C, para. 7 & Table 1 (finding that at the 25 Mbps downstream speed, "Charter is the sole BIAS provider in 73 percent of its footprint; Time Warner Cable is the sole BIAS provider in 64 percent of its footprint; and Bright House is the sole BIAS provider in 34 percent of its footprint. Post-transaction, New Charter would be the sole provider in 66 percent of its footprint."); Evans Decl. at 12-14 (predicting that the lack of local BIAS competition would result in the transaction harming local competition).

possess the economic incentive to foreclose competitors such as OVDs,[204] since any OVD discrimination would harm New Charter's BIAS business.[205] The Applicants state that New Charter's future success depends much more on its BIAS business than its video business,[206] which New Charter claims would incentivize it to promote OVDs and other edge providers[207] in order to increase BIAS demand and subscribership.[208]

70. Despite the Applicants' claims to the contrary, certain commenters contend that New Charter would possess the increased incentive to unilaterally impose anticompetitive policies.[209] For example, DISH states "that New Charter's control of one-third of the nation's high-speed broadband connections gives them substantial power to sabotage OVDs."[210] The Writers Guild of America, West, Inc. (WGAW) claims that New Charter's "control over high-speed Internet connections and the lack of alternative providers would give New Charter the power to set prices for services and dictate access and distribution terms for edge providers and online video services."[211] AT&T expresses concern that New Charter would have a greater incentive to harm OVDs because, as a result of its increased size, it would

[204] *See supra* Section V.A.

[205] Opposition at 16. Charter's incentives to work with OVDs are borne out by its internal documents, which show the reliance of Charter's BIAS customers on streaming video. *See, e.g.*, CHR2-DOJ-00000246437 at 3, **[BEGIN HIGHLY CONF. INFO.]**

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[206] Application at 5-6; Opposition at 52. Charter notes that the Applicants' BIAS subscribers already outnumber their video subscribers by 2.6 million, a tilt toward BIAS that "is likely to continue into the future." Scott Morton Decl. at para. 40. Further, according to the Applicants, Charter's average gross revenues for BIAS are **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent higher than for its video services. Opposition at 16. According to Charter, these incentives make economic foreclosure of OVDs irrational. *Id.* Charter's economist, Dr. Fiona Scott Morton, estimates that "New Charter would need to add or maintain more than ten MVPD subscribers for every one OVD subscriber that left New Charter in response to the foreclosure." *Id.* at 16-17. Dr. Scott Morton claims that this ratio is unlikely to be obtained under any plausible set of circumstances. *Id.* at 17.

[207] Opposition at 19 (stating that, for example, New Charter would be able to facilitate OVDs' access to a large number of BIAS subscribers through integration into New Charter's Spectrum Guide, which also allows OVDs to economize by working with only one unified deployment partner). *See also* Charter Jan. 14, 2016, *Ex Parte* Letter at 5-6 (stating that DISH ignored numerous documents in the record reflecting Charter's technical efforts to make OVD content seamlessly available on its Spectrum Guide).

[208] *See* Charter Jan. 14, 2016, *Ex Parte* Letter at 1.

[209] WGAW Petition at 18 (claiming that Charter's growth as a result of this transaction "increase both the incentive and the ability of New Charter to use its increased size to harm OVDs."); Public Knowledge Reply at 1 ("despite its protests to the contrary, Charter would have ample incentive to take anticompetitive actions to benefit its MVPD business while harming online video").

[210] DISH Petition at 26. Stop the Cap echoes that theme, stating "[w]ith many consumers having no practical choice for an alternative broadband provider, allowing Charter to impose usage limits or forcing customers into even higher-priced usage billing plans would deliver a major unfair advantage into the hands of the cable operator, always concerned with protecting its cable television package from emerging online video competition." Stop the Cap Comments at 11.

[211] WGAW Petition at 22; Letter from Markham C. Erickson, Counsel for INCOMPAS, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 4 (filed Jan. 15, 2016) (INCOMPAS Jan. 15, 2016, *Ex Parte* Letter) ("New Charter's increased market power over video programmers resulting from the merger would discourage entry and expansion by smaller broadband providers that would otherwise compete against Charter or Time Warner Cable for customers.") (footnote omitted).

receive a greater share of the benefits that accrue to the cable industry if New Charter harms a rival of the entire industry.[212]

71. *Discussion.* The record indicates that edge providers such as OVDs represent a common threat to both New Charter[213] and the entire cable industry.[214] Post-transaction, New Charter will have a larger footprint and pass more homes, and thus can capture more of the gains from any discriminatory actions directed against the OVD threat.[215] In order to address New Charter's increased incentive to discriminate against OVDs in the future, targeted conditions are necessary to ameliorate anticompetitive harms with respect to data caps and UBP. Moreover, we find that the benefits arising from the buildout and low-income broadband conditions we adopt herein would outweigh any harms in the unlikely event that Charter increases standalone BIAS pricing to blunt the competitiveness of OVDs.

72. As an initial matter, we note that because there is almost no overlap in the local distribution footprints of Charter, Time Warner Cable, and Bright House, the proposed transaction does not result in any direct reduction in local competition for video or BIAS.[216] Consequently, the transaction will not give New Charter a greater ability to impose anticompetitive practices due to a reduction in local competition. Further, New Charter's commitments and the record evidence indicate that New Charter is attempting to mute its immediate incentives to engage in discriminatory behavior through its commitments to preserve several consumer-friendly practices that pre-transaction Charter has utilized, notwithstanding the competitive threat of OVDs.[217] In fact, there is evidence in Charter's internal

[212] *See, e.g.*, AT&T Reply, Attach. at 7 (Schwartz Analysis) ("If a subset of cable companies coordinate to take costly actions that exclude OVDs, the share of the gains that are internalized by the excluding group will vary with their share of the relevant market and the size of the entry barriers.").

[213] According to internal Charter documents, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* CHR2-DOJ-00000246437 at 4, **[BEGIN HIGHLY CONF. INFO.]**

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[214] *See* WGAW Reply at 21 ("The incentive to harm online video exists both for cable companies generally, all of which have experienced the maturation of the MVPD market, and for New Charter in particular.").

[215] *See, e.g.*, Letter from Pantelis Michalopoulos and Stephanie Roy, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Jan. 20, 2016) (DISH Jan. 20, 2016, *Ex Parte* Letter) ("New Charter's incentive to disable, rather than just hurt, its competitors will also grow with its enlarged ability to do so.").

[216] Application at 42-43; *see also* Scott Morton Decl. at para. 5 ("Charter, BHN and TWC have *de minimis* overlap geographically, and therefore do not currently compete to provide MVPD, broadband or voice services to the same subscribers. Because there is *de minimis* geographic overlap between the merging firms, there can be no change in the post-merger firm's incentives to unilaterally increase prices to subscribers."); *see also* Letter from Tom Giovanetti, President, Institute for Policy Innovation, to FCC, MB Docket No. 15-149, at 4-5 (filed Nov. 13, 2015) ("Because of the cable industry's historical business model, these companies do not compete with each other—their business territories do not overlap to a significant degree. Thus, consumer choice will not be reduced by the merger, and that should be the most significant factor in the Commission's review process.").

[217] New America's Open Technology Institute Comments at 1-2 (OTI Comments) (stating the Applicants "preconditioned the transaction with a relatively robust foundation of commitments, including consumer-friendly practices related to data caps and interconnection."); *see also* Charter Jan. 14, 2016, *Ex Parte* Letter at 8 ("As the Applicants have explained, UBB is inconsistent with New Charter's operating strategy to offer simple, uniform pricing and **[BEGIN HIGHLY CONF. INFO.]**

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documents that indicate the company attempts to differentiate itself from its competition by not employing such practices as UBP.[218] However, despite New Charter's commitments advanced in connection with the transaction, concerns remain that the company's combination of distribution assets ultimately will increase New Charter's incentives to take unilateral actions, such as the implementation of data caps and UBP,[219] which may harm rivals like OVDs that pose a competitive threat to the entire cable industry.

73. In the two sections that follow, we discuss how the transaction will affect New Charter's incentives with respect to data caps/UBP and standalone BIAS pricing. Notwithstanding New Charter's apparent intent not to take such actions at present, we conclude that there is a greater probability in the future that New Charter could data caps and UBP to harm video competition. We, however, find it unlikely that the transaction will significantly change New Charter's incentives or abilities to price standalone BIAS in a manner that would harm video competition. However, we conclude that the conditions we impose would both mitigate and sufficiently outweigh any potential harms.

a. Data Caps and Usage-Based Pricing

74. In this section, we consider whether the transaction would increase the likelihood that New Charter would implement data caps or UBP across its territories in order to more effectively impede competition from OVDs. We find that post-transaction, New Charter may be more likely to use data caps or UBP to curb current and future OVD-consumption levels with the purpose of inhibiting or eliminating OVD competition. In addition, we find the Applicants' proposed commitment to refrain from the use of data caps or UBP for three years is insufficient to address these potential harms and that seven years is a more appropriate term.

75. *Background*. In recent years, some BIAS providers have attempted to shift away from flat-rate, unlimited data plans, to UBP models.[220] Frequently these usage-based plans involve some sort

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[END HIGHLY CONF. INFO.]. Consequently, New Charter has no incentive to adopt UBB and has committed not to do so for three years.") (footnotes omitted).

[218] *See* CHR2-DOJ-00000620432 at 5-7, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.] *See also* CHR-FCC-0000102137 at 2, **[BEGIN HIGHLY CONF. INFO.]**

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[219] *See infra* Section V.B.2.a (discussing the use of potentially discriminatory retail BIAS terms by New Charter, such as data caps and UBP). *See also* WGAW Petition at 25-27 ("Applicants' voluntary, time-limited commitment to abstain from implementing data caps or charging select edge providers for interconnection should not preclude a thorough review of how effectively New Charter could use these mechanisms to harm online markets, nor does that commitment allay WGAW's concerns."); DISH Reply at 17 ("It seems very likely, therefore, that New Charter would impose UBP the minute after the expiration of any condition prohibiting it from doing so. In light of Charter's proclivities towards UBP, the three-year term of its proposed commitment is woefully inadequate.").

[220] Comcast, *Questions & Answers About Our Data Usage Plan Trials*, http://customer.xfinity.com/help-and-support/internet/data-usage-trials/ (last visited Dec. 16, 2015); AT&T, *Facts About Your Data Plan*, http://www.att.com/esupport/internet/usage.jsp (last visited Dec. 16, 2015); Karl Bode, *Time Warner Backs Off Metered Billing*, (Apr. 16, 2009), http://dslreports.com/news/101948.

of capped allotment of monthly data usage (data cap), measured in gigabytes (GB).[221] To give effect to these data caps, BIAS providers could enforce the limitations with a combination of overage charges, degraded performance, or discontinued service.[222] Service providers have justified the practice as a way of alleviating alleged network congestion by managing heavy Internet users and also as a method for making additional investments in broadband infrastructure.[223]

76. The Applicants have varied experiences with UBP. Time Warner Cable began a trial data cap program in several markets in 2008, setting a cap of 40 GB per month for users with 15 Mbps downstream service.[224] These customers were charged $1 for each GB exceeding the limit.[225] In response to significant public backlash against the trial policy, Time Warner Cable abandoned data cap trials.[226] Currently, Time Warner Cable does not have mandatory caps, but in 2012 Time Warner Cable launched a "voluntary cap" program called Essentials Internet where Time Warner Cable offers two different plans with discounts if subscribers use, depending on the plan, 5 GB or less or 30 GB or less per month.[227] But because the program is voluntary, all Time Warner Cable customers have access to an unlimited option.[228]

77. Charter does not currently impose data caps. However for several years Charter's Internet Acceptable User Policy (AUP) contained an "Excessive Use of Bandwidth" provision detailing usage limits for its three residential Internet Service tiers—Charter's Lite/Express, Plus/Max, and Ultra 100 tiers—which had 100GB, 250GB, and 500GB usage limits, respectively.[229] The record indicates that Charter only enforced these limits during a trial between December 2010 and January 2012.[230] During the trial enforcement period, customers surpassing the usage limits received a notification that they had exceeded their account's limits.[231] Charter converted users who repeatedly exceeded the cap to business

[221] Public Knowledge, *Data Caps*, https://www.publicknowledge.org/issues/data-caps, (last visited Dec. 16, 2015).

[222] *Id.*

[223] Charter Response to Information Request at 160; Comcast Response to Information Request at 9; Associated Press, *Time Warner Cable Tries Metering Internet*, (Jun. 2, 2008), http://www.nydailynews.com/1.293653.

[224] *See* Associated Press, *Time Warner Cable Tries Metering Internet* (Jun. 2, 2008), http://www.nydailynews.com/news/money/time-warner-cable-metering-internet-article-1.293653; Ryan Paul, *40 GB for $55 Per Month: Time Warner Bandwidth Caps Arrive* (Jun. 3, 2008), http://arstechnica.com/uncategorized/2008/06/40gb-for-55-per-month-time-warner-bandwidth-caps-arrive/.

[225] *See* Associated Press, *Time Warner Cable Tries Metering Internet* (Jun. 2, 2008), http://www.nydailynews.com/news/money/time-warner-cable-metering-internet-article-1.293653; Ryan Paul, *40 GB for $55 Per Month: Time Warner Bandwidth Caps Arrive*, Ars Technica (Jun. 3, 2008), http://arstechnica.com/uncategorized/2008/06/40gb-for-55-per-month-time-warner-bandwidth-caps-arrive/.

[226] *See* Karl Bode, *Time Warner Backs Off Metered Billing* (Apr. 16, 2009), http://www.dslreports.com/shownews/Time-Warner-Backs-Off-Metered-Billing-101948 (quoting Time Warner Cable CEO Glen Britt as having stated, in announcing the end of the trial program, "It is clear from the public response over the last two weeks that there is a great deal of misunderstanding about our plans to roll out additional tests on consumption based billing. As a result we will not proceed with implementation of additional tests until further consultation with our customers and other interested parties.").

[227] Time Warner Cable Response to Information Request at 86. Comcast is trying a similar program. *See* Comcast, *What Is the New Flexible-Data Option*, http://customer.comcast.com/help-and-support/internet/exp-fdo-data-plan (last visited Dec. 16, 2015).

[228] *See* Time Warner Cable Response to Information Request at 86-87.

[229] Charter Response to Information Request at 159-64.

[230] *Id.*

[231] *Id.* at 159.

accounts or asked them to buy a higher residential service tier.[232] In some cases Charter terminated their service.[233] Under its current AUP, Charter retains the ability to manage its network and to limit practices that undermine security or harm services to its customers.[234] This list of prohibited practices includes excessive use of bandwidth that "places an unusually large burden on the network or goes above normal usage,"[235] although Charter no longer publishes specific limits on consumption.[236] Bright House has never implemented data caps or UBP.[237]

78. *Positions of the Parties.* The Applicants have committed to refrain from implementing data caps or UBP for three years.[238] The Applicants' maintain they have no current plans to implement data caps or UBP, or for future trials regarding the same.[239] Charter in particular emphasizes its aversion to data caps, stating that instead of enforcing usage limits it chooses to market the absence of data caps as a competitive advantage.[240] Charter also argues there is a strong business case for not implementing caps. Specifically, Charter explains that it terminated its enforcement of the usage limits trial in the AUP in January 2012 because the benefits to customers of continuing the trial (minimizing bandwidth consumption to preserve a positive Internet experience) would not exceed the program's costs.[241] Charter also states that caps create marketing challenges because they complicate consumer purchasing decisions.[242] Furthermore, Charter argues that data caps increase churn among subscribers.[243] Finally, Charter states that it plans to distinguish itself from its competitors based largely on the quality and speed of its broadband offerings and that data caps undermine that marketing message.[244]

79. Several commenters submit that Charter's three-year commitment to abstain from data caps and UBP is insufficient. WGAW argues that the voluntary, time-limited commitment to abstain from implementing data caps does not sufficiently address New Charter's increased ability to foreclose OVD competition.[245] The Greenlining Institute argues that New Charter does not sufficiently commit to abstaining from data caps, usage-based billing, or early termination fees, finding that the Application contains no specific commitment regarding maintaining these practices and that New Charter's allegedly vague data caps promise does not guarantee the proposed transaction would not harm the public

[232] *Id.*

[233] *Id.*

[234] *Id.* at 159-64.

[235] *Id.*

[236] *Id.*

[237] Advance/Newhouse Response to Information Request at 46.

[238] Application at 18-19.

[239] Time Warner Cable Response to Information Request at 86-87; Advance/Newhouse Response to Information Request at 54.

[240] Charter Response to Information Request at 164.

[241] Charter Response to Information Request at 159-64.

[242] *Id.* at 164.

[243] *Id.*

[244] *Id.* at 159-64.

[245] WGAW Petition at 25. WGAW also notes that New Charter has not committed to waiving early termination fees or modem lease fees so that customers could more readily switch ISPs in the event they became dissatisfied with the implementation of data caps. WGAW Reply at 27-28. Charter notes that it has not had early termination fees since 2012 and has no plans to reintroduce residential contracts with termination fees. Charter Response to Information Request at 155-56.

interest.[246] Free Press submits that even though the Applicants' current and past practices make it unlikely that they would institute caps within the next three years, the transaction's effects would "boost other ISPs' ability to engage in the very practices the Applicants have temporarily sworn off," effectively making the Applicants' commitments a moot point.[247] Stop The Cap maintains that without including all variations of UBP, Charter's commitment is largely meaningless and therefore must be expanded to prohibit all forms of usage-based pricing, including any "data plans" that supposedly allow customers to voluntarily exceed their usage allowance, at a cost.[248] DISH argues that the Commission should accept New Charter's commitment not to impose data caps but extend the commitment to seven years, along with requiring a stronger commitment to abide by the *2015 Open Internet Order* in its entirety.[249] Public Knowledge argues that if the purpose of the condition is to protect consumers by ensuring a competitive playing field for online video then only a ten-year duration would provide a sufficient window.[250] Americans for Tax Reform contends that the three-year moratorium on data caps would be sufficient to protect nascent OVD competition.[251] Similarly, Southlake Chamber of Commerce and others argue that the commitment would be a major relief for all its customers residing in its community.[252]

80. *Discussion.* We are unconvinced by Charter's arguments that it has no incentive to harm OVDs through the use of data caps or UBP.[253] We rejected this argument in our discussion above and find that New Charter's incentive to retain MVPD subscribers is quite strong. Internal Charter documents detailing Charter's anxiety regarding OTT substitutes for MVPD services evidence Charter's incentives.[254] For example, Charter's internal documents predict **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[255] Charter's internal documents appear to indicate that the company's position on usage-based billing is subject to change **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[256] For example, a 2012 PowerPoint

[246] Petition to Deny of The Greenlining Institute, MB Docket No. 15-149, at 13-14 (filed Oct. 13, 2015) (Greenlining Institute Petition).

[247] Free Press Petition at 55-56.

[248] Stop The Cap Comments at 10.

[249] DISH Petition at 69-70.

[250] *See* Letter from John Bergmayer, Senior Staff Attorney for Public Knowledge, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (Feb. 8, 2016) (Public Knowledge Feb. 8, 2016, *Ex Parte* Letter).

[251] Digital Liberty and Americans for Tax Reform Comments at 2 (Americans for Tax Reform Comments).

[252] Letter from Mark Guilbert, President, Southlake Chamber of Commerce, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Aug. 3, 2015); *see, e.g.*, Letter from Chris Vierra, Mayor, City of Ceres to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Dec. 1, 2015); Letter from Dana McGrew, Superintendent, IOSCO Regional Educational Service Agency, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Nov. 19, 2015).

[253] Application at 44, 48.

[254] CHR-DOJ-0000636589, **[BEGIN HIGHLY CONF. INFO.]**

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[255] Charter Response to Information Request, Exhibit 35-1 at 7.

[256] CHR-DOJ-0000636589 at 21, **[BEGIN HIGHLY CONF. INFO.]**

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presentation **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[257] While a 2010 executive level presentation **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[258] However, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[259] A 2014 document discusses **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[260] Again, the document notes that **[BEGIN HIGHLY CONF. INFO.]**

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81. OVD competition has been persistent for several years.[263] These incentives have not disappeared and, as indicated by recent documents including **[BEGIN HIGHLY CONF. INFO.]**

[257] *Id.*, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. Charter contends that it ultimately decided against implementing data caps at that time. *See* Charter Jan. 14, 2016, *Ex Parte* Letter at 1.

[258] CHR-DOJ-0002265578 at slide 9, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[259] *Id.* at 10, 13, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[260] CHR-DOJ-0000757324 at CHR-DOJ-0000757330, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[261] CHR-DOJ-0000757324 at 7, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[262] CHR-FCC-0000219309, **[BEGIN HIGHLY CONF. INFO.]**

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[263] Indeed, aside from Charter's stated business strategy, it appears that much of Charter's reservations around data caps had to do with **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. CHR-DOJ-0000636589 at 21, **[BEGIN HIGHLY CONF. INFO.]**

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[END HIGHLY CONF. INFO.],[264] with **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[265] Overall, it seems that Charter is keeping its options open regarding data caps, should such **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[266] We also note that despite Time Warner Cable's relative lack of success in implementing usage-based billing, its internal documents leave no doubt that it is also incentivized to use data caps to protect its MVPD business.[267]

82. The record evidence shows that Charter has been steadily making preparations to ease its ability to impose UBP. For example, while Charter has produced documents **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**,[268] many of those same supporting documents **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[269] These documents show, for example, that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[270] One email message **[BEGIN**

[264] CHR-DOJ-0000927353, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[265] CHR2-DOJ-00000368134 at 4, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[266] CHR-DOJ-0000636589 at 21, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** We also note that in addition to New Charter's incentives to harm OVD competition, it also has considerable incentives to implement usage-based pricing simply as a method of generating additional revenue. The record indicates that New Charter **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *See* LBR-0031493 **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[267] *See* TWC-DOJ-00679808 at 9, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; TWC-DOJ-00704379 at 114, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[268] Charter Response to Information Request, Exhibit 35-1 at 6 **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; CHR-DOJ-0000636589, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO]**.

[269] Charter Response to Information Request, Exhibit 35-3 at 15-17.

[270] *Id.*

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83. We further find that the proposed transaction may make New Charter more likely to impose data caps or UBP to inhibit OVD competition and that New Charter's use of those caps would be more damaging to OVDs than any of the Applicants acting individually. We acknowledge that Charter's current management team has not implemented data caps or UBP and have rejected internal proposals for implementing such policies. Post-transaction, however, the management team will be operating a substantially different company with a far greater footprint and subject to significantly different incentives. First, the merged entity will likely have lower programming costs, which will increase New Charter's margin for video and therefore, increase New Charter's incentive to protect this larger profit stream from online competitors with data caps.[272] Second, the transaction may increase New Charter's incentive to use data caps or UBP against OVDs because, as explained above, the rewards it would reap from doing so may be larger than those currently available to Charter. That is to say that any cable MVPD provider taking action to weaken an OVD provider through the use of data caps would need to balance the cost of those actions against the potential benefits. Currently, to extent MVPDs use data caps and UBP to foreclose OVDs from the market, those benefits would be shared by Charter and all the other MVPD providers. Post-transaction, however, a larger portion of those gains would accrue to New Charter alone because it would also control the territories of Time Warner Cable and Bright House. We find that this increased incentive may makes such activity more profitable and therefore more likely. Third, any future use of data caps and UBP by New Charter will likely have a greater impact than may be anticipated by its unilateral action. Comcast continues to expand its data caps and UBP across its footprint. Because of Comcast's actions, New Charter may be more confident that its actions, alongside Comcast's actions, will harm OVDs and blunt their competitiveness. Therefore, we find that New Charter may be more likely and more able to use data caps or UBP to curb current and future OVD-consumption levels with the purpose of inhibiting OVD competition.

84. While wired BIAS providers sometimes claim there are cost-based and efficiency justifications for implementing usage-based billing policies,[273] the Applicants fail to advance such a justification or demonstrate any cost-based or efficiency enhancing rationale for the implementation of data caps or UBP. We find that the record in this proceeding demonstrates that data caps and UBP can harm online video consumption. Charter's internal documents are consistent with findings across the industry[274] that IP-delivered video has driven a rapid growth in residential data consumption.[275] According to Sandvine, streaming entertainment now accounts for over 70 percent of internet traffic over

[271] CHR-DOJ-0000925377, **[BEGIN HIGHLY CONF. INFO]**

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[272] *See infra* Section VI.B; *see also* DISH Jan. 20, 2016, *Ex Parte* Letter.

[273] *See 2015 Open Internet Order*, 30 FCC Rcd at 5814, paras. 151-153.

[274] Cisco, *Cisco Visual Networking Index Predicts IP Traffic to Triple from 2014-2019; Growth Drivers Include Increasing Mobile Access, Demand for Video Services*, http://newsroom.cisco.com/press-release-content?articleId=1644203 (last visited Dec. 16, 2015) ("IP video will account for 80 percent of all IP traffic by 2019 up from 67 percent in 2014.")

[275] Charter Response to Information Request, Exhibit 35-1 at 7; CHR-FCC-0000098190 at 7, **[BEGIN HIGHLY CONF. INFO.]**

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wireline BIAS during peak evening hours.[276] And data caps and UBP represent an acute threat to virtual MVPDs that offer consumers a substitute for Charter's MVPD service. For example, DISH reported that households subscribing to its DISH World (now known as Sling International[277]) virtual MVPD watched approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** hours of online video per day on the service, not including other OVD viewing time.[278] Based on the Commission's prior estimates,[279] a household viewing that many hours of online video per day could easily exceed a 250 GB data cap and pay, using a current Comcast UBP plan as an example,[280] an extra $10 to $35 per month. For DISH's OTT customers, UBP would significantly increase the cost, in some cases more than doubling it, of using the company's OTT services, which are currently priced between $15 and $25 per month.[281]

85. We find that by their very nature, the data caps and UBP in use by wired BIAS providers currently significantly and chiefly affect online video traffic.[282] There are few, if any, other residential data uses that would cause a consumer to hit the data caps currently employed by BIAS providers.[283] When implemented, subscribers who rely on their BIAS as the primary means for consuming online video often must curtail their video usage or pay more than those subscribers that rely primarily on traditional MVPD service to consume video. We note that Comcast's subscribers to MVPD service are not subject to any usage-based limitations on that service. Neither were Charter and Time Warner Cable video customers during those companies' past usage-based BIAS pricing trials. Through the practice of metering consumption of rival online video offerings while provisioning MVPD service without such metering, cable companies can discriminate in favor of their own video services and protect them from competition.

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[276] Sandvine, *Over 70% of North American Traffic Is Now Streaming Video and Audio*, (Dec. 7, 2015), https://www.sandvine.com/pr/2015/12/7/sandvine-over-70-of-north-american-traffic-is-now-streaming-video-and-audio.html; *see also Sixteenth Video Competition Report*, 30 FCC Rcd at 3373, para. 260.

[277] Sling TV, *Sling TV Introduces Sling International; Launches Nearly 200 Channels in18 Languages*, http://news.sling.com/press-release/company/sling-tv-introduces-sling-international-launches-nearly-200-channels-18 (last visited Mar. 11, 2016).

[278] Petition to Deny of DISH Network, MB Docket No. 14-57, at 15 (filed Aug. 25, 2014) (DISH Petition to Deny in Comcast/TWC).

[279] *Sixteenth Video Competition Report*, 30 FCC Rcd at 3375, para. 264; Open Internet Advisory Committee, Economic Impacts of Open Internet Frameworks Working Group, Federal Communications Commission, *Policy Issues in Data Caps and Usage-Based Pricing*, at 10 (Aug. 20, 2013).

[280] *See* Mike Dano, *Sling TV CEO comes out against Comcast's data caps*, FierceCable (Dec. 7, 2015), http://www.fiercecable.com/node/88856/ (reporting that in some areas Comcast imposes a 300 GB usage limit and charges $10 for each additional 50 GB, but permitting unlimited usage for an additional flat fee between $30 - $35).

[281] *See* Sling International, Homepage (last visited Mar. 9, 2016), http://www.sling.com/International. *See also* DISH Reply at 3 ("A Sling TV subscriber, for example, who now pays $20.00 per month for her Sling TV service, but a hefty $40.00 or $65.00 to one of the Applicants for broadband, may be confronted with a prohibitively expensive proposition if she has to fork over another $20 to New Charter.").

[282] For example, when Comcast initially implemented its 250 GB usage allowance in 2008, it claimed that less than 1% of users would be affected. John Mahoney, *Comcast's 250GB Data Caps Now Official, Starting in October*, Gizmodo (Oct. 8, 2008), http://gizmodo.com/5043253/ (quoting Comcast's FAQ "The vast majority - more than 99% - of Comcast customers will not be impacted by a 250 GB monthly bandwidth or data usage threshold."). More recently, Comcast says 8% of users exceed the 300 GB usage allowance. *See* Tali Arbel, *How Comcast Wants to Meter the Internet*, AP (Oct. 27, 2015), http://apne.ws/1PPjQcK.

[283] *Cf.* AT&T, *Broadband Usage FAQs*, http://www.att.com/esupport/article html#!/dsl-high-speed/KM1010099 (reporting that AT&T's BIAS offerings include 150 GB for High Speed DSL, 250 GB for U-Verse High Speed Internet, 500 GB for U-Verse High Speed Internet 100 and 300, and 1 terabyte for U-Verse High Speed Internet 1Gbps) (last visited Mar. 10, 2016); *see supra* note 282 (discussing Comcast data caps).

86. Given this conclusion, and the weight of the evidence in this record, we view the Applicants' commitment to a three-year moratorium on data caps as insufficient to prevent potential harm to OVDs in general and virtual MVPDs in particular. As noted above, the Applicants have failed to prove that BIAS entry or expansion will likely occur in a timely or sufficient manner to counteract the transaction's competitive effects. Because entry and expansion will not diminish New Charter's BIAS shares in the foreseeable future, subscribers will continue to have no (or limited) alternative cable or fiber BIAS options when faced with data caps and UBP designed to deter online video consumption. At least one internal Charter document discussing the commitment suggests that New Charter could **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[284] We agree with the commenters that express concerns with the length of the commitment.[285] We recognize, however, that our ability to predict New Charter's future market power based on the current record diminishes the farther into the future we look. Therefore we adopt, as a condition to granting the Application, a requirement that New Charter shall not implement data caps for a period of seven years. We find that this period of time will allow the edge provider market room to become more mature and better positioned to withstand attempts by New Charter to impose data caps and UBP at levels indeed to blunt their competitiveness. Seven years may also provide the high-speed BIAS provider market sufficient time to develop further with additional investments in fiber from established wireline BIAS providers,[286] Wireless 5G technology,[287] use of smartgrid fiber for broadband, additional overbuilding, and other potential competitors to traditional wired BIAS providers. It is our expectation that these developments will foster competition in the market to make the anticompetitive use of data caps less tenable in the future.

b. Standalone BIAS Pricing

87. In this section, we assess whether the proposed transaction would enhance New Charter's incentive to harm video competition through its pricing of standalone BIAS and bundled services. Based on our review of the record, we find that Charter[288] currently does not price its standalone BIAS so as to disincent consumers from switching to OVDs. We further find that while the transaction may increase New Charter's incentives to use higher standalone broadband pricing to harm OVDs, the documentary

[284] CHR2-DOJ-00000077093, **[BEGIN HIGHLY CONF. INFO.]**

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[285] WGAW Reply at 25, 27-28; Free Press Reply at 15-16; Greenlining Institute Petition at 13-14; *see* DISH Jan. 20, 2016, *Ex Parte* Letter at 3 **[BEGIN HIGHLY CONF. INFO.]**

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[286] For example, competitive ISPs such as Google Fiber are investing in new broadband plant within New Charter territory such as Kansas City, Missouri, Salt Lake City, Utah, and Charlotte, North Carolina.

[287] While there are some estimates that early 5G technology will launch in 2020, some feel that even this timetable (which is well beyond the three years proposed by the Applicants) is very optimistic. *See* William Pelegrin, *Sprint Doesn't Believe 5G Will Hit The United States By 2020* (Oct. 19, 2015), http://www.digitaltrends.com/mobile/sprint-doesnt-believe-5g-will-hit-the-united-states-by-2020/.

[288] We are focusing our review in this section on Charter's standalone BIAS pricing practices, since New Charter will be adopting Charter's current BIAS pricing plans. *See* Application at 19 (claiming that within twelve months of closing, "New Charter will market services consistent with Charter's current packaging and pricing strategies").

evidence does not support the conclusion that New Charter would likely undertake such a strategy. To the extent the transaction poses a harm with respect to New Charter's BIAS pricing, we conclude that such a harm would be outweighed by the benefits of the conditions that we impose in this Order.

88. *Positions of the Parties.* Several parties urge the Commission to condition approval of the transaction on New Charter's offering of a standalone BIAS option for consumers.[289] These parties express concern that New Charter would have an increased incentive post-transaction to raise the price of its standalone BIAS product, thereby effectively tying its BIAS and video services by making the bundled option the consumer's only reasonable economic choice.[290]

89. The Applicants contend that, consistent with Charter's current practices, New Charter would offer BIAS on both a standalone and bundled basis throughout its new footprint "with competitive pricing and consumer-friendly terms" and without modem fees, or early termination fees.[291] The Applicants claim Charter's current pricing and packages are less expensive than both Time Warner Cable's and Bright House's comparable offerings.[292] The Applicants again argue that New Charter would have an incentive to promote OVDs and edge providers [293] and that any effort to foreclose OVDs through discriminatory practices (like standalone BIAS pricing) would be contrary to its economic interest in growing its BIAS subscriber base.[294] Finally, the Applicants claim that "[c]urrently, Charter has no plans to increase the price of its standalone broadband offering."[295]

90. *Discussion.* We find that Charter's current BIAS pricing conduct does not appear to be aimed at disadvantaging OVDs or steering consumers away from standalone BIAS in favor of its bundled

[289] *See, e.g.*, Letter from Stephanie A. Roy, Counsel to DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1, Appx. A (filed Apr. 19, 2016) (DISH Apr. 19, 2016, *Ex Parte* Letter); DISH Petition at 6, 69, Exhibit A (seeking a standalone residential broadband requirement similar to the one adopted in *Comcast-NBCU*.); Stop the Cap Comments at 8-9.

[290] *See, e.g.*, DISH Apr. 19, 2016, *Ex Parte* Letter at 3; WGAW Reply at 24-25; Free Press Reply at 9.

[291] Opposition at 56; Application at 3, 19. However, New Charter will not force existing Time Warner Cable and Bright House customers to change their current service and pricing plans post-transaction. Charter, Time Warner Cable, and Bright House, White Paper, Additional Information Regarding Charter's Residential Pricing and Packaging Methodology, at 4 (Residential Pricing and Packaging White Paper), transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Dec. 11, 2015) ("Importantly, while a new pricing and packaging plan will be offered to TWC and BHN subscribers, those subscribers will not be forced to change their current plan. Current TWC and BHN subscribers who prefer to retain their services on their existing pricing or move to new pricing at Rack Rates at the expiration of any promotional period may do so.").

[292] Application at 2-3.

[293] Several internal Charter documents discuss claims that OVDs and edge providers bring to enhance Charter's broadband service. *See, e.g.*, CHR2-DOJ-00000246437 at 3, **[BEGIN HIGHLY CONF. INFO.]**

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[294] Application at 6, 46; Opposition at 17. Charter argues that its consumer contracting practices "demonstrate its support of OVD entry and innovation, and Charter has committed to continue these practices post-merger." *Id.* at 18. Similarly, both Charter and Time Warner Cable advertise to subscribers that they can use our high-speed data services to better view OVDs." *Id.* According to Dr. Scott Morton, the "evidence suggests New Charter would lose a substantial number of profitable broadband subscribers if OVDs were foreclosed." Scott Morton Reply Decl. at para. 120.

[295] Residential Pricing and Packaging White Paper at 4.

products. In comparing standalone BIAS options, Charter's current introductory standalone BIAS rate is among the lowest of any of the major BIAS providers for the speeds offered.[296] Charter offers a standalone BIAS option with a 12-month introductory price of $39.99 per month for 60 Mbps downstream speeds.[297] By comparison, Time Warner Cable charges $64.99 per month for standalone BIAS at 50 Mbps downstream speeds,[298] Bright House charges $74 per month for standalone BIAS at speeds of 35 Mbps downstream,[299] Verizon charges $50 per month for symmetrical speeds of 50 Mbps,[300] AT&T charges $65 per month for 45 Mbps downstream,[301] CenturyLink charges $97 per month for standalone BIAS at 60 Mbps downstream,[302] and while Comcast does not have nationwide standalone BIAS pricing, it does have a standalone BIAS offering at 75 Mbps downstream that is priced between $40 and $50 per month in certain markets.[303] Based on the advertised prices of its peers, Charter appears to be

[296] *See* CHR2-FCC-00000002925, **[BEGIN HIGHLY CONF. INFO.]**

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[297] Charter, *Combine TV, Internet & Phone for the Best Deal*, https://www.charter.com/browse/content/packages (last visited Jan. 29, 2016) (after one year, the standalone BIAS price rises to the standard rate of $59.99/month).

[298] Time Warner Cable, *TV, Internet & Phone Plans*, http://www.timewarnercable.com/en/plans-packages/cable-internet.html?cic721 (last visited Jan. 29, 2016). Time Warner Cable's BIAS tiers are (all plans are 12-month introductory pricing, except for the most basic tier): (1) $64.99/month for 50 Mbps downstream; (2) $54.99/month for 30 Mbps downstream; (3) $44.99/month for 20 Mbps downstream; (4) $34.99/month for 15 Mbps downstream; (5) $29.99/month for 6 Mbps downstream, and (6) $14.99/month for 2 Mbps downstream). *See also* TWCable-DOJ000295256, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** We note that less than two weeks after the New York Public Service Commission approved the Charter-Time Warner Cable-Bright House transaction (with conditions), Time Warner Cable increased the rates on certain of its standalone BIAS plans in the New York area (the 15 Mbps downstream plan increased to $59.99 per month, while the 6 Mbps downstream plan increased to $49.99 per month). Katharine Trendacosta, *Time Warner Cable Unleashes Infuriating Price Hike*, Gizmodo (Jan. 19, 2016), http://gizmodo.com/1753780357.

[299] Bright House, *Offers*, http://brighthouse.com/shop/internet.html (last visited Jan. 29, 2016). Bright House has several BIAS tiers (at 12-month introductory prices): (1) $199/month for 300 Mbps downstream (only available in Florida); (2) $104/month for 150 Mbps downstream; (3) $89/month for 75 Mbps downstream; (4) $74/month for 35 Mbps downstream; (5) $54/month for 15 Mbps downstream bundled with phone service; and (6) $20/month for 2 Mbps downstream.

[300] Verizon's FIOS service has several tiers of symmetrical standalone BIAS (all at 12-month introductory prices): (1) $270/month for 500 Mbps; (2) $170/month for 300 Mbps; (3) $70/month for 150 Mbps; (4) $60/month for 100 Mbps; and (5) $50/month for 50 Mbps. Verizon, *Go Fiber Optic with FIOS Internet*, http://www.verizon.com/home/fios-fastest-internet (last visited Feb. 2, 2016).

[301] AT&T has several tiers of standalone BIAS (all at 12-month introductory prices): (1) $75/month for 75 Mbps downstream; (2) $65/month for 45 Mbps downstream; (3) $55/month for 24 Mbps downstream; (4) $45/month for 18 Mbps downstream; (5) $40/month for 12 Mbps downstream; (6) $35/month for 6 Mbps downstream; and (7) $30/month for 3 Mbps downstream. AT&T, *U-verse Internet Offers*, https://www.att.com/shop/u-verse/offers.html?alt_ineligible_page=OFP (last visited Feb. 2, 2016).

[302] CenturyLink charges $54/month for its base BIAS speed tier of 1.5 Mbps downstream, while it charges $154/month for a speed tier of 1 Gbps downstream. CenturyLink, Inc. Response to Information Request at Attach. 5b, Bates Nos. 0000031-33. At 60 Mbps downstream, CenturyLink charges $97/month. *Id.*

[303] Comcast, *New Customer Internet Offers*, http://www.xfinity.com/?CMP=1 (last visited Feb. 2, 2016). For example, in Atlanta. Comcast has the following tiers of standalone BIAS (all at 12-month introductory prices): (1) $90/month for 105 Mbps downstream; (2) $45/month for 75 Mbps downstream; (3) $25/month for 25 Mbps downstream; and (4) $15/month for 3 Mbps downstream. In San Francisco, the BIAS tiers are as follows: (1) $50/month for 150 Mbps downstream; (2) $45/month for 75 Mbps downstream; (3) $40/month for 25 Mbps downstream; and (5) $30/month for 10 Mbps downstream. In Philadelphia, the 75 Mbps downstream offering is priced at $50/month.

pricing its standalone BIAS competitively, and in fact would lower the standalone BIAS prices currently available in Time Warner Cable and Bright House territories for comparable speeds. With regard to its current introductory bundled pricing model, in contrast to the other Applicants, Charter's standalone BIAS prices are notably less expensive than its bundled prices.[304]

91. We conclude that the record provides insufficient evidence to demonstrate that Charter will change its post-transaction standalone BIAS pricing by pricing its bundled service offerings close in price to its standalone BIAS in an effort to alter the value proposition of OVDs' video offerings.[305] Charter's current BIAS pricing, which the company states it plans to continue post-transaction,[306] does not suggest New Charter will make standalone BIAS offerings economically prohibitive. The documentary evidence leads us to reach a conclusion regarding standalone BIAS pricing different from our findings regarding data caps and UBP. With respect to data caps, Charter's documents show that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[307] Charter's documents do not show that its top-level executives—or its pricing or marketing teams—have considered changing the company's standalone BIAS pricing strategy.[308]

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[304] For its introductory prices, Charter charges $39.99/month for its standalone BIAS product, compared to $89.98/month for Charter's bundled video and BIAS (a 12-month introductory rate comprised of $59.99/month for the basic video tier and $29.99/month for BIAS) and compared to the 12-month introductory rate for Charter's bundled triple play BIAS, phone, and basic video services, which is $29.99/month per service. *See* Charter, *Combine TV, Internet & Phone for the Best Deal*, https://www.charter.com/browse/content/packages (last visited Jan. 29, 2016). By comparison, Time Warner Cable has numerous introductory bundles that include BIAS, where generally the total bundled pricing is closer in cost to Time Warner Cable's standalone BIAS offerings. Time Warner Cable prices, for example, its 50 Mbps downstream BIAS at 59.1% of the price of its triple-play service using BIAS at 50 Mbps downstream ($65 vs. $110), and it prices its 30 Mbps service at 61.1% of the price of its triple-play service using BIAS at 30 Mbps downstream ($55 vs. $90). *See* Time Warner Cable, Inc., *TV, Internet & Phone Plans*, http://www.timewarnercable.com/en/plans-packages/cable-internet.html?cic721 (last visited Jan. 29, 2016). Bright House tends to price its standalone BIAS even closer to the price of its bundled services than does Time Warner Cable. For example, Bright House prices its introductory 35 Mbps standalone BIAS at 74.7 percent of the cost of its premier double-play service ($74 vs. $99), and it prices its 15 Mbps broadband service at 73 percent of the cost of its standard double-play service ($54 vs. $74). Bright House Networks, *Offers*, http://brighthouse.com/shop/internet html (last visited Jan. 29, 2016).

[305] *See* CHR-DOJ-0001998954 at 1, [**BEGIN HIGHLY CONF. INFO.]**

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[306] *See* Residential Pricing and Packaging White Paper at 4 ("Currently, Charter has no plans to increase the price of its standalone broadband offering. Moreover, because included in Charter's pricing and packaging model is the strategic goal of national pricing, competition in one market benefits consumers in areas where the local competitor (e.g., ILEC, CLEC, or municipality) is offering lower value broadband offerings. Consumers in those markets tend to receive the benefit of competition's effects on prices in other Charter markets, as Charter seeks to lift price-adjusted quality levels across the board.").

[307] *See supra* paras. 80-83.

[308] *See, e.g.*, Letter from John Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Dec. 17, 2015) (noting "Charter confirmed that its pricing strategy is the same for standalone broadband pricing as it is for bundled services, and that Charter currently has no plans to increase the price of its standalone broadband offering.").

92. The record indicates that Charter currently does not engage in anticompetitive pricing of standalone BIAS.[309] We conclude that the merger is unlikely to increase the risk that New Charter will price either its standalone BIAS or its bundled services in a manner designed to disadvantage OVDs. To the extent the transaction poses a potential harm with respect to BIAS pricing, we believe such a harm is speculative and would be minimal.[310] In any event, any such harm—if it occurred—would be outweighed by the benefits secured by the conditions we impose herein, including a residential build-out requirement and the establishment of a standalone BIAS plan for low income consumers.[311]

C. Increased Concentration in Interconnection Services

93. In this section, we assess the potential harms that the proposed transaction poses to the exchange of data across the Internet. We begin by determining that the relevant market is the national market for access to wired BIAS subscribers via interconnection. We find that the transaction will transform New Charter into a leader in that national interconnection market. We further find that New Charter's share of wired nationwide BIAS subscribers and control of interconnection traffic will give it sufficient market and bargaining power in the interconnection market to raise prices for edge providers, and to cause harm to video competition by impairing rival OVDs. Finally, we determine that conditions are necessary to address potential public interest harms and impose a limited set of conditions to remedy the identified harms, including a mandatory settlement-free interconnection condition and an interconnection disclosure requirement.

1. Background

a. The Internet Interconnection Ecosystem

94. The Internet is a complex ecosystem that connects consumers, businesses, governments, non-profits and others to each other. Internet communications enable a vast array of content and services that drives a virtuous cycle of innovation to the public's great benefit.[312] As the Commission has previously recognized, BIAS providers operate within a two-sided market.[313] On one end of the market, BIAS providers sell consumers access to the Internet, while at the other end, BIAS providers offer edge providers access to the BIAS providers' consumers.[314] In a two-sided market like BIAS, the value each set of customers derives from the platform increases as usage by customers on the other side increases. Residential subscribers value BIAS more as edge providers offer more content and higher quality content. And edge providers value interconnection with BIAS providers more as the providers service more subscribers and their subscribers' engagement increases.

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[309] According to Charter, it sets its prices for both standalone and bundled services on a number of factors, including **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. Residential Pricing and Packaging White Paper at 3. Charter also states that its pricing depends on **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *Id.*

[310] DISH argues that New Charter will have every incentive "to use its bundling, cross-subsidy advantage to protect its video product." DISH Apr. 19, 2016 *Ex Parte* Letter at 5. In support of that claim, DISH cites exclusively to documents from Time Warner Cable's discussion of pre-transaction pricing strategy. *Id.* at 6-8. However, Applicants have stated that New Charter will adopt Charter's (not Time Warner Cable's) pricing strategies post-transaction, and DISH presents no documents suggesting New Charter will likely adopt Time Warner Cable's pricing behavior.

[311] *See infra* Sections VI.F & VI.N.4.

[312] *2015 Open Internet Order*, 30 FCC Rcd at 5603, paras. 1-3.

[313] *Id.* at 5747, para. 338.

[314] *See id.*

95. BIAS providers like the Applicants function as gatekeepers between their subscribers and the rest of the Internet; all traffic going to or from a subscriber must pass through the BIAS provider. Because of this gatekeeping role, BIAS providers with large numbers of subscribers have greater leverage to negotiate preferential terms and prices with edge providers seeking to reach those subscribers. As we discuss below in greater detail, the largest BIAS providers can use this leverage to charge higher prices that could stifle edge provider innovation, and create terms and prices that discriminate against OVDs that compete with the BIAS providers' affiliated video services.

96. Intermediaries connect edge providers at one end of the Internet with BIAS subscribers at the other end. Edge providers offer content, applications, and services for use by BIAS subscribers.[315] Examples of intermediaries include BIAS providers, backbone providers, and content delivery networks (CDNs). BIAS providers "offer a mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints."[316] Backbone providers, in essence, provide long-haul transport that connects their customers (BIAS providers) and edge providers.[317] CDNs are distributed systems of servers that cache edge provider content closer to end users to lessen delivery costs and improve delivery quality.[318]

97. These various parties interconnect in order to exchange Internet traffic among their networks, typically at "exchange points."[319] The structure of interconnection agreements between edge providers, BIAS providers, CDNs, and backbone providers can have a significant impact on the ability of consumers and businesses to connect with each other.[320] If an edge provider does not obtain sufficient interconnection capacity through its agreements, it may encounter congestion while trying to deliver traffic to BIAS subscribers.

98. Interconnection agreements govern, first, what traffic is exchanged between the parties and over what route, and, second, the compensation, if any, to be paid by one party to the other. Historically, parties have exchanged traffic on either a transit or a peering basis. In a transit relationship, which is usually fee-based, the transit provider gives its customer access to the full Internet, and gives the rest of the Internet access to the transit customer. In a peering relationship, the parties exchange traffic only between themselves and their respective customers. Peering can be "settlement free" (no fees exchanged) or one party can charge the other for "paid peering."[321] While previously, large BIAS providers paid backbone providers for transit to receive Internet traffic, they now typically enter into peering relationships with edge providers and CDNs, sometimes on a paid basis, in exchange for allowing

[315] *2010 Open Internet Order*, 25 FCC Rcd at 17907, para. 4 n.2. Examples of major edge providers include Google and Amazon, but there are many types of edge providers, such as online news, education, and gaming services. *See* Michael Kende, The Digital Handshake: Connecting Internet Backbones, FCC Working Paper #32, at 2-3 (2000), https://transition.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf.

[316] 47 CFR § 8.2(a).

[317] *See Verizon v. FCC*, 740 F.3d 623, 628-29 (D.C. Cir. 2014) (describing backbone networks and broadband providers); *WorldCom-MCI* Order, 13 FCC Rcd 18025, para. 143-44.

[318] *See* Rajkumar Buyya, Al-Mukkadim Khan Pathan, James Broberg, & Zahir Tari, Working Paper, A Case for Peering of Content Delivery Networks at 3 (Oct. 2006), http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4012578; Body of European Regulators for Elec. Commc'ns, An Assessment of IP Interconnection in the Context of Net Neutrality at 47 (2012), http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/?doc=1130; Akamai, *Our Customers*, https://www.akamai.com/us/en/our-customers.jsp (last visited Jan. 21, 2016).

[319] *2015 Open Internet Order*, 30 FCC Rcd at 5686, para. 194 n.482.

[320] *Id.* at 5689-92, paras. 196-201 (discussing the Internet traffic exchange market and recent disputes).

[321] *Id.* at 5687-88, para. 196-98.

them to interconnect with and reach the BIAS provider's subscribers.[322] Edge providers may also be able to reach a BIAS provider's subscribers by contracting with a CDN or transit provider who has access to the BIAS provider's network.

99. Within the market for interconnection with BIAS providers, the providers fall along a spectrum. At one end of the spectrum are small BIAS providers without their own backbone which rely heavily on transit providers to connect to the full Internet. These small providers do not have the infrastructure necessary to reach Internet exchange points and arrange for settlement-free peering.[323] At the other end of the spectrum are large BIAS providers that operate network infrastructure as a backbone provider or on a scale approaching that of a backbone provider. At present five BIAS providers fall into this category and currently charge for paid peering: Comcast, AT&T, Verizon, Time Warner Cable, and CenturyLink.[324] In between are medium-sized BIAS providers (like Charter) with partial backbones and presence at exchange points that are able to negotiate settlement-free peering with some edge providers but continue to rely on transit arrangements to reach the full Internet.

100. As we discuss further below, the success of a BIAS provider charging paid peering depends on the two factors: the number of subscribers (or "eyeballs") that the BIAS provider serves (and thus the portion of an edge provider's business that those BIAS subscribers represent) and the BIAS providers' control over interconnection capacity into its network.[325] Networks that have strong control over interconnection and purchase little or no transit service can be accessed primarily by peering.[326] In this regard, we note that BIAS providers can make available paid peering capacity while constraining settlement-free peering capacity. Conversely, when a BIAS provider has less control over interconnection and purchases some transit, an edge provider can attempt to deliver its traffic over those transit links, thereby circumventing the need to enter into a direct relationship (paid or settlement-free) with the BIAS provider.[327] Through size and control, the largest BIAS providers can solidify their

[322] *See id.* at 5687-92, para. 196-201; *Paid Peering*, DrPeering, http://drpeering.net/white-papers/Ecosystems/Internet-Paid-Peering.html (last visited Apr. 29, 2016); William Norton, *The Evolution of the U.S. Internet Peering Ecosystem*, DrPeering, http://drpeering.net/white-papers/Ecosystems/Evolution-of-the-U.S.-Peering-Ecosystem.html (last visited Apr. 29, 2016).

[323] These small BIAS providers typically rely on backbone providers to obtain "transit" services, giving them access to the rest of the Internet that they can resell to their subscribers.

[324] *See, e.g., 2015 Open Internet Order*, 30 FCC Rcd at 5689-92, paras. 199-201; Comcast Response to Information Request at Exh. 125.1; AT&T First Supplemental Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Maureen R. Jeffreys, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Nov. 24, 2015); Verizon Response to Information Request at 3; Time Warner Cable Response to Information Request at Exh. 51; CenturyLink Inc. Response to Information Request at 4-5.

[325] *See infra* Section V.C.3; Appendix C., Section II.B.1.

[326] *See, e.g.*, Verizon, Press Release, *Verizon Offering Pricing Incentives to CDN Providers to Connect Directly to Company's Internet Backbone Network* (January 7, 2009), http://newscenter2.verizon.com/press-releases/verizon/2009/verizon-offering-pricing html; Letter from Tiffany West Smink, Associate General Counsel, CenturyLink, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 4 (filed Oct. 30, 2015); *AT&T-DIRECTV Order*, 30 FCC Rcd at 9211-12, para. 214.

[327] Consequently, if a BIAS provider has transit links, the price it could charge for paid peering will be moderated by the market price of transit—the edge provider's alternate route into the BIAS provider's network. But a BIAS provider without any transit links does not face the same price constraint on its paid peering prices. Further, when the BIAS provider relies on transit, it must pay for every inbound bit of traffic over a transit link. Thus, such a BIAS provider faces strong incentives to offer settlement-free peering to any edge provider that is prepared to bring traffic to its doorstep instead of over a transit link because it would save on transit costs.

position as gatekeepers between their subscribers and edge providers—and use this position in a two-sided market to their benefit.[328]

b. The Applicants' Interconnection Operations

101. Charter is currently the nation's sixth-largest BIAS provider serving approximately 4.8 million residential subscribers.[329] Charter maintains a backbone with national reach, with a presence in eight major peering cities.[330] Charter uses this backbone network to connect its own properties, provide business services, interconnect with edge providers, CDNs, and other access networks, and reduce its transit costs.[331] Charter does not currently engage in any paid peering relationships.[332] Instead, Charter relies on a combination of settlement-free peering relationships and transit service it buys from several backbone service providers to exchange traffic with the full Internet.[333]

102. Time Warner Cable is the nation's third-largest BIAS provider, with 11.7 million residential subscribers.[334] Time Warner Cable also handles the interconnection negotiations on behalf of Bright House's 1.9 million residential subscribers.[335] Time Warner Cable currently maintains a backbone with nationwide reach that is present at seven major peering cities.[336] Time Warner Cable has established settlement-free interconnection relationships with many of the backbone service providers while relying

[328] *See 2015 Open Internet Order*, 30 FCC Rcd at 5747, para. 338 ("the Commission agrees that a two-sided market exists").

[329] Application at 7, 29. Charter serves an additional 0.3 million commercial customers. Application at 29. The Applicants' broadband subscribership and the number of nationwide broadband subscribers has been placed in the record here subject to the *Protective Order*. *See 477 Data PN*, 30 FCC Rcd at 12749, Exh. 1a. For purposes of our analysis, the Applicants' subscribership as reported in the Application is sufficiently close to the number of year-end 2014 subscribers they reported to the Commission on Form 477 that for ease of reading we will refer to the public numbers in the text. The Applicants' December 2014 Form 477 data show the following number of total broadband subscribers: **[BEGIN HIGHLY CONF. INFO]**

[END HIGHLY CONF. INFO].

[330] Charter Response to Information Request at 184; Charter Communications Inc., Annual Report (Form 10-K) at 17 (Feb. 21, 2014).

[331] *See* CHR2-DOJ-00000338676, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; CHR2-DOJ-00000259102, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; CHR2-DOJ-00000259838, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[332] Charter Response to Information Request at 190, 217-18.

[333] *See id.* at 213-18 (listing peers and transit providers).

[334] Application at 10, 29. Time Warner Cable serves an additional 0.6 million commercial customers. Application at 29.

[335] *Id.* Bright House serves an additional 0.2 million commercial broadband customers. *Id.* Time Warner Cable and Bright House have separately confirmed that Time Warner Cable currently handles the transit and peering negotiations on behalf of both companies. *See* Letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attach. at 1 (filed Jan. 19, 2016); Advance/Newhouse Response to Information Request at 41; Time Warner Cable Response to Information Request at 67. Therefore, under the current Time Warner Cable-Bright House arrangement, an edge provider cannot gain access to Bright House's network without negotiating with Time Warner Cable either directly for interconnection, or indirectly through a third party that has a transit or peering relationship with Time Warner Cable.

[336] Time Warner Cable Response to Information Request at 99-100 (stating that Time Warner Cable acquired a backbone when it acquired Adelphia in 2006 which it expanded into a new backbone and brought online in 2007).

on transit connections for some traffic, such as intercontinental traffic.[337] Time Warner Cable has negotiated paid-peering relationships with several edge providers and CDNs.[338]

103. New Charter is projected to become the nation's second-largest residential BIAS provider, serving 18.4 million residential BIAS subscribers.[339] New Charter will control access to approximately 35 percent more BIAS subscribers than Time Warner Cable and Bright House combined, and will inherit Time Warner Cable's well-developed portfolio of settlement-free interconnection and paid-peering arrangements with nearly all of the major backbone providers, CDNs, and edge providers.[340] After the transaction closes, New Charter will be positioned to integrate the Applicants' backbones into a unified national backbone, and will have increased bargaining power on the interconnection side of the two-sided BIAS market.[341] Our economic analysis indicates that, in the absence of a condition, New Charter's paid peering traffic in the medium term would likely increase significantly to over **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of its total traffic.[342] We are concerned that this consolidation of bargaining power will harm other participants in the interconnection market, and further consider the effect of this transaction below.

2. Relevant Markets

104. *Product Market.* To evaluate the transaction's competitive and other public interest effects, we first identify the relevant product market.[343] Here, we find that the relevant product market is the market for access to wireline BIAS subscribers via interconnection (the "interconnection market").[344] Edge providers, either directly or via transit providers and CDNs, need to access their customers and potential customers over the network controlled by their customers' BIAS providers. BIAS is a two-sided market that brings together edge providers and consumers.[345] Because consumers subscribe to wired cable or fiber BIAS for its particular attributes, including its ability to distribute large quantities of high quality video traffic, OVDs and other edge providers would not view interconnection with wireless or satellite BIAS providers as a substitute for wired BIAS providers to reach their customers. Access to cable and fiber wired BIAS is crucial to the newest and most innovative business models, and cable and

[337] Time Warner Cable maintains settlement-free interconnection relationships with several backbone service providers, including: **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* Time Warner Cable Response to Information Request at Exh. 41-01. Settlement-free interconnection is a variation of settlement-free peering. In a settlement-free interconnection arrangement, traffic exchanged between the parties within an agreed-upon traffic ratio is settlement-free, and traffic in excess of that ratio is "sending-party-pays."

[338] Time Warner has paid-peering relationships with **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Time Warner Cable Response to Information Request at Exh. 41-01.

[339] *See 477 Data PN*, 30 FCC Rcd at 12749, Exh. 1a.

[340] *See id.* at 12749, Exhs. 1a, 1b.

[341] *See supra* Section V.C.1.

[342] *See* Appendix C, Section II.B., para. 21.

[343] *See generally 2010 DOJ/FTC Horizontal Merger Guidelines* § 4 at 7-8.

[344] *See Verizon v. FCC*, 740 F.3d 623, 653 (D.C. Cir. 2014) (noting that "broadband providers furnish a service to edge providers").

[345] *2015 Open Internet Order*, 30 FCC Rcd at 5747, para. 338.

fiber BIAS providers are well-positioned to act as gatekeepers to their subscribers, collecting interconnection fees in return for access.[346]

105. We find that the relevant interconnection product market is not limited to any set speed threshold. The Applicants argue that if a product market for high-speed BIAS subscribers exists, it is not limited to subscribers who have download speeds of 25 Mbps download speeds and faster.[347] Consumers' increasing consumption of video from OVDs, and at higher resolutions, requires increasingly faster downstream speeds—which in turn requires robust, uncongested interconnection.[348] However, as we discuss above,[349] there is no single speed that perfectly captures the wired BIAS market and we do not adopt a specific speed measure to define the product market here.

106. *Geographic Market.* We find that the relevant geographic market for access to wireline BIAS subscribers via interconnection is national. Edge providers' business models typically depend on the ability to reach customers on a nationwide basis.[350] Edge providers have two main types of business models: subscriber-based and advertising-based.[351] The more BIAS subscribers that an edge provider can reach with its service, the more potential subscribers it can have, and in turn, the greater the potential revenues from subscriptions or advertising.[352] Edge providers therefore view interconnection with different BIAS providers—whether directly or through transit or CDN services—as substitute sources of eyeballs regardless of the portion of the United States each BIAS provider serves.

107. There is no indication that edge providers contract for direct or indirect interconnection with BIAS providers on a local market-by-market basis. Instead, the record indicates that, whether an

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[346] *Verizon v. FCC*, 740 F.3d at 646 (discussing role of BIAS as gatekeeper); *2010 Open Internet Order*, 25 FCC Rcd. at 17919, 17935, paras. 24, 50. Because BIAS providers often face minimal competition, they have little fear of losing subscribers in the event of an interconnection dispute. *See supra* para. 64-67.

[347] *See* Opposition at 33-39; Charter Response to Information Request at 76.

[348] *Cf.* Bill Baer, Assistant Attorney General, U.S. Dep't of Justice, Keynote Address at Duke University Law School's Future of Video Competition and Regulation Conference (Oct. 9, 2015), http://www.justice.gov/opa/file/782401/download ("So many consumers' only option for high-speed internet service is the cable company—the same cable company that also derives significant revenues from its cable television business. This means that as online video distribution increases the cable companies have both the incentives and means to use their gatekeeper power to slow innovation to protect their video profits. In this way, the high-speed internet market and the video distribution market are inextricably intertwined.").

[349] *See supra* para. 59.

[350] *See* DISH Petition, Exh. B, at para. 16 (Lynch Decl.); WGAW Petition at 22. Because, like video programming, the content supplied by edge providers is a non-rival good that can be distributed at little marginal cost, the relevant geographic market could potentially be national or international in scope. *See News Corp.-Hughes Order*, 19 FCC Rcd at 506, para. 64. However, we conclude that the relevant market here is national, not international. The record indicates that edge providers typically contract for distribution (whether from transit providers, CDN services, or direct interconnection) on a national basis. *See, e.g.*, TWCable-DOJ-000000537, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]; *see also, e.g.*, WGAW Petition at 29; DISH Petition at 44. Many prominent websites either differentiate their products based on regional markets or have separate U.S. and international versions. Also, OVDs are likely to have the right to distribute their programming only in the United States. *See, e.g.*, Petition to Deny of Netflix, Inc., MB Docket No. 14-57, at 8-10, 24-27, Florance Decl. at paras. 14-24; Evans Decl. at para. 122 (market for edge provider distribution of its content is national).

[351] See Sixteenth Video Competition Report, 30 FCC Rcd at 3381, para. 295.

[352] *See id.* at 3352, para. 213.

edge provider is contracting for transit, CDN services, or direct interconnection with a BIAS provider, it provides access to its full footprint.[353]

3. Increased Interconnection Costs

108. We find that the transaction will enable New Charter to impose higher costs on edge providers, transit services, and CDNs due to its increased market power. In the *2015 Open Internet Order*, we concluded that "broadband Internet access providers have the ability to use terms of interconnection to disadvantage edge providers and that consumers' ability to respond to unjust or unreasonable BIAS provider practices are limited by switching costs."[354] This transaction aggravates those concerns—it creates a large BIAS provider and thereby strengthens its ability to unilaterally impose increased interconnection costs on edge providers, transit providers, and CDNs, ultimately raising costs to consumers for a diverse array of Internet-based services and impeding the virtuous cycle of development.[355] We conclude that increased interconnection costs can disrupt the virtuous cycle of innovation by diverting funds towards interconnection fees that could have otherwise been used for further innovation or price reductions for consumers.[356]

109. New Charter will be well positioned to leverage its larger BIAS subscriber base and increased control of interconnection traffic to act as a gatekeeper between edge providers and their customers. The combination of Charter and Time Warner Cable will increase the potential damage to their business if they forgo—even temporarily—interconnection with New Charter compared with either Charter or Time Warner Cable individually.[357] Moreover, because there is limited competition in its BIAS footprint and BIAS subscribers switch providers infrequently, New Charter will be able to pressure edge providers without fear of harming its retail BIAS business.

a. BIAS Subscriber Shares

110. Since we have determined the relevant market, we turn to assessing the impact this transaction will likely have in the market. As discussed above, New Charter will control a larger national share of BIAS subscribers than Time Warner Cable controls today.[358] This holds true regardless of the

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[353] Time Warner Cable's current paid peering contracts **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *See* Time Warner Cable Response to Information Request at 96 (providing copies of all recent interconnection agreements). Charter's settlement-free peering commitment would provide compulsory interconnection access to its subscriber-base on a national basis. *See* Charter Jul. 15, 2015, Peering Policy *Ex Parte* Letter; Letter from Samuel L. Feder, Counsel for Charter, to Marlene Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Dec. 11, 2015), Attach. 3 (Interconnection White Paper); *see also, e.g.*, WGAW Petition at 22, 24 (stating that "[l]arge OVDs must negotiate in the nationwide market for interconnection in order to reach consumers at all"); DISH Petition at 44 (asserting that "[a]ll of these edge providers – whether established providers or fledgling entrants – require national, or at least near-national, access at sufficient speeds to compete with incumbent competing services").

[354] *2015 Open Internet Order*, 30 FCC Rcd at 5694, para. 205. *See also AT&T-DIRECTV Order*, 30 FCC Rcd at 9214, para. 217.

[355] *See 2015 Open Internet Order*, 30 FCC Rcd at 5694, para. 205.

[356] *See id.* at 5694, para. 205 ("When Internet traffic exchange breaks down—regardless of the cause—it risks preventing consumers from reaching the services and applications of their choosing, disrupting the virtuous cycle.").

[357] *See* Lynch Decl. at para. 18 (noting that "Charter and TWC's offerings are substitutes for one another" but post-transaction, "the option of including either Charter or TWC in the mix will disappear"). As discussed above, Time Warner Cable handles Bright House's interconnection matters. *See supra* para. 102 & note 335.

[358] We find that examining product substitutes for the Applicants' cable BIAS will be a more effective approach to evaluating the impact of the transaction on the interconnection market rather than selecting a specific speed to evaluate. The Applicants contend they compete with services offering a wide range of speeds. *See* Application at 44. Several petitioners argue the effect of the transactions must be evaluated focusing on BIAS subscribers

(continued….)

BIAS speed examined. Given that Time Warner Cable handles Bright House's transit and peering negotiations on behalf of both companies,[359] we believe it is appropriate, when calculating national market shares in an interconnection context, to combine Time Warner Cable and Bright House's pre-transaction subscriber counts. According to December 2014 data reported on Form 477, after the transaction, New Charter will control **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of all national fixed BIAS subscribers, which constitutes **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percentage points more than Time Warner Cable's and Bright House's current combined national market share.[360] At download speeds of at least 10 Mbps, New Charter's national market share will be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, which is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percentage points more than Time Warner Cable and Bright House's current combined national market share.[361] And at download speeds of at least 25 Mbps, New Charter's national market share will be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percentage points more than the combined national market share of Time Warner Cable and Bright House.[362]

111. As we discuss above, because BIAS subscribers infrequently switch their service to another local competitor,[363] New Charter will be able to maintain its national market share of BIAS subscribers and, in turn, its bargaining leverage over interconnection partners.[364] The Applicants' economist Dr. Scott Morton claims that "New Charter would lose a substantial number of profitable broadband subscribers if OVDs were foreclosed,"[365] and Charter argues that "[c]ustomers told that their ISP is providing sub-optimal service for their OVDs can then respond by changing ISPs."[366] However, the Applicants' claims about switching in these situations assume without support that: (1) consumers have suitable alternatives; (2) consumers are willing to absorb the switching costs associated with changing their BIAS provider; and (3) if a BIAS provider engages in certain practices that affect distribution quality, consumers are able to determine that their BIAS provider, rather than the OVD (or other edge provider) in question, is responsible for the poor performance. The available evidence suggests that consumers, possibly for a combination of these aforementioned reasons, do not switch BIAS providers when confronted with poor edge provider performance.[367] We find that the Applicants have

(Continued from previous page)
receiving at least 25 Mbps downstream service. *See, e.g.*, DISH Petition at 45-46; WGAW Petition at 19; Free Press Petition at 15; Public Knowledge Reply at 3. We find that, regardless of the speed examined, New Charter's national market share of subscribers stays reasonably consistent and therefore selecting a specific speed for evaluation would not substantially benefit our analysis.

[359] *See supra* para. 102 & note 335.

[360] *See 477 Data PN*, 30 FCC Rcd at 12749, Exhs. 1a, 1b.

[361] *See id.*

[362] *See id.*

[363] *See supra* paras. 64-65.

[364] *See 477 Data PN*, 30 FCC Rcd at 12752, Exh. 3a. Only three percent of New Charter customers would have more than one alternative option at download speeds of at least 25 Mbps. *See id.*

[365] Scott Morton Reply Decl. at para. 120. For a discussion of the survey Dr. Scott Morton cites to support the claim, *see supra* note 188.

[366] Interconnection White Paper at 6.

[367] *See, e.g.*, DISH Reply, MB Docket No. 14-57, Exhibit B, para. 14 (stating the conclusion of economist Dr. David Sappington, retained by DISH in the Comcast/Time Warner Cable transaction proceeding that, "The data reveal that Comcast experienced **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** during or after the period in which Netflix's traffic was slowed on Comcast's network.").

failed to demonstrate that BIAS subscribers would leave New Charter if the company manipulated interconnection to degrade the performance of an edge provider. Indeed, the evidence in the record indicates that consumers did not abandon Time Warner Cable during the time period when Netflix's service was degraded on Time Warner Cable's network.[368] According to DISH's economist Dr. Zarakas, Time Warner Cable's churn **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** during the several months when Netflix service was degraded.[369] We note that Dr. Zarakas produced two separate analyses with different methodologies but similar conclusions,[370] and the Applicants did not dispute the results of either study.

112. Moreover, Dr. Scott Morton's claims regarding churn in response to OVD degradation do not account for the possibility that New Charter could be willing to tolerate some amount of BIAS subscriber churn if the negative monetary effects were outweighed by the resulting benefit accruing to New Charter's MVPD business. In other words, even if we accepted Dr. Scott Morton's claim that BIAS subscribers would leave New Charter if the company degraded OVDs, the threat of those departures would not necessarily disincent New Charter from foreclosing OVDs if doing so created a net monetary benefit. Furthermore, as just discussed, the evidence suggests that any subscriber departures, if they occur, would be minimal.

b. Increased Bargaining Power within the Interconnection Market

113. We find that the proposed transaction strengthens New Charter's bargaining position in the interconnection market in two related ways. First, by making New Charter the gatekeeper to 18.4 million residential BIAS subscribers, or over 20 percent of the national market.[371] Second, by increasing New Charter's ability to control interconnection traffic into its own network, allowing it to constrain routes and extract fees.

114. Cable and fiber BIAS subscribers represent a particularly valuable set of customers for many edge providers. Various edge providers (e.g., high-definition OVDs, real-time gaming, and online backup) offer services that may only function acceptably when delivered over a high-speed connection.[372] Due to the lack of alternatives, the most bandwidth-intensive edge provider services face intense pressure

[368] Letter from Stephanie A. Roy, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attach., at para. 3 (filed Mar. 15, 2016) (Zarakas Supplemental Decl.); *see also* Zarakas Decl. at para. 21 (finding **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in Time Warner Cable's churn during the Netflix degradation period relying on a time trend variable).

[369] Zarakas Supplemental Decl. at para. 3. In his supplemental declaration, Dr. Zarakas also found that "for non-competitive zip codes, voluntary internet churn increased in response to faster Netflix streaming speeds"—a result he described as "counter-intuitive." *Id.* This second finding is likely explained by improvements in network performance (and, correspondingly, Netflix performance) that resulted from churn that occurred after the Netflix degradation ended.

[370] With respect to Dr. Zarakas' initial churn analysis, the regression reflected in Table 3 of the analysis included a time trend variable that is difficult to justify theoretically. *See* Zarakas Decl. at Table 3. Because the quality of the Netflix stream progressively worsened over the first few months of the congestion episode, we find that is possible that inclusion of the time trend variable could have effected Zarakas' measurement of the impact of the Netflix congestion on Time Warner Cable's churn in his initial analysis. In response to this possible concern, Zarakas eliminated the time trend variable for his supplemental analysis and determined that even without the variable, Time Warner Cable's churn **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** during the Netflix congestion. *See* Zarakas Supplemental Decl. at paras. 3, 6.

[371] *See 477 Data PN*, 30 FCC Rcd at 12749, Exhs. 1a, 1b.

[372] *See* DISH Petition at 45-46 (stating that OTT services, especially streaming video, require "extremely high bandwidth"); Free Press Petition at 48.

to access cable or fiber BIAS subscribers, and thus will be the most susceptible to imbalanced bargaining power with cable or fiber BIAS providers.

115. New Charter's bargaining power in the interconnection market will increase due to its larger share of BIAS subscribers. As described in the background section above, New Charter would become the second-largest BIAS provider in the United States, with an 18.4 million residential BIAS customers, over 20 percent of the residential BIAS customers nationwide (and approximately 35% larger than Time Warner Cable and Bright House combined). Our economic analysis suggests that the ability of a BIAS provider to charge for access to subscribers increases with the number of subscribers; the greater the number of subscribers, the more the BIAS provider can charge on a per-subscriber basis.[373] As the nation's second-largest BIAS provider serving over one-fifth of American wired BIAS consumers, edge providers would need access to New Charter subscribers to remain viable as a business.[374] Furthermore, as previously discussed, because New Charter would face little competition to retain its BIAS subscribers, there is little competitive restraint on its efforts to collect fees for access to its subscribers.

116. A BIAS provider's ability to charge for access to its subscribers depends on its ability to control traffic entering and exiting its network. Without such control, edge providers can access the BIAS provider's subscribers via alternative means.[375] Thus, the degree of control that a BIAS provider is capable of exerting can be evaluated by measuring its dependence on transit capacity.[376] And the more transit capacity a BIAS provider uses, the greater the supply of capacity into the BIAS provider's network with no paid peering fees. In contrast, BIAS providers that have only limited transit capacity can act as gatekeepers controlling the traffic exchanged with their networks via direct interconnection.

117. The transaction would also give New Charter greater control over the traffic entering and exiting its network. Charter currently uses transit services to transport a significant amount of its out-of-network traffic,[377] and edge providers currently can reliably reach Charter's subscribers by purchasing transit.[378] New Charter would be able to use Time Warner Cable's existing peering arrangements instead of relying on transit services, and would likely be able to use its combined subscriber-base to negotiate additional peering arrangements that the Applicants were unable to conclude individually. The transaction would transform Charter from **[BEGIN HIGHLY CONF. INFO.]**

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c. Higher Interconnection Fees

118. Because the transaction will give New Charter increased bargaining power in the interconnection market, we expect that without conditions higher interconnection fees for edge providers

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[373] *See* Appendix C, Section II.B.2.

[374] *See* Lynch Decl. at para. 18 (noting that "Charter and TWC's offerings are substitutes for one another" as edge providers pursue "a critical mass of high-speed broadband subscribers," but post-transaction, "the option of including either Charter or TWC in the mix will disappear").

[375] *See supra* Section V.C.1.a.

[376] *See supra* Section V.C.1.

[377] *See* Charter Response to Information Request at 217. **[BEGIN CONF. INFO.]**
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[378] *See* Application at 29; *477 Data PN*, 30 FCC Rcd at 12749, Exhs. 1a, 1b.

are likely to result. As noted above, New Charter will have a valuable base of BIAS subscribers and will be able to act as a gatekeeper to those subscribers by virtue of its network structure and the limited number of BIAS alternatives available to consumers at the local level. Time Warner Cable personnel have experience managing that company's interconnection business to generate revenue,[379] and New Charter will be in a position to use that experience along with its improved bargaining position to unilaterally increase interconnection prices harming economic efficiency.

119. The Applicants argue that "New Charter will continue Charter's history of non-discriminatory interconnection and traffic management" and further contend that Charter's new interconnection policy introduced last July, which the Applicants have committed to maintain post-transaction, would "extend[] Charter's practice of reliable settlement-free interconnection."[380] Charter's internal documents describe Charter's **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[381] To the extent that Charter has not exploited its position as a BIAS provider to generate revenue in the interconnection market, we agree with the petitioners and commenters who that argue the primary restraint was Charter's lack of ability.[382] Time Warner Cable, by contrast, is a larger company with a history of charging for interconnection.[383] Post-transaction and in the absence of any conditions, we find that New Charter would likely adopt practices similar to Time Warner Cable with the ability to charge higher interconnection prices.

120. The Applicants contend that New Charter would be unable to harm edge providers because the company would have a smaller BIAS subscriber base than Comcast.[384] In making this argument, the Applicants recognize the concern of many edge providers that Comcast can use its size to harm edge providers by imposing comparatively higher interconnection prices.[385] During its 2014 dispute with Netflix, some observers claim that Comcast demonstrated its ability to leverage Internet interconnection into its network in order to pressure Netflix to pay for a direct interconnect agreement with Comcast.[386] The record indicates that Time Warner Cable, despite having fewer subscribers than

[379] *See* Time Warner Cable Response to Information Request, at 96-101 (describing Time Warner Cable's extensive experience in managing its interconnection business, including several thousand interconnection agreements).

[380] Opposition at 54-55.

[381] CHR-FCC-0000312699 at slide 41, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]; CHR-FCC-0000304045 at slide 62, **[BEGIN HIGHLY CONF. INFO.]**

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[382] *See* COMPTEL Petition at 13; OTI Comments at 5.

[383] *See* Time Warner Cable Response to Information Request at 96-101 (describing Time Warner Cable's extensive experience in managing its interconnection business, including several thousand interconnection agreements); *cf.* Charter Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from John. L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Oct. 23, 2015) (Charter Oct. 23, 2015, Updated Response to Information Request) (describing Charter's recent interconnection operations, lack of experience with paid peering, and reliance on transit services for Internet connectivity).

[384] *See* Application at 44-45.

[385] During the Commission's consideration of Comcast's abandoned bid to acquire Time Warner Cable in 2014, several commenters stated that Comcast was able to exert pressure on edge providers and competitors due to its size. *See, e.g.*, Packet Host, Inc. Comments, MB Docket No. 14-57, GN Docket No. 14-28, at 1-2 (filed Oct. 2, 2014). *See also* Letter from Hershel A. Wancjer, Counsel for Cogent Communications Group, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 14-57, at 7 (filed Feb. 2, 2015).

[386] *See 2015 Open Internet Order*, 30 FCC Rcd at 5689-92, paras. 199-201.

Comcast, has used similar tactics to pressure edge providers to pay for access to its BIAS subscribers.[387] Likewise, AT&T, Verizon, and CenturyLink—companies with large subscriber bases and a high degree of control of interconnection access to their networks—have all been able to impose paid peering charges on edge providers.[388] While New Charter's subscriber base would be 12 percent smaller than Comcast's,[389] it will have a sufficiently large subscriber base and control over interconnection to have the ability to impose higher interconnection prices.[390] The Commission's economic analysis confirms that interconnection prices are likely to rise if the transaction is completed, with New Charter capturing those price increases.[391]

121. We conclude that, without conditions, New Charter would be able to extract higher interconnection fees as a result of the transaction. Because New Charter would not face substantial competition for BIAS subscribers, it would not be incented to pass through to its subscribers a significant proportion of these additional fees.

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[387] *See* TWC-DOJ-02000001 at 1, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *See also* TWC-DOJ-02005912 at slide 6, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; TWC-DOJ-01371399 at slide 11, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; TWC-DOJ-01821385 at slide 7, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; *Id.* at slides 3-4, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *See also infra* note 415.

[388] *See supra* Section V.C.1, para. 99.

[389] *See* Application at 45. We note that the data in the Application **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** from the Form 477 data on New Charter's market share. *See 477 Data PN*, 30 FCC Rcd at 12749, Exh. 1a.

[390] It could be argued that increased interconnection revenues might not have any consequences for economic efficiency if post-transaction the change did nothing more than transfer revenues from edge providers who have market power in dealing with BIAS providers to New Charter without having any effect on either party's production decisions (in both cases the parties, operating as bilateral monopolists, simply maximize profits between them, and then split their shares). However, the vast majority of edge providers have no market power when dealing with BIAS providers. Indeed, even the largest of these would likely only have limited if any market power when dealing with a large BIAS provider like Comcast or New Charter. *See, e.g.*, *2015 Open Internet Order*, 30 FCC Rcd at 5689-92, paras. 199-201 (discussing, *inter alia*, interconnection disputes between Netflix and Comcast). Thus, the gain in market rents New Charter would obtain as a monopsonist from edge providers would inefficiently reduce edge provider output, and raise their prices, directly harming the customers of edge providers. One might attempt to rehabilitate the argument that we reject by noting that in a two-sided market the expectation would be that higher interconnection fees would lead to lower prices for subscribers, which would raise consumer welfare. We dismiss this second contention by noting that it is implausible that any increase in interconnection revenues to New Charter would be fully passed through to subscribers, because of the lack of competition in the local BIAS market. Consequently, it is even less likely that any fall in subscriber charges would fully offset the harms subscribers experience in facing higher edge provider prices and a reduced choice of edge provider output. Moreover, for the reasons given in the *2015 Open Internet Order*, the reduced choice of edge provider output is not a factor that New Charter would fully take into account in making its private profit-maximizing decisions, so it does not, in setting interconnection and BIAS prices, act to promote economic efficiency or consumer welfare. *See 2015 Open Internet Order*, 30 FCC Rcd at 5686-96, paras. 194-206. Thus, while New Charter would take into account the negative effect of its actions on edge providers and the extent that influences demand for its BIAS offerings, the net effect of the increase in New Charter's economic power would be to harm consumers and economic efficiency.

[391] *See* Appendix C, Section II.B.

4. Specific Harms to OVDs

122. We now consider the interconnection-related harms that the transaction poses to video competition through harms that could impact OVDs specifically. We previously concluded that New Charter will have a general incentive to discriminate against OVDs because they compete with New Charter's affiliated video services.[392] Here, we further find that New Charter will have the ability and incentive to discriminate against OVDs via the interconnection market. New Charter will have greater ability to discriminate against OVDs because it will have greater control over interconnection access to its network, as discussed above.[393] Moreover, OVDs are more vulnerable to interconnection-related harms than most other edge providers because of their intensive networking demands.[394] Our economic analysis supports our conclusion that New Charter will have specific incentive and ability to discriminate against OVDs via interconnection.[395] Restricting interconnection capacity for OVDs does not just pressure OVDs to pay higher fees for interconnection, it can also reduce the ability of the OVDs to serve their customers, and potentially driving those customers to switch to New Charter's affiliated video services. Accordingly, we determine that the transaction, if not conditioned, would pose a potential harm to video competition by increasing New Charter's incentive and ability to harm OVDs via interconnection practices.

123. *Positions of the Parties.* The Applicants argue that New Charter would lack the ability to foreclose or degrade OVDs.[396] They note that Charter's current interconnection management practices, such as best-efforts delivery and maintaining **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.] at the company's interconnection points would prevent New Charter from harming OVDs.[397] Charter further contends that "[a]cross most of its Cable Modem Termination System locations, Charter employs **[BEGIN HIGHLY CONF. INFO.]**
[END HIGHLY CONF. INFO.] subscriber traffic management software, in which source- and protocol-agnosticism is hard-coded," which it claims would prevent New Charter from foreclosing or degrading specific Internet traffic.[398] The Applicants also argue that their commitment to submit interconnection disputes to the Commission for arbitration would prevent anticompetitive interconnection practices.[399]

124. Several commenters disagree and argue that New Charter would have greater ability to harm OVDs than the Applicants acting individually. Public Knowledge asserts that "New Charter would have the leverage to require payments of Internet content companies that must interconnect with it."[400] DISH argues that, both generally and with respect to interconnection practices, pay-TV replacement OTT services, sometimes referred to as "virtual MVPDs," are "particularly vulnerable to blocking and discrimination on the broadband pipe" because they require high volumes of traffic and are more likely to be viewed as a competitor to an MVPD service than other OVDs.[401] DISH also argues that Charter and Time Warner Cable's BIAS subscriber bases "are substitutes for one another in an OVD's attempt to

[392] *See supra* Section V.A, paras. 38-46.

[393] *See supra* Section V.C.3.

[394] *See infra* paras. 125-130.

[395] *See* Appendix C, Section II.B.

[396] *See* Application at 44-48; Opposition at 52-56.

[397] *See* Charter Response to Information Request at 177; Opposition at 53.

[398] Opposition at 54. *See also* Charter Response to Information Request at 177.

[399] *See* Application at 19; Opposition at 53.

[400] Public Knowledge et al. Petition at 6.

[401] Lynch Decl. at para. 21.

assemble a mix of broadband BIAS providers sufficient to reach a critical mass of high-speed of high-speed broadband subscribers" but post-transaction, "the option of including either Charter or [Time Warner Cable] in the mix will disappear."[402]

125. *Discussion.* We find that the transaction increases New Charter's ability and incentive to harm video competition by harming OVDs. As discussed above, New Charter will have a greater ability to harm OVDs through its enhanced control over interconnection than either Charter or Time Warner Cable could individually.[403] New Charter will have a greater incentive to use interconnection to harm these OVDs because OVDs are especially vulnerable and New Charter's affiliated video services are likely to pick up subscribers dissatisfied with a congested OVD.[404]

126. OVDs are more susceptible to interconnection-related harms than other edge providers.[405] OVDs are particularly heavy consumers of network resources, requiring up to 5 Mbps for a single High Definition stream or up to 25 Mbps for a single 4K stream.[406] Consumers can typically obtain these amounts of bandwidth only from wired BIAS providers, and, as discussed above, many consumers have limited options for BIAS capable of supporting robust OVD usage.[407] Because OVDs are bandwidth intensive, their services are particularly affected by congestion at the interconnection point.[408] Thus, once OVDs achieve sufficient scale, they have little choice but to bargain with the largest BIAS providers, like New Charter, for satisfactory direct interconnection access to BIAS subscribers.

127. Two of the three Applicants, Charter and Bright House, have limited current ability to discriminate against OVDs via interconnection. As noted above, BIAS providers that rely heavily on

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[402] *Id.* at para. 18.

[403] *See supra* Section V.C.3.

[404] *See supra* Section V.C.3; *see also* Appendix C, Section II.B.3.

[405] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9214, para. 217 ("OVDs are vulnerable to degradation at the interconnection point with a broadband Internet access service provider's last mile network"); *Fourteenth Video Competition Report*, 27 FCC Rcd at 8731, para. 271 ("OVDs rely on high-capacity and high-speed broadband Internet services that are often owned and controlled by unaffiliated MVPDs"); *Id.* at 8733, para. 274 ("MVPDs have the ability and incentive to degrade the broadband service available to unaffiliated OVDs").

[406] *See* Application at 44; Netflix Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Sarah K. Leggin, Counsel for Netflix, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 3 (filed Oct. 23, 2015) (Netflix Response to Information Request); *see also See Connect America Fund et al.*, Report and Order, 29 FCC Rcd 15644, 15649-50, para. 17 (2014) (*Connect America Fund Report*) (finding that HD video streaming requires 5 Mbps downstream); Netflix, *Internet Connection Speed Recommendations*, https://help.netflix.com/en/node/306 (last visited Jan. 21, 2016) (recommending 5.0 mbps for HD quality video streaming and 25 Mbps for Ultra HD quality); Hulu, *Hulu Subscription System Requirements*, http://www.hulu.com/help/articles/19754 (last visited Jan. 21, 2016) (recommending 1.5 Mbps for Standard Definition video streaming and 3 Mbps for High Definition); Amazon, *System Requirements for Streaming on Your Computer*, http://www.amazon.com/gp/help/customer/display html?nodeId=201422810 (last visited Jan. 21, 2016) (recommending 900 Kbps for Standard Definition video streaming and 3.5 Mbps for High Definition). *See also supra* para. 54.

[407] *See supra* para. 64-67.

[408] *See* Netflix Response to Information Request at 3-4 (noting that congestion can reduce the effective bandwidth for a video stream, and that **[BEGIN HIGHLY CONF. INFO.]**

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transit to bring traffic onto their networks have less leverage in the market for interconnection access to their subscribers because they are ill-positioned to act as gatekeepers for access to BIAS subscribers.[409] Charter today **[BEGIN CONF. INFO.]**

[END CONF. INFO.].[410] Under Bright House's arrangement with Time Warner Cable, Time Warner Cable obtains its Internet access and manages interconnection for Bright House.[411] **[BEGIN CONF. INFO.]**

[END CONF. INFO.], Charter and Bright House today do not have the ability to selectively degrade OVDs via interconnection.[412] Despite this disadvantage, however, the record indicates that Charter **[BEGIN HIGHLY CONF. INFO.]**

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128. Time Warner Cable, in contrast to the smaller Applicants, is better positioned to exploit interconnection as a means to harm OVDs. Time Warner Cable maintains **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** transit capacity into its network and has a large number of peering and settlement-free peering arrangements.[414] Accordingly, Time Warner Cable can act as a gatekeeper by allowing the **[BEGIN HIGHLY CONF. INFO.]** **[END CONF. INFO.]** transit routes into its network to congest. Doing so disadvantages OVDs that rely on those routes to access Time Warner Cable's customers. The record suggests that Time Warner Cable may have used this strategy in 2014 to pressure Netflix into a paid peering arrangement, demonstrating its ability to use interconnection to harm OVDs.[415]

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[409] *See supra* Section V.C.3.b.

[410] Charter maintains transit connections via **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** providers, and transit accounts for **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** percent of Charter's interconnection traffic. *See* CHR2-DOJ-00000338676, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Netflix, the largest source of traffic among OVDs, reaches Charter subscribers via transit, and represents **[BEGIN HIGHLY CONF. INFO.]** [**END HIGHLY CONF. INFO.]** percent of Charter's total backbone traffic. *See* Interconnection White Paper; CHR2-DOJ-00000259102 **[BEGIN HIGHLY CONF. INFO.]**

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[411] *See supra* Section V.C.1.b.

[412] Nevertheless, as discussed in Section V.B.2 *supra*, both Charter and Bright House do have the ability to impose retail terms for residential BIAS that may provide obstacles for OVDs or other edge providers.

[413] *See* CHR-DOJ-0000109236, **[BEGIN HIGHLY CONF. INFO.]**

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[414] *See* Time Warner Cable Response to Information Request at Ex. 41.01 **[BEGIN HIGHLY CONF. INFO.]**

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[415] Drew Fitzgerald and Shalini Ramachandran, *Netflix-Traffic Feud Leads to Video Slowdown*, Wall St. J. (Feb. 18, 2014) (citing Netflix data, "Over the past three months, starting around the time Netflix made super-high definition video available to all its subscribers, the average speeds of the company's prime-time video streams have slowed for Verizon, AT&T, TWC, and Comcast subscribers. . ."), http://on.wsj.com/1m7zyP2; Press Release, Netflix, *Netflix* (continued….)

129. The transaction will empower New Charter to force OVDs that are currently able to reach Charter and Bright House subscribers via transit to directly bargain with New Charter for access to those subscribers.[416] On balance, we find that the transaction will force OVDs to come to New Charter for access to its subscribers sooner in the development of their businesses, and will increase the fees they are asked to pay for that access. This could retard upstart OVDs that subscribers might prefer to New Charter's affiliated video services. Therefore, we find that New Charter would be more likely and better able to use interconnection to interfere with OVD service delivery with the purpose of inhibiting or eliminating OVD competition.

130. We find that the Applicants have failed to demonstrate that New Charter will be sufficiently restrained from using the interconnection market to harm OVDs specifically. In defense of the transaction, Charter points to its previous and current behavior in the interconnection market along with the fact that current Charter has not acted in a hostile manner towards OVDs, and contends that such behavior will continue post-transaction.[417] The Applicants, however, did not provide an analysis showing that market forces or other factors would prevent New Charter from imposing a unilateral price rise on interconnection or from using interconnection to discriminate against OVDs, only arguing that New Charter's management would not do so. Based on the analysis above, we conclude that New Charter would have an increased incentive and ability to use interconnection practices to harm edge providers, and OVDs in particular. We adopt conditions, described below, to guard against the potential public interest harm.

5. Conditions

131. Above we described public interest harms that the transaction is likely to cause in the interconnection market. We note that the Commission has asserted jurisdiction over the BIAS providers' Internet traffic exchange arrangements.[418] We find that this general statutory provision against unjust or unreasonable conduct is not a remedy for the transaction-specific harms presented by the proposed transaction. Accordingly, we impose a limited set of conditions related to interconnection. Specifically, we impose a mandatory interconnection condition that will ensure that a competitive market for access to New Charter's networks exists, and a disclosure condition that will allow the Commission to detect abusive behavior by New Charter.

a. Mandatory Interconnection

132. We determine that a mandatory interconnection condition is necessary to mitigate transaction's interconnection-related harms. By requiring that large backbone providers, CDNs, and edge providers have reliable, unfettered access to New Charter subscribers for seven years, we believe that New Charter will be constrained from harming the public interest in the interconnection market. For the reasons discussed above,[419] we believe this is an appropriate duration to allow the interconnection market to evolve and for edge providers to mature to a position where they will be more resilient to potentially

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ISP Speed Index for August (Sept. 8, 2014) ("In the U.S., interconnection agreements with AT&T, Time Warner Cable, and Verizon resulted in significant increases in Internet speeds for all three providers in August."), https://media.netflix.com/en/company-blog/netflix-isp-speed-index-for-august-1. *See also* Appendix C, Section II.3.a; *2015 Open Internet Order*, 30 FCC Rcd at 5690-92, para. 200-01 (citing and quoting, *inter alia*, comments discussing Netflix and congestion disputes).

[416] *See supra* Section V.C.3.

[417] *See* Application at 19, 23, 50-51; Opposition at 52-56.

[418] *2015 Open Internet Order*, 30 FCC Rcd at 5686-5696, paras. 194-206.

[419] *See supra* Sections V.C.3-V.C.4.

anticompetitive practices. Such a condition ensures that there will be a competitive market for access to New Charter subscribers, preventing the company from acting as a gatekeeper to its subscribers.

133. In July 2015, Charter adopted a new interconnection policy that enables third parties to interconnect with it through settlement-free peering if they can meet certain prerequisites.[420] Charter committed to keeping the policy in place for the new company after the transaction until December 31, 2018.[421] Netflix describes Charter's Peering Policy as "a welcome and significant departure from the efforts of some BIAS providers to collect access tolls on the Internet" and added that this commitment "will promote efficient interconnection with online content providers and with the transit and content delivery services that smaller online content providers rely on to reach their customers."[422] Netflix further states that this "enforceable merger condition will ensure that consumers will receive the fast connection speeds they expect."[423] However, the record shows that Charter secured Netflix's support for the transaction only after it reached an interconnection agreement with it,[424] and Netflix appears to be the only OVD currently able to satisfy all the requirements of the July Peering Policy.

134. Several commenters argued that Charter's original commitment was lacking.[425] We agree, and as result, we adopt a condition that modifies Charter's proposed terms, including less burdensome interconnection location requirements,[426] a clearer augmentation provision,[427] more reasonable trial[428] and suspension[429] policies, and a longer duration.[430] These modifications ensure that a

[420] *See* Charter, *Charter Communication's IP Interconnection Policy and Requirements*, https://www.charter.com/browse/content/peering (last visited Jan. 27, 2016); Charter Jul. 15, 2015, Peering Policy *Ex Parte* Letter at 1.

[421] *See* Charter Jul. 15, 2015, Peering Policy *Ex Parte* Letter at 1.

[422] Letter from Christopher D. Libertelli, Vice President of Global Public Policy for Netflix, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed July 15, 2015) (Netflix Jul. 15, 2015, *Ex Parte* Letter).

[423] *Id.*

[424] The record indicates that **[BEGIN HIGHLY CONF. INFO.]**
[**END HIGHLY CONF. INFO.**]. *See* CHR2-DOJ-00000065506 at 3, **[BEGIN HIGHLY CONF. INFO.]**

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[425] Public Knowledge argues that Charter's Peering Policy, as originally submitted, is not adequate because it protects only "some large Internet companies" and that any such commitment must be "fair to all Internet content companies, not just those large enough to negotiate legal and policy documents with Charter." Public Knowledge Petition et al. at 7. New America's Open Technology Institute expresses similar views, asserting that "The Commission must also ensure that New Charter's interconnection policy benefits not just large edge providers and transit companies, but also smaller startups and future innovation that could compete with established Internet companies." OTI Comments at 5-6.

[426] *See* COMPTEL Petition at 15; Letter from Joseph C. Cavender, Vice President and Assistant General Counsel, Level3, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Oct. 20, 2015) (Level3 *Ex Parte* Letter).

[427] *See* COMPTEL Petition at 15; Level3 *Ex Parte* Letter at 2.

[428] *See* COMPTEL Petition at 14; Level3 *Ex Parte* Letter at 2.

larger proportion of traffic into New Charter's network will be available for settlement-free interconnection, clarify that transit, CDNs, and edge providers may all qualify for settlement-free interconnection, and permit these third-parties greater flexibility to grow their traffic in response to consumer demand.

b. Interconnection Disclosure

135. Because interconnection agreements are frequently subject to non-disclosure agreements, we are concerned that abusive behavior by New Charter could go unnoticed. To ensure that we are able to detect any such behavior, we impose a condition that requires New Charter to file all interconnection agreements with the Commission.[431] This condition will continue for seven years after the transaction closes.[432]

136. We agree with New America's Open Technology Institute that this interconnection disclosure measure is necessary to enable the monitoring of New Charter's future interconnection agreements' terms to determine whether the combined entity is using such agreements to deny or impede access to its networks in ways that limit competition from rival edge providers. In addition to giving the Commission notice if anticompetitive practices arise, the simple act of disclosure may deter such practices in the first place. Therefore, we conclude that requiring New Charter to disclose such agreements to the Commission is necessary to address the increased risk of anticompetitive practices by the combined entity.[433]

c. *Open Internet Order* Related Commitments

137. The Applicants have committed that the merged entity would not block or throttle Internet traffic or engage in paid prioritization and have agreed to submit interconnection disputes to the Commission for resolution on a case by case basis, for three years, regardless of the outcome of the litigation concerning the *2015 Open Internet Order*.[434] The Applicants further state that they would not engage in specific practices, such as usage-based billing, which, according to the Applicants, would also preclude them from implementing zero-rating.[435] As discussed above, we impose a condition to prevent New Charter's use of data caps or usage-based billing. Here, we evaluate the Applicants' pledge to abide by portions of the *2015 Open Internet Order*.

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[429] *See* COMPTEL Petition at 16; Level3 *Ex Parte* Letter at 2.

[430] INCOMPAS notes that because the OVD market is still developing, "it is important that the Commission allow sufficient time for OVD competition to further develop," and recommends that Charter's policy commitment endure for seven years from closing. COMPTEL Petition at 14. *See also* Public Knowledge et al. Petition at 8; DISH Petition at 12-13; Level3 *Ex Parte* Letter; OTI Comments at 5; Letter from Corie Wright, Director of Global Public Policy, Netflix, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Jan. 29, 2016) (stating that "an enforceable and long-standing [interconnection] condition will support growing demand for online services").

[431] *See infra* Appendix B, Section III.3.

[432] For the reasons discussed above, we think this is an appropriate duration to allow edge providers to mature into more resilient participants in the interconnection market. *See supra* para. 132.

[433] We will not release interconnection agreements to the public as part of this condition.

[434] Application at 18-19; Application, Declaration of Christopher L. Winfrey, Chief Financial Officer and Executive Vice President, Charter, transmitted by letter from John L. Flynn, Counsel for Charter, and Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at para. 13 (filed June 25, 2015) (Winfrey Decl.).

[435] Application at 3, 18-19; Winfrey Decl. at 13.

138. New America asserts that the Applicants' promise to adhere to existing law, i.e., to abide by the *2015 Open Internet Order*, should be given no weight as the *Order* is already the "law of the land."[436] DISH observes that the Applicants joined in challenging the *2015 Open Internet Order*, and notes that the Applicants only commit to abide by a subset of Open Internet rules, including the three bright line rules (no blocking, no throttling, no paid prioritization)—but with respect to the no unreasonable interference or disadvantage rule and the general anti-discrimination standard, the Applicants commit only to observing those rules in limited ways related to additional fees, zero rating, data caps, and interconnection.[437]

139. *Discussion.* We agree with commenters that the *2015 Open Internet Order* is the law. The Applicants may not determine with which specific provisions of the *2015 Open Internet Order* they will comply, and with which they will not. Because the *2015 Open Internet Order* already governs the Applicants, we give no weight to the Applicants' commitment to follow it.

D. Competition in Video Distribution

140. In this section, we assess potential harms to competition in the provision of video services to consumers. Specifically, we examine potential harms posed by market concentration and the loss of potential competition among the Applicants. We conclude that the relevant product market for evaluating the record on market concentration is "multichannel video programming service" as offered by all MVPDs and that the relevant geographic market is the local market where consumers select MVPD services. Because the proposed transaction would not result in a meaningful reduction to competition, we find that the proposed transaction would not likely lead to harm to video competition in these markets.

1. Background

141. This transaction involves the combination of three entities that each deliver video programming to consumers. As background for our analysis, we first provide an overview of the video programming distribution industry.

142. Today there are primarily three types of entities that deliver video programming to consumers—broadcast television stations, MVPDs, and OVDs.[438] We focus this industry description on MVPDs and the evolution of OVD services because our analysis of the public interest benefits and harms considers in substantial part the competitive effects of the transaction on those services.[439]

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[436] OTI Comments at 5-6. New America states that the Applicants deserve credit for proposing a voluntary commitment to interconnect on nondiscriminatory terms, but that the duration of the proposed condition is too short to ensure that Charter's nondiscriminatory interconnection practices carry over. Further, New America states that the merged entity should not be allowed to enter into exclusive arrangements that require interconnecting parties to send all of their traffic directly to it, and that interconnecting parties should not be forced into exclusivity arrangements that foreclose their ability to route their traffic through alternate routes. New America believes that the merged entity's interconnection policy should not benefit just large edge providers and transit companies, and that it must also commit to robust transparency.

[437] DISH Petition at 56-57.

[438] *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3256-59, paras. 2-11.

[439] We do not consider broadcast television station competition as part of our analysis of the relevant distribution market herein. The Commission previously determined that broadcast television service is not sufficiently substitutable with MVPD service to constrain potential MVPD price increases and therefore has declined to include broadcasters in the MVPD product market. *Comcast-NBCU Order*, 26 FCC Rcd at 4255-56, para. 40; *News Corp.-Hughes Order*, 19 FCC Rcd at 509, para. 75 (citing *Competition, Rate Deregulation, and the Commission's Policies Relating to the Provision of Cable Television Services*, Report, 5 FCC Rcd 4962, 5003, para. 69 (1990)); *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20607-09, paras. 109-15. We find no evidence in this proceeding to warrant a change to the Commission's previous determination.

143. MVPDs include incumbent cable operators and cable overbuilders,[440] direct broadcast satellite (DBS) providers, such as DIRECTV and DISH, and telephone companies, such as AT&T and Verizon, which provide MVPD services.[441] MVPDs bundle linear programming networks into groups of channels or "tiers"[442] and sell this programming to subscribers, deriving revenues from subscription fees and the sale of advertising time they receive through their carriage agreements.[443] MVPDs primarily deliver video programming services using their own facilities.[444] As part of an MVPD subscription, many MVPDs also offer VOD and TV Everywhere (TVE) services, which allow subscribers to access a selection of programming at a time of their choosing and on a variety of in-home and mobile, Internet-connected devices.[445]

144. Where capable, MVPDs may offer their subscribers such video services as part of a bundle that may include BIAS and voice telephony.[446] Bundled services are one way that MVPDs differentiate themselves from their rivals.[447] These bundles are usually offered at a discount to purchasing the parts of the bundle separately.[448]

145. OVDs offer consumers choices that may either complement the consumer's MVPD services or compete directly with some or all of the video services MVPDs provide.[449] Most OVDs today do not offer a substantial amount of the most popular video programming that is provided by MVPDs, including live sports programming and local broadcast programming. Nor do most OVDs offer bundles of linear programming such as those offered by MVPDs. The number and types of OVDs have grown significantly over the last few years and include programmers, content producers and owners, affiliates of

[440] Overbuilders are generally defined as companies that build additional cable systems "over" one that already exists and offer consumers a competitive alternative. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3265 n.59.

[441] The two largest telephone company MVPDs are Verizon and AT&T, which respectively provide such service as FiOS and U-Verse. *See generally Sixteenth Video Competition Report* at 30 FCC Rcd. at 3263-64, para. 27. In July 2015, the Commission approved the merger of AT&T and DIRECTV. *See AT&T-DIRECTV Order*, 30 FCC Rcd 9131.

[442] Linear television channels are streams of programming that offer video programs on a specific channel at a specific time of day. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3260, para. 18; *see also Promoting Innovation and Competition in the Provision of Multichannel Video Programming Distribution Services*, Notice of Proposed Rulemaking, 29 FCC Rcd 15995 (2014) (*MVPD Definition NPRM*) (seeking comment on a proposal to define "linear video" as a "stream of video programming that is prescheduled by the programmer").

[443] *News Corp. and DIRECTV Group, Inc. and Liberty Media Corp. for Authority to Transfer Control*, Memorandum Opinion and Order, 23 FCC Rcd 3280, para. 30 (2008) (*Liberty Media-DIRECTV Order*). We note that the Commission recently sought comment on the interpretation of the statutory definition of "MVPD" and on whether that definition includes certain Internet-based distributors of video programming. *See MVPD Definition NPRM*, 29 FCC Rcd 15995.

[444] *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3260-61, paras. 19, 21. *See also MVPD Definition NPRM*, 29 FCC Rcd at 15995, para. 20 ("the Commission has previously held that an entity need not own or operate the facilities that it uses to distribute video programming to subscribers in order to qualify as an MVPD.").

[445] *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3260, para. 18, 3294-96, paras. 95-100.

[446] *See id.* at 3288, para. 81, 3297, para. 101.

[447] *See id.*

[448] *See id.* at 3288, para. 81.

[449] *See id.* at 3352-53, para. 215.

online services, retailers, manufacturers, and MVPDs.[450] The types of services that OVDs offer vary widely. For instance, some OVDs (e.g., Netflix, Hulu, and Amazon Prime) offer primarily on-demand programming, which may include some combination of original programming and full length movies and television programs.[451] In addition, several online video services (e.g., Sling TV and Sony Vue) have launched recently that offer access to popular linear networks in a manner similar to MVPD services.[452] Some programmers also have introduced subscription services (e.g., CBS All Access and HBO Now) that offer access to their linear and on-demand programming online without an MVPD subscription.[453] Although the number of consumers who are relying on OVD exclusively (or in conjunction with over-the-air broadcasting) services to access video programming is growing, the majority of consumers still purchase video services from traditional MVPDs.[454]

2. Relevant Markets

146. In order to determine whether New Charter's increased share of MVPD subscribers poses potential for competitive harm, we first define the relevant product and geographic markets. We conclude that the relevant product market for evaluating the record on market concentration is "multichannel video programming service" as offered by all MVPDs.[455] We further conclude that the relevant geographic market is a local market where consumers select MVPD services.

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[450] *See id.* at 3353-63, paras. 216-35. Further, some devices that access OVDs, such as Roku and Amazon Fire TV, function as aggregators. *See id.* at 3362, para. 233. It is difficult at this time to determine to what extent individual OVDs have grown because rating/viewing information is non-standard and limited. *See id.* at 3365-66, para. 242. However, Netflix publicly reports its subscriber and revenue figures for its online streaming service. Netflix reported 43 million streaming subscribers in the United States at the end of 2015. Netflix, Inc., Annual Report (Form 10-K) at 19 (Jan. 28, 2016).

[451] An example of an OVD providing on-demand programming is Hulu, which includes programs that originally aired the previous day on broadcast and MVPD television. *See* Hulu, http://www hulu.com/tv (last visited Mar. 10, 2016). Examples of OVDs offering combinations of original programming and full length movies and television shows are Netflix and Amazon. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3359, para. 229, 3361-62, para. 232; Press Release, Amazon.com, Inc., *Amazon Original Series Alpha House and Betas to Premier This Month* (Nov. 4, 2013), http://phx.corporate-ir net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1871791. In addition, Verizon has launched a free, ad-supported, and "mobile first" video service called Go90 that allows users to watch video content, including some non-broadcast network content, on-demand via a mobile device and over a connection provided by any wireless provider. *See* Press Release, Verizon, *For Your Entertainment Pleasure: We Present go90* (Oct. 1, 2015), http://www.verizon.com/about/news/your-entertainment-pleasure-we-present-go90.

[452] *See, e.g.*, Press Release, DISH Network Corp., *Sling TV to Launch Live, Over-the-Top Service for $20 Per Month; Watch on TVs, Tablets, Computers, Smartphones, Game Consoles* (Jan. 5, 2015), http://about.dish.com/printpdf/1407; Press Release, Sony Corp., *Sony Network Entertainment International and Sony Computer Entertainment Unveil PlayStation™ Vue, A New Cloud-Based TV Service That Pioneers the Future of Television* (Nov. 13, 2014), http://prn.to/1xAWnBB.

[453] *See, e.g.*, Tess Stynes and Keach Hagey, *CBS to Roll Out Internet-Delivered Version of Showtime*, Wall St. J. (May 7, 2015), http://on.wsj.com/1ImMNYp; Joe Flint, *CBS Launches Online Subscription Video Service*, Wall St. J. (Oct. 16, 2014), http://on.wsj.com/1Dfe1fU; Joe Flint and Shalini Ramachandran, *HBO to Launch Stand-Alone Streaming Service*, Wall St. J. (Oct. 15, 2014), http://on.wsj.com/1vvr6AK.

[454] *See, e.g.*, Keach Hagey, *Cord-Cutting Is Accelerating*, Wall St. J. (Dec, 10, 2015), http://on.wsj.com/1NHX58N, (citing a study published by eMarketer and stating that "the total number of households that don't subscribe to pay-TV—a combination of cord-cutters and the far more common "cord-nevers" who had never signed up in the first place—will hit 20.8 million by the end of 2015 . . . or about 17% of U.S. households"). In contrast, there are approximately 101 million MVPD subscribers. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3256, para. 2.

[455] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9159-60, para. 68; *Comcast-NBCU Order*, 26 FCC Rcd at 4255-56, para. 40; *News Corp.-Hughes Order*, 19 FCC Rcd at 501, para. 53.

147. *Positions of the Parties.* Some commenters suggest that because most consumers purchase a bundle of pay-TV and broadband service, the correct product market to examine is the market for the sale of cable services or MVPD services to consumers.[456] Some commenters also suggest that the Commission should examine New Charter's market share on a regional or DMA basis.[457]

148. Commenters argue that the transaction would increase the concentration of the MVPD industry at the local, regional, and national levels.[458] NAB contends that post-transaction, the top four MVPDs would control 79 percent of the nationwide MVPD market (measured in terms of subscribers), and the top three would control two-thirds.[459] Commenters note that, in certain geographic regions, New Charter would hold a greater percentage of MVPD subscribers—and an even higher percentage of cable subscribers—than its nationwide MVPD market share reflects.[460] Commenters also argue that regional consolidation as a result of the transaction would deter entry and competition by overbuilders and lead to higher prices for consumers.[461] In particular, commenters argue that the transaction would exacerbate the existing disparity in programming costs paid by the Applicants versus overbuilders, which would further limit the competitiveness of overbuilders.[462] NAB argues that economic literature supports the contention

[456] Public Knowledge et al. Petition at 9, 11; COMPTEL Petition at 5-6, 8; Hawaiian Telcom Comments at 7-8, 22. Hawaiian Telcom argues that due to the unique characteristics of the Hawaiian market, DBS service and broadcast television should be excluded from any analysis of the product market in Hawaii. Hawaiian Telcom Comments at 7-9. Additionally, as noted above, DISH contends that Sling TV competes as a substitute for traditional pay-TV services. DISH Petition at 15-16; DISH Reply at 12-13; DISH Feb. 26, 2016, *Ex Parte* Letter at 2.

[457] Public Knowledge et al. Petition at 9; NAB Petition at 6-7.

[458] *See, e.g.*, NAB Petition at 5-10; OTI Comments at 1; WGAW Petition at 2-4, 11-12; Public Knowledge et al. Petition at 10-11; COMPTEL Petition at 5-7; DISH Petition at 3; Free Press Petition at 18; Hawaiian Telcom Comments at 10-20. According to NAB, New Charter would "control 40 percent or more of the entire MVPD market in 112 DMAs – or 53 percent of all DMAs in the country." NAB Petition at 6-7.

[459] NAB Petition at 9.

[460] Public Knowledge et al. Petition at 9; NAB Petition at 6-7; Hawaiian Telcom Comments at 2-3, 9.

[461] NAB Petition at 7; Public Knowledge et al. Petition at 17; Petition to Deny of Lincolnville Networks, Inc., Tidewater Telecom, Inc., and Unitel, Inc., MB Docket No. 15-149, at 3-4 (filed Oct. 13, 2015) (Maine Rural Petition); Lincolnville Networks, Inc., Tidewater Telecom, Inc., and Unitel, Inc. Reply, MB Docket No. 15-149, at 4 (filed Nov. 12, 2015) (Maine Rural Reply); Hawaiian Telcom Comments at 17-20; *see also* INCOMPAS Jan. 15, 2016, *Ex Parte* Letter at 1-5 (offering economic analysis to demonstrate that New Charter would be able to use its greater bargaining leverage to negotiate for lower affiliate fees from programmers, which would in turn give it a competitive advantage that would deter entry and expansion by overbuilders). Maine Rural contends that New Charter should provide it with access to cable television transmissions received at its local headends at terms comparable to local New Charter (currently Time Warner Cable). Maine Rural Petition at 10. Maine Rural also submits that New Charter should be required to temporarily waive, for a minimum period of 6 years, "access to the enhancement of local number portability ("LNP") in its provisioning of cable telephone service in the service area of any rural telephone company with which it was not competing prior to January 1, 2014," until the rural telephone company has comparable access to video programming and any USF support or intercarrier compensation issues have been resolved with respect to the rural telephone company. *Id.* Maine Rural contends such a condition is necessary to ensure universal service to rural areas and alleges that the rural carriers in Maine already find it difficult to compete with Time Warner Cable and will find it more difficult after the transaction. *Id.* at 4-5, 9. We find that the harms alleged by Maine Rural are not transaction-specific; for instance, the rural carriers in Maine will face the same level of competition as was the case before the transaction.

[462] Public Knowledge et al. Petition at 17; COMPTEL Petition at 8-13; Cincinnati Bell Comments at 11-14, 21-23; Hawaiian Telcom Comments at 17-20; Stop the Cap Comments at 13-15; Cincinnati Bell Reply at 1-6; Hawaiian Telcom Reply at 4-5; INCOMPAS Reply at 8-12; ITTA Reply at 6-8; NTCA Reply at 4-6; Letter from Markham C. Erickson, Counsel for INCOMPAS, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Dec. 4, 2015) (INCOMPAS Dec. 4, 2015, *Ex Parte* Letter); Letter from Jill Canfield, Vice President – Legal and (continued….)

that clustering leads to higher prices for consumers.[463] Commenters also argue that New Charter could use its broadband profits to subsidize its video offerings and thereby undercut video competitors, including OVDs, on price.[464]

149. In addition, DISH argues that the transaction would eliminate potential competition from the Applicants building out in each other's local territories, particularly in large markets where they serve adjacent geographic areas and such overbuilding would be more likely to occur.[465] Finally, commenters allege that the transaction would eliminate the possibility of competitive entry by one or more of the firms into the others' markets by offering virtual services outside their physical footprints.[466]

150. The Applicants argue that, consistent with Commission precedent, the relevant product market for analysis is "multichannel video programming service as offered by all MVPDs" and highlight, in particular, video services offered by Verizon, AT&T, and Google as competitive services that have successfully entered the market in recent years.[467] In addition, the Applicants contend that the market for the sale of MVPD services to consumers is local in nature.[468] The Applicants further argue that DMAs are not an appropriate geographic market because consumers choose among services available in their homes, not among services available across town.[469] Moreover, the Applicants contend that because they serve distinct geographic areas, the transaction would not result in a loss of competition or consumer choice for MVPD services.[470] The Applicants also argue that the video distribution market is competitive

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Industry and Assistant General Counsel, NTCA, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Jan. 29, 2016) (NTCA Jan. 29, 2016, *Ex Parte* Letter); Letter from Stop Mega Cable Coalition to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 8 (filed Feb. 24, 2016) (Stop Mega Cable Coalition Feb. 24, 2016, *Ex Parte* Letter). INCOMPAS suggests the Commission should explore a video programming purchasing cooperative as an "alternative, non-merger means of achieving video programming purchasing efficiencies," while at the same time mitigating "the harm to future broadband competition by allowing potential broadband entrants to join and narrow the programming cost disparity between Applicants and smaller, competitive broadband service providers." INCOMPAS Reply at 10. By contrast, Free Press contends that any programming cost savings from the transaction would be "miniscule." Free Press Petition at 23.

[463] NAB Petition at 7 (citing Philip Reny and Michael Williams, *The Deterrent Effect of Cable System Clustering on Overbuilders*, 35 Economics Bulletin 519 (2015)); Hal Singer, *Does Clustering by Incumbent Cable MSOs Deter Entry by Overbuilders?* (2003), http://ssrn.com/abstract=403720; National Association of Broadcasters Reply at 4-5 (NAB Reply).

[464] Free Press Petition at 35-39; WGAW Petition at 24-26; Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter at 9; DISH Feb. 26, 2016, *Ex Parte* Letter at 3.

[465] DISH Petition at 4, 32, 58-63; DISH Dec. 2, 2015, *Ex Parte* Letter at 2; *see also* Free Press Reply at 19. DISH recognizes that overbuilding between cable operators has been limited in the past but argues that the increasing opportunity to secure BIAS revenues has made the economic case for overbuilding more attractive today. DISH Petition at 61.

[466] WGAW Petition at 36; DISH Petition at 47-49, 54, 63; Free Press Reply at 18-19; WGAW Reply at 21-22; DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 24.

[467] Opposition at 43-44 (citing *AT&T-DIRECTV Order*, 30 FCC Rcd at 9159, para. 68).

[468] Application at 42; Opposition at 42.

[469] Opposition at 42. Moreover, the Applicants argue that even under a DMA-level analysis, the transaction poses no harm because among the top 20 DMAs, New Charter would be the largest MVPD in four markets (the same four in which Time Warner Cable and Bright House are the largest MVPDs today), and the transaction would lead to increased concentration in six DMAs, five of which are DMAs where New Charter would not be among the two largest MVPDs following the transaction. *Id.* at 42-43.

[470] Application at 42-43; Scott Morton Decl. at para. 5; Opposition at 52; *see also* Free State Comments at 16-17; Information Technology& Innovation Foundation Comments at 2-3 (ITIF Comments). The Applicants

(continued….)

and dynamic, and would remain so following the transaction, noting that they face competition in local markets from DBS providers and overbuilders.[471] The Applicants contend that, contrary to Free Press's assertions, New Charter would not be able to use its broadband profits to cross-subsidize its video service and thereby undercut competitors on price.[472] In particular, the Applicants argue that such a strategy would be unlikely to lead to subscriber gains given the competitiveness of the video distribution market, and that doing so would reduce New Charter's ability to reinvest in broadband innovation to compete in the broadband market.[473] Moreover, they contend that the greater reach and density of New Charter's cable systems would produce public interest benefits, including an improved ability to compete for and serve enterprise customers and regional and national advertisers, as well as the improved ability for Charter to market itself.[474]

151. The Applicants also dispute assertions that New Charter's programming cost savings would harm other video distributors.[475] According to the Applicants, no economic theory supports the argument that some competitors' input prices should be kept artificially high to aid other would-be competitors.[476] In addition, they argue that commenters' allegations rest on the flawed assumption that a provider's decision about whether or not to enter a market depends upon the incumbent provider's costs.[477] The Applicants also argue that to the extent there is a problem with volume discounts, it is an industrywide issue and is therefore beyond the scope of this proceeding.[478] Moreover, the Applicants maintain that given increases in programming costs in recent years, New Charter's ability to lower its programming rates to the level of Time Warner Cable's should be viewed as a consumer benefit.[479]

152. *Discussion.* We first consider the relevant product and geographic market definitions for video distribution in the proposed transaction. We consider the relevant product market consistent with Commission precedent and the analytical framework and principles outlined by the *2010 DOJ/FTC Horizontal Merger Guidelines*. Consistent with Commission findings in prior transactions, we conclude

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acknowledge that two or more Applicants have a residential broadband subscriber in the same census block in 617 census blocks, but argue that this data likely overstates the extent of any actual overlap, and that the overlaps identified are smaller than overlaps the Commission has deemed unproblematic in the past. Application at 42-43; Opposition at 52.

[471] Application at 59-60.

[472] Opposition at 57.

[473] *Id.*

[474] Application at 33-40; Opposition at 43, 52, 78.

[475] Opposition at 58-61; *see* Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 3 (filed Jan. 29, 2016) (Charter Jan. 29, 2016, *Ex Parte* Letter), Attach., Surreply Declaration of Michael L. Katz, at paras. 20-33 (Katz Surreply Decl.); Letter from Samuel L. Feder, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Feb. 9, 2016) (Charter Feb. 9, 2016, *Ex Parte* Letter). For a discussion of allegations that lower programming payments by New Charter would reduce investment by programmers, *see* Section V.G.5.b, *infra*.

[476] Opposition at 59. The Applicants claims that lower programming costs for New Charter would not lead to higher programming costs for other distributors are discussed in Section V.G.6, *infra*.

[477] Charter Feb. 9, 2016, *Ex Parte* Letter at 2 (noting that "Google Fiber has recently entered markets where there was already a larger incumbent MVPD whose relative size would have given it an advantage in terms of programming costs").

[478] Opposition at 61.

[479] *Id.* at 25-28, 58-59; Charter Feb. 9, 2016, *Ex Parte* Letter at 2. The Applicants claims regarding the nature and extent of the transaction-specific benefits are discussed in Section VI.B below.

that the relevant product market for evaluating the record on market concentration is "multichannel video programming service" as offered by all MVPDs.[480] In addition, consistent with the prior Commission decisions, we find that, for most consumers today, OVD services are not substitutes for MVPD services.[481] Rather, as we note in our description of current industry conditions discussed above,[482] OVDs typically offer consumers choices that may either complement their MVPD services or compete with some portion of the services MVPDs offer, such as VOD. Given the development of additional and new OVD services and the proliferation of new technologies and devices that allow consumers to view video programming sold by OVDs on their computers, phones, and televisions, we acknowledge that OVDs have the potential to become substitutes for MVPD services with a market presence that is sufficient to counter an increase in price or decrease in quality by a hypothetical monopolist.[483] Despite the increased number of OVDs and increased consumer use of OVD services, however, we do not have evidence on the record that any OVD would, in the near term, discipline a hypothetical monopolist. Even assuming that OVDs such as Sling TV and Sony Vue are current market competitors, news reports of their current estimated subscribership imply that they are today niche competitors whose inclusion in the market definition would not materially alter the Applicants' shares or our competitive effects analysis.[484]

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[480] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9159-60, para. 68; *Comcast-NBCU Order*, 26 FCC Rcd at 4255-56, para. 40; *News Corp.-Hughes Order*, 19 FCC Rcd at 501, para. 53. We do not reach a determination as to whether, as Hawaiian Telcom suggests, DBS providers should be excluded from analysis of the MVPD market in Hawaii. *See* Hawaiian Telcom Comments at 7-9. We find that, regardless of whether DBS providers are included or excluded, the transaction would not result in any change in the number, or market share, of MVPDs serving the Hawaiian market because only one of the Applicants (Time Warner Cable) serves that market today.

[481] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9159-60, para. 68; *Comcast-NBCU Order*, 26 FCC Rcd at 4269, para. 79; *see also United States v. Microsoft*, 253 F.3d 34, 52-5454 (D.C. Cir. 2001) (excluding "middleware" software from the definition of the relevant product market because of its present non-interchangeability with Windows, notwithstanding its long-term future potential). In the *Comcast-NBCU Order*, the Commission found that instances of consumers replacing MVPD services with OVD services were "relatively infrequent." *Comcast-NBCU Order*, 26 FCC Rcd at 4269, para. 79. Consumers may choose to cancel their MVPD service ("cord cutters"), reduce their MVPD spending ("cord shavers"), or forego subscribing to an MVPD service in the first place ("cord nevers"). While observers differ on the degree to which these behaviors are occurring today, estimates continue to be relatively small. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3395-97, paras. 301-04. The vast majority of consumers who watch OVD video programming also subscribe to an MVPD service, indicating that many consumers view the services as complements, rather than substitutes. *Sixteenth Video Competition Report*, 30 FCC Rcd at 3289, para. 84, 3352-53, para. 215; *see also Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Fifteenth Report, 28 FCC Rcd 10496, 10557-58, para. 132 (2013) (*Fifteenth Video Competition Report*) (noting that Netflix has reported that the overwhelming majority of its subscribers also subscribe to an MVPD). Notably, however, some recently launched linear online video services may be emerging as closer substitutes for MVPD services. *See, e.g.*, DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 17 (noting that "[v]ery few *Sling TV* subscribers also subscribe to a linear MVPD service").

[482] *See supra* paras. 142-145.

[483] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9159-60, para. 68. We note further that the Commission has sought comment on the interpretation of the statutory definition of "MVPD" and on whether that definition includes certain Internet-based distributors of video programming. *See MVPD Definition NPRM*, 29 FCC Rcd 15995. As the Commission has stated, however, that proceeding will not define or opine on which services or providers are in the same relevant product market as a service designated as an MVPD. *Id.* at 16002, para. 15 n.33.

[484] For instance, estimates suggest that Sling TV subscribers currently number in the hundreds of thousands, and Sony Vue is available in New York, Los Angeles, Chicago, Philadelphia, Dallas, San Francisco and Miami. *See* Jeff Baumgartner, *Sling TV to Reach 2M Subs This Year: Analyst*, Multichannel News (Jan. 15, 2016), http://www.multichannel.com/news/content/sling-tv-reach-2m-subs-year-analyst/396570; Press Release, PlayStation, *PlayStation Vue Live TV Service Expands* (Nov. 12, 2015), http://prn.to/1SgW9Ld.

Therefore, as we analyze the transaction's competitive effects, we consider any potential competitive harms that may arise from the transaction that would delay or minimize OVD entry into the market.

153. In addition to the relevant product market discussed above, we also consider the relevant geographic market consistent with Commission precedent and the analytical framework and principles outlined in the *2010 DOJ/FTC Horizontal Merger Guidelines*.[485] In previous transactions, the Commission defined the relevant market as local.[486] Consistent with past practice and the record before us, for the purposes of analyzing market concentration arguments raised in the record, we define the relevant geographic market as a local market in which consumers select MVPD services. Consumers make decisions based on the MVPD services available to them at their residences, as they are unlikely to move in order to change providers.[487] In previous transactions involving MVPDs, the Commission defined the relevant geographic market for MVPD services as the franchise area of the local cable operator, and we do so again here.[488] Moreover, our analysis and the record evidence confirm that the Applicants do not serve entire DMAs and indeed face different competitors in different parts of any given DMA.[489] Therefore, a DMA is not the ideal geographic area for analyzing changes in concentration that result from this transaction.

3. Potential Effects

154. Using the market definitions described above, we evaluate the potential competitive effects in video distribution from the transaction. We find that the transaction is unlikely to result in a loss of competition or potential competition in the distribution of MVPD services to consumers. We find that, in the overwhelming majority of franchise areas, the Applicants today do not compete head-to-head for video subscribers.[490] In addition, we find that any overlap between the Applicants' footprints is not significant enough to appreciably affect concentration. Most consumers would not lose a video competitor as a direct result of the transaction in any relevant geographic area, nor would the transactions significantly increase the concentration of video subscription services in any local market. Moreover, even if we consider consumers' options for purchasing bundles that include both video and broadband services, we find no significant reduction in competition or consumer choice as a result of the transaction.

155. We also do not find that the transaction would make overbuilding by the Applicants into another MVPD's territories less likely. We note that despite the current appeal of expanding broadband revenues, the Applicants have not overbuilt each other to date. Additionally, we find no evidence in the record that the Applicants have contemplated overbuilding into another incumbent MVPD's territory, nor

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[485] *See, e.g., AT&T-DIRECTV Order*, 30 FCC Rcd at 9160, para. 69; *Comcast-NBCU Order*, 26 FCC Rcd at 4256-57, para. 42; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20610, para. 119.

[486] *See, e.g., AT&T-DIRECTV Order*, 30 FCC Rcd at 9160, para. 69; *Comcast-NBCU Order*, 26 FCC Rcd at 4256-57, para. 42; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20610, para. 119.

[487] *See, e.g., AT&T-DIRECTV Order*, 30 FCC Rcd at 9161-62, para. 71; *Comcast-NBCU Order*, 26 FCC Rcd at 4256-57, para. 42; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20610, para. 119.

[488] *See, e.g., Comcast-NBCU Order*, 26 FCC Rcd at 4256-57, para. 42; *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3281, para. 32; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20610, para. 119.

[489] *See* Charter Response to Information Request, Exhibits 107(b)-1, 107(b)-2; Time Warner Cable Response to Information Request, Exhibits 80b-01, 80b-02. For example, both Charter and Time Warner Cable today operate in the Los Angeles DMA, but serve distinct and separate geographic areas within that DMA. Accordingly, consumers in Los Angeles are unable to switch between Charter and Time Warner Cable.

[490] According to the Applicants, two or more Applicants have a residential broadband subscriber in the same census block in 617 census blocks, or "significantly less than 1% of the census blocks that make up the merged company's footprint." *See* Application at 42; Opposition at 52. This represents well under 0.01 percent of all census blocks in the United States.

is there evidence that they have any plans to enter into each other's service territories.

156. Several commenters assert that, if they did not merge, the Applicants could compete head-to-head with other cable operators through over-the-top entry outside their current cable footprints.[491] There are conflicting allegations in the record about Charter's plans with regard to expanding its online video service offerings. Charter states that it has not and does not have any plans to offer an OVD service.[492] By contrast, DISH asserts that "Charter has already quietly launched an OTT service targeted toward its broadband-only customers" and that the transaction "will only stoke its interest in this service, and therefore its incentive to thwart or destroy competing OTT services."[493] DISH further contends that documents show Charter has **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[494] DISH claims that Charter executives **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[495] Charter responds that "DISH misunderstands the documents it cites."[496] According to Charter, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[497] Charter claims that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[498] Moreover, Charter contends that documents describing Charter's attempts **[BEGIN HIGHLY CONF. INFO.]**

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157. We find speculative the arguments that the transaction would materially decrease the likelihood that the Applicants would launch an out-of-footprint OVD service. In fact, some evidence cited by DISH may suggest that New Charter's increased scale following the transaction could improve its ability to acquire the programming rights necessary to launch a non-facilities-based online video service.[500] There is some evidence that **[BEGIN HIGHLY CONF. INFO.]**

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[491] *See* WGAW Petition at 36; DISH Petition at 47-49, 54, 63; Free Press Reply at 18-19; WGAW Reply at 21-22; DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 24.

[492] *See* Charter Jan. 14, 2016, *Ex Parte* Letter at 7.

[493] DISH Dec. 7, 2015, *Ex Parte* Letter at 5.

[494] DISH Dec. 21, 2015, *Ex Parte* Letter at 5-6; *see also* DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 24.

[495] DISH Dec. 21, 2015, *Ex Parte* Letter at 6.

[496] Charter Jan. 14, 2016, *Ex Parte* Letter at 7.

[497] *Id.* DISH claims that Charter's Spectrum Guide App, such as offered on Roku devices, meets the common definition of "an OTT content delivery platform" and is therefore properly characterized by DISH as such. DISH Jan. 27, 2016, *Ex Parte* Letter at 11.

[498] Charter Jan. 14, 2016, *Ex Parte* Letter at 7.

[499] *Id.*

[500] *See* DISH Dec. 7, 2015, *Ex Parte* Letter at 5 (citing CHR2-DOJ-00000066980 at 7, **[BEGIN HIGHLY CONF. INFO.]**

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HIGHLY CONF. INFO.].[501] In October 2015, Charter announced the release of a Spectrum Guide Application on Roku devices that "provides Charter customers an additional way to view the content they have purchased with their cable TV service."[502] In addition, Charter is "testing in certain markets a cable TV product—Spectrum Stream and Spectrum Stream Plus—utilizing a Roku device that receives IP transmissions over Charter's private network."[503] There is also some evidence that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[504] We have found no evidence that the transaction would affect these plans. In particular, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[505] Moreover, DISH has launched a nationwide online video service; AT&T has announced plans to launch its OVD by year's end;[506] and several other MVPDs and programmers

[501] *See, e.g.*, Time Warner Cable Response to Information Request at 10, 56 **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**, Exhibit 3(d)-02 at 1, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; Time Warner Cable Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Nov. 4, 2015) (Time Warner Cable Nov. 4, 2015, Updated Response to Information Request) **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[502] Charter Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 3, 2015) (Charter Nov. 3, 2015, Updated Response to Information Request); Charter Response to Information Request at 140, 317-18.

[503] Charter Nov 3, 2015, Updated Response to Information Request at 2. Similarly, in late 2015, Time Warner Cable began testing a video offering that allows Time Warner Cable BIAS customers to subscribe to Time Warner Cable TV service delivered via a Roku box. *See* Jeff Baumgartner, *TWC Launches Roku Trial in NYC*, Multichannel News (Nov. 9, 2015), http://www.multichannel.com/news/content/twc-launches-roku-trial-nyc/395196.

[504] *See, e.g.*, Charter Response to Information Request at 96-97 **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**, Exhibit 12-22 at 4-5, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**, Exhibit 23-8 at 5, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[505] *See, e.g.*, CHR2-FCC-00000073505 at 9-10, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[506] Press Release, AT&T, *AT&T To Launch Three New Ways to Access & Stream DIRECTV Video Content Later This Year* (Mar. 1, 2016), http://about.att.com/story/three_new_ways_to_access_and_stream_directv_video_content.html.

have launched video services that are available without a traditional cable television subscription.[507] There is no evidence in the record that New Charter would be better able to withstand the competitive pressure to launch its own online video service than Charter is today. We find that, regardless of New Charter's online video plans, there would still be several video options, including DBS and OVD services, remaining in the markets served by the Applicants post-transaction.

158. The record does not indicate that clustering would remove a competitor or inhibit competition in any geographic market at issue in this transaction. NAB highlights the possibility that clustering may inhibit competition in particular geographic markets and has cited studies which support its claims.[508] The Applicants, however, already operate large clusters in many of their service areas. We do not believe that additional clustering as a result of the transaction would significantly increase barriers to entry or reduce the competitive viability of overbuilders. For instance, even when examined at the DMA or metropolitan level, the transaction would not substantially increase the concentration of MVPD subscribers in any market.[509] In addition, we find that Charter's use of nationwide pricing alleviates concerns that New Charter would engage in anticompetitive behavior with regard to pricing and reject requests from commenters to impose pricing conditions on New Charter.[510]

159. For the reasons stated above, we conclude that the transaction is unlikely to substantially lessen competition in the market for the provision of video services to consumers either between the Applicants or between the Applicants and other incumbent video competitors. Although we find that the Applicants do not compete head-to-head for MVPD subscribers in local markets, this does not mean that there is no possible theory of harm based on New Charter having a larger nationwide share of MVPD subscribers. The primary input for MVPD services is video programming.[511] Accordingly, we discuss elsewhere in this Order arguments that the combination of Charter, Time Warner Cable, and Bright House has the potential to increase the combined entity's bargaining leverage or monopsony power as an upstream buyer of programming, which New Charter then may be able to use to harm competition in downstream video distribution.[512]

E. Competitors' Access to Programming

160. Because Time Warner Cable and Bright House each own both video programming and cable distribution networks, we examine whether New Charter would have an increased incentive or ability to either temporarily or permanently foreclose New Charter's video distribution rivals from access

[507] *See, e.g.*, Shalini Ramachandran and Lisa Beilfuss, *Comcast Launches Streaming Service for Cord-Cutting Customers*, Wall St. J. (July 13, 2015), http://on.wsj.com/1K0VyKy; Lisa Beilfuss, *HBO Now Is Available to Apple, Cablevision Users*, Wall St. J. (Apr. 7, 2015), http://on.wsj.com/1Dg082V.

[508] *See* NAB Petition at 7 (citing Philip Reny and Michael Williams, *The Deterrent Effect of Cable System Clustering on Overbuilders*, 35 Economics Bulletin 519 (2015)); Hal Singer, *Does Clustering by Incumbent Cable MSOs Deter Entry by Overbuilders?* (2003), http://ssrn.com/abstract=403720); NAB Reply at 4-5.

[509] *See* Charter Nov. 3, 2015, Updated Response to Information Request at 38-39. In total, there are 41 DMAs in which the three Applicants overlap. Among these 41 DMAs, there are ten in which the subscriber share gain, defined as the difference between New Charter's share and the maximum of the pre-transaction shares among the three Applicants, is greater than five percent, with none exceeding approximately 15 percent. *See* Appendix C, Section III.A., Table 25. Specifically, in the Los Angeles DMA, Time Warner Cable currently serves approximately 29.0 percent of MVPD subscribers, and adding Charter's subscribers would raise the percentage to 34.6 percent. *See* Appendix C, Section III.A., Table 25; Charter Nov. 3, 2015, Updated Response to Information Request at 38-39.

[510] *See* Cincinnati Bell Comments at 18-19 (urging the Commission to require New Charter to price uniformly throughout a DMA).

[511] *See infra* Section V.E.1.

[512] *See infra* Section V.F.

to, or raise rivals' prices for, the video programming in which it would have an interest. The transaction would give New Charter a significantly larger footprint and increase its number of subscribers, giving it greater market power to engage in such exclusionary strategies. We find that the Commission's existing program access rules[513] are adequate to address any potential harms to competition posed by the vertical combination of programming and distribution assets specific to this transaction.

1. Background

161. Firms that own video programming networks typically both produce their own programming and acquire programming others produce. They package and sell this programming as a network or networks to MVPDs and OVDs for distribution to consumers.[514] In turn, to provide multichannel video services to subscribers, MVPDs and OVDs combine programming into bundles for distribution on either their cable, satellite, fiber, or wireless networks, or in the case of certain OVDs, on the public Internet.[515] Programming typically distributed on these systems can be offered by over-the-air broadcast stations, national program networks—including news, entertainment, and special interest networks—regional sports networks (RSNs), and various non-sports regional networks.[516]

162. Typically, programmers are compensated in part through license fees MVPDs and OVDs pay. License fees vary based on the value of the programming, the number of subscribers the distributor serves, and the programming tier on which the programming is placed, with a higher number of subscribers generally resulting in lower per-subscriber programming license fees.[517] Programmers also usually earn revenues from advertising sales.[518]

163. Video programming varies significantly in terms of its characteristics, focus, and subject matter.[519] The Commission has found previously that neither distributors nor their subscribers view networks with similar programming as perfect substitutes for one other.[520] The Commission thus has

[513] 47 CFR §§ 76.1001 et seq.

[514] *Applications for Consent to the Transfer of Control of Licenses from Comcast Corporation and AT&T Corp., Transferors, to AT&T Comcast Corporation, Transferee*, Memorandum Opinion and Order, 17 FCC Rcd 23246, 23258, para. 34 (2002) (*Comcast-AT&T Order*).

[515] *See, e.g., Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3281, para. 33; *Adelphia-TWC Order*, 21 FCC Rcd at 8236, para. 65; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20653, para. 245; *Comcast-NBCU Order*, 26 FCC Rcd at 4262-63, paras. 60, 63.

[516] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 35; *Adelphia-TWC Order*, 21 FCC Rcd at 8236, para. 66; *News Corp.-Hughes Order*, 19 FCC Rcd at 504, para. 59. Entravision urges the Commission to define a separate submarket for Latino focused programming. Petition to Deny of Entravision Communication Corp., MB Docket No. 15-149, at 3-6 (filed Oct. 13, 2015) (Entravision Petition), Attach., Economic Analysis of the Effects of the Proposed Merger of Charter Communications, Time Warner Cable, and Bright House Networks on Program Providers Serving the Latino Market, para. 19 (Kwoka Analysis). The record before us in this transaction provides insufficient evidence to define a Latino programming market. *See infra* Section V.G.5.b(ii).

[517] *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20654 para. 249 (citing *Implementation of Section 11 of the Cable Television Consumer Protection and Competition Act of 1992*, Further Notice of Proposed Rulemaking, 16 FCC Rcd 17312, 17322 paras. 10-11 (2001)); *News Corp.-Hughes Order*, 19 FCC Rcd at 502 para. 55.

[518] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3281, para. 34; *Adelphia-TWC Order*, 21 FCC Rcd at 8236, para. 65; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20654, para. 249.

[519] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 35; *Adelphia-TWC Order*, 19 FCC Rcd at 8236, para. 66; *News Corp.-Hughes Order*, 9 FCC Rcd at 504, para. 59.

[520] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 35; *News Corp.-Hughes Order*, 21 FCC Rcd at 504, para. 59.

concluded that markets that include video programming are differentiated product markets.[521] In the past, the Commission has also found that at least a portion of video programming subscribers consider certain types of programming as so vital or desirable that they are willing to switch to a different distributor in order to gain or retain access to that programming.[522] The Commission has recognized that such "marquee" or "must have" programming can include "a broad portfolio of national cable programming in addition to RSN and local broadcast programming."[523]

164. The Commission has found in previous transactions that the area in which the program owner licenses its programming reasonably defines the relevant geographic market for video programming.[524] For national programming networks, therefore, the relevant geographic market is national in scope.[525] Such networks are generally licensed to distributors nationwide, and, in some cases, are licensed internationally.[526] In contrast, with respect to RSNs and other regional networks, the Commission has concluded in previous transactions that the relevant geographic market is regional.[527] In general, contracts between sports teams and RSNs limit the relevant geographic market to the "distribution footprint" the owner of the programming establishes.[528]

2. Program Access

165. Congress enacted the program access regime to address concerns that the vertical integration of cable systems with video programming assets creates or increases a possible incentive and ability for cable operators to favor their own, affiliated companies over unaffiliated MVPDs in the terms and conditions of licensing their affiliated programming.[529] Thus, as Congress directed, the program access rules the Commission adopted require vertically integrated cable operators, and, more recently, common carrier video distributors, to offer competing MVPDs access to their affiliated programming on non-discriminatory rates, terms, and conditions, and prohibit such distributors from discriminating among MVPDs in the sale of their programming.[530] MVPDs seeking enforcement of the program access

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[521] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 35; *Adelphia-TWC Order*, 21 FCC Rcd at 8236, para. 66; *News Corp.-Hughes Order*, 19 FCC Rcd at 504, para. 59.

[522] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 35; *Adelphia-TWC Order*, 21 FCC Rcd at 8236-37, para. 66; *see also Adelphia-TWC Order*, 21 FCC Rcd at 8270-71, para. 46.

[523] *Comcast-NBCU Order*, 26 FCC Rcd at 4260, para. 52.

[524] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 37; *Adelphia-TWC Order*, 21 FCC Rcd 8237, para. 68; *News Corp.-Hughes Order*, 19 FCC Rcd at 506, para. 64.

[525] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 37; *Adelphia-TWC Order*, 21 FCC Rcd 8237, para. 68; *News Corp.-Hughes Order*, 19 FCC Rcd at 506, para. 66.

[526] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282 para. 37; *Adelphia-TWC Order*, 21 FCC Rcd 8237, para. 68; *News Corp.-Hughes Order*, 19 FCC Rcd at 506, para. 66.

[527] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 37; *Adelphia-TWC Order*, 21 FCC Rcd 8237, para. 68; *News Corp.-Hughes Order*, 19 FCC Rcd at 506, para. 66.

[528] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3282, para. 37; *Adelphia-TWC Order*, 21 FCC Rcd 8237, para. 68; *News Corp.-Hughes Order*, 19 FCC Rcd at 506, para. 66. In the case of broadcast television programming, the Commission has found DMAs to define the relevant geographic market for each individual broadcast station. *See Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3283, para. 37 & n.116; *News Corp.-Hughes Order*, 19 FCC Rcd at 506, para. 65.

[529] *See* 1992 Cable Act § 2(a) (5), 47 U.S.C. § 521 (2012).

[530] 47 CFR §§ 76.1001-02; 76.1004. *See also Revision of the Commission's Program Access Rules*, Report and Order, MB Docket Nos. 12-68, 07-18, 05-192, Further Notice of Proposed Rulemaking, MB Docket No. 12-68, Order on Reconsideration in MB Docket No. 07-29, 27 FCC Rcd 12605 (2012) (*2012 Program Access Order*); *Review of the Commission's Program Access Rules and Examination of Programming Tying Arrangements*, First (continued….)

protections may initiate an adjudicatory proceeding with the Commission by filing a program access complaint.[531] In reviewing previous mergers involving the vertical integration of programming and distribution interests, the Commission has at times found increased incentive and ability to withhold or raise prices of certain types of programming, and imposed conditions to augment the program access rules. For example, where a cable operator also controlled programming such as an RSN or broadcast network, the Commission has imposed an obligation to engage in a baseball-style arbitration proceeding if initiated by an aggrieved MVPD.[532]

3. RSNs and Other Sports Programming

166. Presently, Time Warner Cable owns two RSNs—Time Warner Cable SportsNet and Time Warner Cable Deportes—that carry Los Angeles Lakers basketball games and other regional programming.[533] The Applicants state that Time Warner Cable also manages the distribution of SportsNet LA, which carries Los Angeles Dodgers games, and provides affiliate sales, advertising sales, and production and technical services to SportsNet LA.[534] According to the Applicants, Time Warner Cable also possesses a 26.83 percent minority interest in SportsNet NY, but does not control its management, strategic direction, or distribution rights.[535] In addition, Time Warner Cable owns 15 other RSNs, of which 13 include Division I college sports programming, while two carry some Spanish-language Major League Baseball (MLB) games.[536] Time Warner Cable also owns two local sports networks, OC16 and

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Report and Order, 25 FCC Rcd 746 (2010) (*2010 Program Access Order*), *aff'd in part and vacated in part sub nom. Cablevision Systems Corp. et al. v. FCC*, 649 F.3d 695 (D.C. Cir. 2011).

[531] 47 CFR § 76.1003. *See also* 47 U.S.C. § 548(d); *2012 Program Access Order*, 27 FCC Rcd at 12640-48, paras. 52-64; *2010 Program Access Order*, 25 FCC Rcd at 777-87, paras. 46-57. The Commission also has allowed rules banning exclusive contracts for satellite cable programming or satellite broadcast programming between any cable operator and any cable-affiliated programming vendor in areas served by a cable operator to expire. *See 2012 Program Access Order*, 27 FCC Rcd at 12607, para. 1; *see also* 47 U.S.C. § 548(c)(2)(D).

[532] *See, e.g.*, *Comcast-NBCU Order*, 26 FCC Rcd at 4241, 4260, 4262, 4358, 4364-70, paras. 4, 54, App. A Sections II, VII, and VIII; *News Corp.-Hughes Order*, 19 FCC Rcd at 514, 552-555, 572-575, 631-632, paras. 87, 173-177, 220-223, Apps. B and C; *Adelphia Order*, 21 FCC Rcd at 8207, 8274, 8275-76, paras. 5, 156, 159-161, App. B, Sections B.2-3. In reviewing the Comcast-NBCU merger, the Commission broadened the arbitration condition to apply to Comcast-NBCU's broad portfolio of national programming, limited discovery in arbitration, and adopted a standstill condition, permitting an MVPD to continue carrying the programming during arbitration of the dispute. *Comcast-NBCU Order*, 26 FCC Rcd at 4260, 4358, 4365, 4368, paras. 51-54, App. A, Sections II, VII.A.5, and D.3. The Commission also allowed MVPDs to demand standalone final offers for Comcast-NBCU's broadcast, RSN and cable programming or any bundle of programming made available to another MVPD. *Id.* at 4262, 4364, para. 57, App. A. Section VII A.2.

[533] Application at 11; Time Warner Cable Response to Information Request at 30, 34, 37, 40, 161.

[534] Application at 11; Time Warner Cable Response to Information Request at 33, 162. The Applicants state that Time Warner Cable does not possess an ownership interest in SportsNet LA. Application at n.18; Time Warner Cable Response to Information Request at 33, 162.

[535] Application at 11; Time Warner Cable Response to Information Request at 49-50. Thus, we conclude that New Charter would not control licensing of SportsNet NY and note that, despite this significant ownership interest, no commenters specifically allege that New Charter would withhold or raise prices of SportsNet NY. The significance of attributable interests in programming is discussed at Section V.E.4.a, *infra.*

[536] Time Warner Cable Response to Information Request at 30-32, 34, 37, 40, 161. The additional RSNs are: (1) OC Sports (Hawaii); (2) Time Warner Cable Sports Channel Kansas City; (3-6) Time Warner Cable Sports Channels in Albany, Buffalo, Rochester, and Syracuse NY; (7) Time Warner Cable Sports Channel Nebraska; (8) Time Warner Cable Sports Channel Raleigh, Charlotte, Greensboro, and Wilmington, NC and Columbia, Florence and Myrtle Beach, SC; (9-11) Time Warner Cable Sports Channels in Cincinnati/Dayton, Cleveland/Akron, and Columbus/Dayton, Ohio; (12) Time Warner Cable Sports Channel North Dallas, El Paso, South-Austin, San
(continued….)

SURF Channel, which operate in Hawaii and carry Hawaiian high school sports and surfing, respectively, but which neither Time Warner Cable nor Charter consider RSNs.[537] Time Warner Cable also holds a 6.35 percent share in the MLB Network, stating that this interest provides only the rights to distribute MLB content on its own systems, not to license such content for distribution on third-party systems.[538] In addition to this Time Warner Cable sports programming, Bright House owns one local sports channel carrying Florida high school sports that it distributes exclusively[539] and "a minimal (non-attributable) interest in the MLB Network."[540] Charter owns no programming, "other than a small number of local origination channels whose programming Charter does not license for distribution by third parties."[541]

167. Vertical integration of programming controlled by Time Warner Cable's RSNs, with Charter, Time Warner Cable and Bright House programing distribution networks requires an analysis of whether the transaction increases the Applicants' incentive and ability to disadvantage competing distributors by withholding access to, or raising the price of, this programming.[542] In the Commission's recent review of the proposed Comcast-Time Warner Cable-Charter transaction, Time Warner Cable was accused of harming competition in video distribution by demanding excessive prices for SportsNet LA, which airs Los Angeles Dodgers games.[543] Because Time Warner Cable still controls distribution of SportsNet LA, we pay close attention to possible incentives to withhold or raise prices of RSN programming in this transaction.

168. *Positions of the Parties.* The Applicants assert that Time Warner Cable's "limited number of RSNs does not pose any competitive problems."[544] According to the Applicants, the significant cost of acquiring distribution rights and contractual terms compel Time Warner Cable to seek the broadest possible distribution of its RSNs.[545] With respect to Time Warner Cable's failure to obtain

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Antonio and Corpus Christie, and RGV, Texas; (13) Time Warner Cable Sports Channel Milwaukee/Green Bay, WI; (14) Time Warner Cable Special Events; and (15) Canal de Tejas. *Id.*

[537] Time Warner Cable Response to Information Request at 30; Charter Response to Information Request at 80. The Commission's most recent discussion of an RSN defines it as "any non-broadcast video programming service that (1) provides live or same-day distribution within a limited geographic region of sporting events of a sports team that is a member of Major League Baseball, the National Basketball Association, the National Football League, the National Hockey League, NASCAR, NCAA Division I Football, NCAA Division I Basketball Liga de Béisbol Profesional de Puerto Rico, Baloncesto Superior Nacional de Puerto Rico, Liga Mayor de Fútbol Nacional de Puerto Rico, and the Puerto Rico Islanders of the United Soccer League's First Division, and (2) in any year, carries a minimum of either 100 hours of programming that meets the criteria set forth in subheading 1, or 10% of the regular season games of at least one sports team that meets the criteria of subheading 1." *2012 Program Access Order*, 27 FCC Rcd at 12643-12644, para. 56.

[538] Time Warner Cable Response to Information Request at 33, 164.

[539] Application at 50 n.131-132; Charter Response to Information Request at 101.

[540] Advance/Newhouse Response to Information Request at 17.

[541] Charter Response to Information Request at 84; Application at 7-9.

[542] *See, e.g., Comcast-NBCU Order*, 26 FCC Rcd at 4254, para. 36.

[543] *See* City of Los Angeles Comments, MB Docket No. 14-57, at 2 (filed Aug. 25, 2014); Petition to Deny of COMPTEL, MB Docket No. 14-57, at 38 (filed Aug. 25, 2014); National Hispanic Media Coalition Comments, MB Docket No. 14-57, at 15 (filed Aug. 25, 2014); Petition to Deny of Sports Fans Coalition, MB Docket No. 14-57 at 27-28 (filed Aug. 25, 2014).

[544] Application at 52.

[545] *Id.*; Charter, Time Warner Cable and Advance/Newhouse, White Paper, Analysis of Video Programming Foreclosure Issues Involving Time Warner Cable SportsNet and SportsNet LA, para. 1, (RSN Foreclosure Analysis
(continued….)

broad distribution of SportsNet LA, Time Warner Cable asserts that it has committed publicly to enter into binding arbitration with any MVPD seeking to carry SportsNet LA, and the Applicants state that New Charter intends to continue to abide by this pledge for a period of three years from the close of the transaction.[546] The Applicants also claim that the Commission's program access rules and complaint process combined with the Applicants' offer to enter arbitration are sufficient to allow any distributor believing it has been improperly denied access to SportsNet LA programming to seek relief.[547]

169. The Applicants provide an analysis of video programming foreclosure issues involving Time Warner Cable SportsNet and SportsNet LA that concludes that the transaction is unlikely to lead to permanent foreclosure or increased prices for Time Warner Cable SportsNet or permanent foreclosure of SportsNet LA.[548] For Time Warner Cable SportsNet, the analysis compares the profitability to New Charter of not renewing expiring licensing agreements in hopes of gaining additional subscribers, relative to the profitability of renewing the expiring licensing agreements.[549] The analysis concludes that subscribers would not leave rival MVPDs in order to receive Time Warner Cable SportsNet at a sufficient rate to make permanent foreclosure more profitable for New Charter than renewing the licensing agreements.[550] For SportsNet LA, the analysis first asserts that SportsNet LA has not been a successful venture for Time Warner Cable.[551] The analysis further concludes that if Time Warner Cable's current inability to license SportsNet LA to rival MVPDs is based on a foreclosure strategy, then the transaction would not lead to transaction-specific harm based on such a strategy.[552] Concluding that a permanent foreclosure analysis as done in past transactions cannot be performed because no rival MVPDs currently carry SportsNet LA,[553] the analysis then estimates the effect of the transaction on the maximum price another distributor (i.e., AT&T/DIRECTV) would be willing to pay for SportsNet LA, and the difference between the minimum price that New Charter would find acceptable and the minimum price that Time Warner Cable would have found acceptable absent the transaction.[554] The analysis ambiguously concludes that, **[BEGIN HIGLY CONF. INFO.]**

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White Paper), transmitted by letter from Samuel Feder, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Dec. 3, 2015) (Charter Dec. 3, 2015, *Ex Parte* Letter).

[546] Application at 52; Time Warner Cable Response to Information Requests at 41; Charter Dec. 3, 2015, *Ex Parte* Letter. Currently SportsNet LA is carried by Time Warner Cable, Bright House, and, since announcement of the transaction, Charter. RSN Foreclosure Analysis White Paper at paras. 2, 34. Time Warner Cable SportsNet is carried by all MVPDs in Los Angeles except DISH. *Id.* at para. 2.

[547] Application at 52-53.

[548] RSN Foreclosure Analysis White Paper at paras. 4-5, 32.

[549] *Id.* at paras. 12-21.

[550] *Id.* at para. 22. The Analysis also concludes that departure rates would be sufficiently low to allow New Charter to obtain only "very small" per subscriber price increases for Time Warner Cable SportsNet. *Id.* at para. 27.

[551] *Id.* at para. 38. The analysis states that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *Id.*

[552] *Id*. at para. 39.

[553] *Id*. at para. 42.

[554] *Id*. at para. 51.

[555] *Id.* at para. 55.

The analysis further concludes, "[T]he minimum acceptable price to New Charter post-merger would be somewhat higher than the minimum price acceptable to Time Warner Cable pre-merger."[556]

170. Hawaiian Telcom Services Company (Hawaiian Telcom), a small company offering MVPD service in Hawaii, claims that Time Warner Cable has leveraged its control of OC Sports, a Hawaii RSN televising University of Hawaii football and other intercollegiate sports, to raise Hawaiian Telecom's costs by previously not allowing it to resell commercial airtime for local advertising to other potential advertisers.[557] In addition, according to Hawaiian Telcom, Time Warner Cable previously required it to carry OC Sports on its basic tier, increasing Hawaiian Telcom's "non-compensable costs" and inhibiting free channel positions and marketing.[558] Hawaiian Telcom admits that Time Warner Cable stopped making these demands during the Commission's review of the proposed Comcast-Time Warner Cable merger, but "strongly suspects" that New Charter would resume making them if this transaction is approved.[559] Further, according to Hawaiian Telcom, Time Warner Cable refuses to allow Hawaiian Telcom to purchase the Time Warner Cable-produced and televised OC16 channel, which shows Hawaii high school sports that are very popular.[560] The lack of this channel, according to certain Hawaiian Telcom potential, current and former customers, has caused a "meaningful portion of those surveyed" to not subscribe, disconnect, or be dissatisfied with Hawaiian Telcom's video services.[561] Finally, Hawaiian Telcom complains that it is "not allowed to air" the SURF channel, which covers Hawaii surfing and is included in Time Warner Cable's Hawaii cable line-up.[562] Hawaiian Telcom asks the Commission to impose conditions on New Charter that would grant it access to Time Warner Cable's RSNs for five years and "require continued access by MVPDs in Hawaii to RSN networks and all University of Hawaii sports through long term contracts in accordance with current terms and conditions."[563] It also asks for conditions prohibiting exclusive contracts for carrying Hawaii high school sports and access to "amateur Hawaii high school sports on a live basis at fair market rates and conditions, as well as access to SURF channel at fair market rates and conditions, [both] subject to compulsory arbitration."[564]

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[556] *Id*. at para. 56.

[557] Hawaiian Telcom Comments at 12; Hawaiian Telcom Comments, Declaration of Jason Fujitsu, Vice President, Consumer Sales and Marketing, Hawaiian Telcom Services Company, Inc., at para. 7 (Fujitsu Decl.).

[558] Hawaiian Telcom Comments at 12; Fujitsu Decl. at para. 8.

[559] Hawaiian Telcom Comments at n.50; Fujitsu Decl. at para. 8. Hawaiian Telcom also complains that Time Warner Cable only negotiates one-year contracts for OC Sports. Hawaiian Telcom comments at 13; Fujitsu Decl. at para. 8.

[560] Hawaiian Telcom Comments at 13; Fujitsu Decl. at para. 9.

[561] Hawaiian Telcom Comments at 13; Fujitsu Decl. at para. 9.

[562] Hawaiian Telcom Comments at 13; Fujitsu Decl. at para. 10.

[563] Hawaiian Telcom Comments at iii, 21; Hawaiian Telcom Reply at 5.

[564] Hawaiian Telcom Comments at 21; Hawaiian Telcom Reply at 5. Only a few other commenters raise withholding or raising prices of RSNs as a possible harm to competition in this transaction. US Telecom mentions the value of RSN programming and asserts generally that, "In recent years, US Telecom member companies have been the victims of cable withholding RSNs." Letter from Jonathan Banks, Senior VP, Law & Policy, US Telecom to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 6 (filed Nov. 12, 2015) (US Telecom Nov. 12, 2015, *Ex Parte* Letter). The Sports Fans Coalition and beIN SPORTS assert that New Charter would be able to prevent streaming or MVPD competitors from acquiring must have programming such as RSNs. Letter from David Goodfriend to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Feb. 15, 2016) (beIN SPORTS and Sports Fans Coalition Feb. 15, 2016, *Ex Parte* Letter); Letter from David Goodfriend to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Mar. 17, 2016) (beIN SPORTS and Sports Fans Coalition Mar. 17, 2016, *Ex Parte* Letter). The Sports Fans Coalition and beIN SPORTS raised their concerns for the first time in their Feburary 16, 2016 *Ex Parte* Letter. Under the pleading schedule established for this

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171. In response to these claims, Time Warner Cable states that in 2011, Hawaiian Telcom actually requested access to a Time Warner Cable pay-per-view package consisting of University of Hawaii football and basketball games, and a separate linear OC Sports Channel including University of Hawaii baseball, volleyball and diving.[565] According to Time Warner Cable, it had made a business decision not to license the linear OC Sports Channel to other distributors, and therefore offered only its pay-per-view package to Hawaiian Telcom.[566] "Soon thereafter" Time Warner Cable changed its decision and licensed OC Sports Channel to Hawaiian Telcom on August 31, 2011, and has subsequently renewed the license agreement annually, with one renewal occurring several months after the Commission's review of the proposed Comcast-Time Warner Cable transaction ended.[567] The Applicants' economic expert Dr. Scott Morton also states that Hawaiian Telecom's claims are not transaction-specific because Charter and Bright House do not operate in Hawaii today, and the transaction would cause no change in the Applicants' market share in Hawaii.[568]

172. *Discussion.* Based on the record before us, we find that the transaction is not likely to harm competition due to New Charter's control of Time Warner Cable's RSNs. Though we acknowledge Commission precedent concerning the uniqueness of RSN programming,[569] this transaction will not create any increased incentive and ability to foreclose or raise prices of RSN programming because New Charter will not increase its share of video subscribers or homes passed in most of the regions in which it is acquiring RSN programming. With regard to the Los Angeles RSNs, the change in MVPD concentration across the Los Angeles metropolitan area caused by the transaction would be slight. Charter today serves under five percent of Los Angeles area subscribers. Thus the transaction would be unlikely to significantly increase the Applicants' incentive or ability to foreclose access to, or raise prices of, the Los Angeles RSNs.

173. To further investigate the issue concerning the Los Angeles RSNs, the Commission analyzed the Applicants' submission regarding foreclosure of Time Warner Cable SportsNet and

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proceeding, comments and petitions to deny were due October 13, 2015. *See Public Notice*, 30 FCC Rcd at 9916. The Sports Fans Coalition and beIN SPORTS had ample time to submit their comments during the established pleading cycle, but it failed to do so and offers no justification now for its late submission. As was emphasized in the *Public Notice*, to allow the Commission to consider fully all substantive issues regarding the Application in as timely and efficient a manner as possible, petitioners and commetners must raise all issues in their initial filings. New allegations may not be raised in responses or replies and, absent a showing of good cause, any issues not timely raised may be disregarded by the Commission. *Public Notice*, 30 FCC Rcd at 9918 (citing 47 CFR § 1.45(c)). We therefore dismiss The Sports Fans Coalition and beIN SPORTS requests as untimely. *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9150, 9151, paras. 42, 46.

[565] Time Warner Cable Response to Information Request at 44.

[566] *Id.*

[567] *Id.* at 44, 46, 48. Charter asserts that Hawaiian Telcom admits that it now carries Time Warner Cable's OCSports and now seeks access to additional Time Warner Cable programming, and that the Commission's program access rules "do not compel New Charter to offer its programming at the uneconomic rates, terms and conditions Hawaiian Telcom would prefer." Opposition at 80.

[568] Scott Morton Reply Decl. at para. 11. We also note that Time Warner Cable does not categorize OC16 and SURF Channel as RSNs, and that their programming is not the type of major league sports or NCAA Division I content contained in our definition of RSNs. *See* Time Warner Cable Response to Information Request at 30-32; *2012 Program Access Order*, 27 FCC Rcd at 12643-12644, para. 56.

[569] *See 2010 Program Access Order*, 25 FCC Rcd 746, 782-83, para. 52 (rejecting *per se* rule that an unfair act involving an RSN always hinders an MVPD from providing programming and allowing a defense against program access complaints by establishing that the unfair act involving an RSN does not significantly hinder or prevent the MVPD from providing programming).

SportsNet LA programming, and also performed its own foreclosure analysis, presented in Appendix C. Using estimates of subscriber departure derived from an empirical examination of SportsNet LA holdouts during the 2014 and 2015 baseball seasons, the Commission has determined that New Charter will not have an incentive to foreclose competitors from access to Los Angeles RSN programming.[570] Under any reasonable assumptions, the expected benefit to New Charter of foreclosing these RSNs is outweighed by the expected loss of licensing fees and advertising revenue. This conclusion is in line with the findings the Applicants presented.[571]

174. Only Hawaiian Telcom and Sports Fans Coalition/beIN SPORTS allege that New Charter would foreclose or raise prices for its RSN programming, and US Telecom asserts, without evidence, merely that cable companies have withheld RSN programming from its members.[572] None of these commenters provide any economic analysis to support their allegations. With respect to SportsNet LA, the Applicants have committed to arbitration.[573] Time Warner Cable also presents a detailed account of its efforts to license SportsNet LA programing to competing distributors.[574] Time Warner Cable documents also support a conclusion that it **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[575]

175. With respect to Hawaiian Telcom's claim that Time Warner Cable is withholding or raising the price of OC Sports Channel, we note that the parties agree that Time Warner Cable now licenses the programming to Hawaiian Telcom without restrictions on advertising sales or tier placement.[576] Hawaiian Telcom's claim that New Charter would cease doing so if the transaction is approved is speculative, **[BEGIN HIGHLY CONF.INFO.]**

[570] *See* Appendix C, Section III.C.1. As part of its investigation of this issue, the Commission performed a rigorous econometric analysis of subscriber departure and improved upon the Applicants' estimates of expected subscriber value to obtain revised estimates of the potential costs and benefits of a foreclosure strategy. As discussed in Appendix C, the transaction may result in significant upward pricing pressure for Time Warner Cable's Los Angeles RSNs in one DMA, Santa Barbara, where New Charter would face limited, non-cable competition and would have the greatest incentive to increase prices. *See id.*, Section III.C.1.b.(iii)(b). New Charter is unlikely to obtain this theoretical price increase, however, because it would be required to negotiate across several markets simultaneously, and transaction-specific pricing pressures are much less pronounced in the other California DMAs. Therefore, potential buyers of the RSNs across the distribution area would resist paying the potentially higher Santa Barbara price. Currently, Time Warner Cable charges a uniform price for its RSNs across all Zone 1 markets.

[571] *See* Appendix C, Section III.C.1.

[572] *See supra* note 564.

[573] Application at 52; Time Warner Cable Response to Information Request at 41; Charter Dec. 3, 2015, *Ex Parte* Letter.

[574] Time Warner Cable Response to Information Request at 46-47; Fujitsu Decl. at para. 8.

[575] TWC-DOJ-01563570 at 2-13, 15-18, **[BEGIN HIGHLY CONF. INFO.]**

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[576] Hawaiian Telcom Comments at 13, note 50. Fujitsu Decl. at para. 8; *see also* Time Warner Cable Response to Information Request at 44, 46, 52.

[END HIGHLY CONF. INFO.].[577] Further, as Charter points out, Hawaiian Telecom makes no showing that the alleged harm from Time Warner Cable's (and potentially, New Charter's) ownership of this programming is specific to this transaction.[578] Because Charter and Bright House are not present in Hawaii today, the transaction would not change the Applicants' incentive or ability to withhold or raise prices of the Hawaiian sports programming. We therefore do not need to address arguments about the desirability of the programming offered by the Applicants.[579] Finally, we find our program access rules and the Applicants' offer to submit to arbitration regarding access to SportsNet LA sufficient to protect MVPD competition in connection with New Charter's control of RSNs and other sports programming. Accordingly, we decline to impose the additional sports programming-related conditions sought by Hawaiian Telcom.[580]

4. Other Programming

176. In addition to the sports programming discussed above, Time Warner Cable owns 36 local news networks and has attributable interests of 8.23 percent in Nippon Golden Network Inc., and in NGN Hotel Channels (available in hotels only).[581] Bright House owns and exclusively distributes local news networks Bay News 9, Central Florida News 13, and InfoMás, a Spanish language news station.[582] Both Time Warner Cable and Bright House hold attributable ownership interests (28.9 percent and approximately 5.3 percent, respectively) of iN Demand, a provider of pay-per-view and VOD programming.[583] The Applicants assert that, because all their programming is regional and local, concerns regarding vertical integration of video programming and MVPD distribution are not relevant.[584] The Applicants further assert that, "given the limited nature and quantity of programming affiliated with Liberty Broadband and Advance/Newhouse, neither has any incentive to take actions that conflict with New Charter's best interests."[585] The programming in which, according to the Applicants, Liberty Broadband, Advance/Newhouse, or Liberty Broadband's Chairman, John Malone (Malone), "may be deemed to have an attributable interest" includes several national cable networks owned by Discovery Communications, Inc., (Discovery), the Starz channels, and a few smaller cable networks.[586] Therefore,

[577] Time Warner Cable Response to Information Request at 52.

[578] Opposition at 80.

[579] Hawaiian Telcom's support for its claim regarding the value of OC16 programming amounts to unspecified contacts with potential, current and former customers, a "meaningful portion" of whom "indicate that the inability to receive the OC16 channel and high school sports is a deciding factor for not subscribing to, being completely satisfied with, or disconnecting from Hawaiian Telcom video services." Hawaiian Telcom Comments at 13, Fujitsu Decl. at para. 9. Hawaiian Telcom offers no evidence to support claims regarding the value of SURF Channel.

[580] We also note that Hawaii has approved the transaction with no mention of Hawaiian Telcom's complaints in this proceeding. *See Joint Application of Time Warner Cable, Inc., and Charter Communications, Inc. for Approval of the Transfer of Control of Oceanic Time Warner Cable LLC's Cable Television Franchises*, Hawaii Dept. of Commerce and Consumer Affairs, Cable Television Division, Decision and Order No. 336 (Dec. 17, 2015).

[581] Application at 50, n.134; Time Warner Cable Response to Information Request at 30-32.

[582] Application at 50 n.131; Charter Response to Information Request at 101.

[583] Application at 11 & n.131; Charter Response to Information Request at 101, 103; Advance/Newhouse Response to Information Request at 17.

[584] Application at 52.

[585] *Id*. at 53 n.146.

[586] Charter Response to Information Request at 100-101. *See also* WGAW Petition at 11. Discovery's 14 national cable networks include Discovery, The Learning Channel (TLC), Oprah Winfrey Network (OWN), Animal Planet, (continued….)

the Commission must determine whether the transaction will significantly increase the incentive or ability of New Charter, Discovery, Starz, or any additional programmers that would be affiliated with New Charter to foreclose or raise the prices of this programming to the detriment of New Charter's video distribution competitors.

a. Program Access Attribution Rules

177. Section 628(b) of the Communications Act prohibits "a cable operator, a satellite cable programming vendor in which a cable operator has an attributable interest, or a satellite broadcast programming vendor [from] engag[ing] in unfair methods of competition or unfair or deceptive acts or practices, the purpose or effect of which is to hinder significantly or prevent any MVPD from providing satellite cable programming or satellite broadcast programming to subscribers or consumers."[587] The Commission has found that "any party with an attributable interest in a cable operator under the program access attribution standard shall be treated as a cable operator for purposes of the rules."[588] Accordingly, a cable operator such as New Charter and a satellite cable programming vendor such as Discovery need only share common attributable interest holders in order to be subject to the program access rules.

178. In the cable context, there are two strains of cable attribution rules: (1) the "general attribution standard"[589] and (2) the "program access attribution standard."[590] The program access attribution standard is more inclusive than the general attribution standard (i.e., it counts more relationships as attributable).[591] Under the program access attribution standard, a party has an attributable interest in a programmer if, among other things, it "holds five percent or more of the stock of the programmer, whether voting or non-voting."[592] In addition, "all officer and director positions and general partnership interests" are attributable, as well as "limited partnership interests of five percent or greater,

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Science, Investigation Discovery, Discovery Family, Destination America; Discovery en Espanol, Discovery Familia, Velocity, Discovery Life, and American Heroes Channel. Charter Response to Information Request at 100-101. Starz programming includes the Encore channels, which are subsequently referred to collectively as Starz.

[587] 47 U.S.C. § 548(b); *see also* 47 CFR §§ 76.1000 et seq.

[588] *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Review of the Commission's Cable Attribution Rules,* Report and Order, CS Docket Nos. 98-82, 96-85, 14 FCC Rcd 19014, 19056, para. 111 (*1999 Cable Attribution Order)*; *see also* 47 CFR § 76.1000(b).

[589] *See* 47 CFR § 76.501 notes 1-5.

[590] *See* 47 CFR § 76.1000(b). The program access attribution standard incorporates by reference much of the general attribution standard, but with several notable exceptions that allow the program access attribution standard to capture additional relationships. For example, the program access attribution standard (1) counts non-voting stock interests in addition to voting stock interests; (2) does not include limited partner and LLC/LLP/RLLP insulation provisions; and (3) does not include a single majority shareholder exemption.

[591] *See 1999 Cable Attribution Order*, 14 FCC Rcd at 19054-55, para. 105; *Implementation of the Television Consumer Protection and Competition Act of 1992, Review of the Commission's Cable Attribution Rules*, Notice of Proposed Rulemaking, 13 FCC Rcd 12990, 12993, para. 5 (1998); *Implementation of the Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution and Carriage*, Memorandum Opinion and Order on Reconsideration of the First Report and Order, 10 FCC Rcd 1902, 1922, para. 44 (1994) (*1994 Program Access First Reconsideration Order)*; *Implementation of the Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution and Carriage,* First Report and Order, 8 FCC Rcd 3359, 3370, para. 31 (1993) (*1993 Program Access First R&O*).

[592] *1993 Program Access First R&O*, 8 FCC Rcd at 3370-71, paras. 31-32; 47 CFR §§ 76.1000(b)(2), 76.501 note 2(a). Ownership interests held indirectly through one or more intervening companies are determined by successive multiplication up the vertical ownership chain, except that ownership percentages over 50% are counted as 100% ownership for purposes of multiplication. 47 CFR § 76.501 note 2(c).

regardless of insulation."[593] The general attribution and program access standards both attribute interests where certain "passive" institutional investors (e.g., investment companies, insurance companies, or banks) hold voting stock interests of 20 percent or more.[594] The program access attribution standard places a particular emphasis on influence in addition to control.[595]

b. Attributable Programming

179. *Positions of the Parties.* The Applicants state that Advance/Newhouse, which would hold 13 to 14 percent of New Charter, also holds, through its parent Advance Newhouse Programming Partnership, a 32.81 percent attributable interest in national programming provided by Discovery.[596] Specifically, according to the Applicants, Advance/Newhouse owns preferred stock in Discovery which, if converted to common stock, would give Advance/Newhouse Series A and Series C common stock representing approximately 24.9 percent of the voting power on all matters, plus preferred stock entitling it to designate three directors to Discovery's board.[597] Additionally, the Applicants state, the transaction would give Liberty Broadband, which, as of July 31, 2015, owns 25.71 percent of Charter, a 17 to 19 percent interest in New Charter and the right to nominate three members to its 13-member Board of Directors.[598] Liberty Broadband would be contributing its shares of Time Warner stock as part of the transaction, and $4.3 billion in cash to New Charter.[599] Malone is Chairman of the Board of Liberty Broadband, and owns shares constituting 46.6 percent of the voting power and 8.7 percent of the equity of Liberty Broadband.[600] Malone also has a 28.7 percent voting interest and a 4.8 percent equity interest in Discovery and sits on its Board of Directors.[601] According to Dr. Salop, Malone and Advance/Newhouse have a combined 35.8 percent equity share in Discovery, and would have a combined attributable interest

[593] *1993 Program Access First R&O*, 8 FCC Rcd at 3370, para. 31; 47 CFR §§ 76.1000(b)(1); 76.501 note 2(g).

[594] 47 CFR § 76.501 note 2(b); *Commission's Cable Horizontal and Vertical Ownership Limits*, Fourth Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 2134, 2176-77, para. 93 (2008); *1999 Cable Attribution Order*, 14 FCC Rcd at 19037-38, paras. 55-56. In addition, an Equity Debt Plus (EDP) rule seeks to capture non-attributable investments that, in the aggregate, carry the potential for influence. Under the EDP rule, an investor who holds more than 33 percent of the entity's total asset value (equity plus debt) is deemed to have an attributable interest if certain other conditions are met, regardless of whether the interest is otherwise non-attributable. 47 CFR § 76.501 note 2(i).

[595] *1994 Program Access First Reconsideration Order*, 10 FCC Rcd at 1922, para. 44 ("[T]he amount of ownership and, therefore, an entity's 'control' is the focus of the vertical and horizontal ownership rules. By comparison, the attribution standard in the program access rules is focused on 'influence' on programming vendor behavior, irrespective of the amount of ownership that may be involved."); *1993 Program Access First R&O*, 8 FCC Rcd at 3370, para. 31 ("The policy objective involved here, we believe, warrants a relatively inclusive attribution rule.").

[596] Application at 15 and Exh. H. *See also* American Cable Association Comments at 9 (ACA Comments).

[597] Charter Response to Information Request at 103.

[598] Application at 14, 16; Charter Response to Information Request at 27, 102, 105, 107, 109. Liberty Broadband would also hold proxies to vote additional shares of New Charter common stock, but would not have the right in the aggregate to vote more than 25.01 percent of New Charter common stock. Charter Response to Information Request at 106, 108.

[599] Application at 14. *See also* Liberty Broadband Response to Nov. 2, 2015, Information Request and Data Request, transmitted by letter from Robert L. Hoegle, Counsel for Liberty Broadband, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 3 (Liberty Broadband Response to Information Request) ("Liberty Broadband has agreed to invest $5 billion in New Charter.").

[600] Charter Response to Information Request at 27, 105.

[601] *Id*. at 102. *See also* Discovery Communications (Form 10-K) at 22-24 (2014) ("by virtue of their respective holdings, Malone and Advance/Newhouse each have significant influence over the outcome of any corporate transaction or other matter submitted to our stockholders.").

in New Charter of 14.7 percent.[602] Malone also is Chairman of the Board of Liberty Interactive, of which he owns an aggregate 36.6 percent voting interest and a 6.0 percent equity interest.[603] Liberty Interactive would own between 1.7 and 1.9 percent of New Charter common stock and provide a proxy to Liberty Broadband to vote those shares.[604] Malone is a member of Charter's Board, and likely to be one of the three directors that Liberty Broadband would name to New Charter's Board.[605]

180. In addition to his interests in Discovery and Liberty Broadband, Malone holds a 31.8 percent voting interest and a 6.0 percent equity interest in Starz, Inc., whose programming consists of the Starz and Encore channels.[606] Malone has a 37.7 percent voting interest and a 6.2 percent equity interest in the QVC Group, which owns the video and online retailer QVC, Inc.[607] QVC Group also owns 38 percent of the video retailer HSN, Inc.[608] Finally, Malone is a Director of Lions Gate Entertainment Corporation (Lionsgate), in which he holds a 3.3 percent voting interest and a 3.3 percent equity interest.[609] Lionsgate maintains interests in the following programmers: 50 percent of Pop Network (formerly TV Guide Network), 31.2 percent of EPIX, and 14.7 percent of Starz, Inc.[610]

181. The Applicants assert that a number of precautions are in place to prevent Advance/Newhouse or Malone from improperly influencing New Charter, including: 1) the initial 26 percent cap on Liberty Broadband's equity interest in New Charter (which can rise to 35 percent if Advance/Newhouse permanently reduces its New Charter ownership percentage); 2) the initial cap of 14 percent on Advance/Newhouse's equity interest in New Charter; 3) the fact that programming-related transactions involving Liberty Broadband or Advance/Newhouse or their respective programming affiliates require approval of a majority of unaffiliated directors other than Tom Rutledge or directors named by Liberty Broadband and Advance/Newhouse; 4) the fact that a majority of the directors on the Nominating, Corporate Governance and Compensation, and Benefit Committees would be unaffiliated

[602] Salop Decl. at para. 21.

[603] Charter Response to Information Request at 102.

[604] *Id.* at 81, 105. Salop states Malone's equity interest in New Charter as 1.7 percent. Salop Decl. at para. 21.

[605] Charter, Board of Directors, ir.charter.com/phoenix.zhtml?c=112298&p=irol-govboard (last visited Apr. 29, 2016); Charter Response to Information Request at 110.

[606] Charter Response to Information Request at 102. According to Liberty Broadband's 2014 SEC Form 10-K, Malone holds 10.1 percent of the common stock and a 45.5 percent voting interest in Starz, LLC, which owns the Starz, Encore and MoviePlex cable networks. Liberty Broadband (Form 10-K) at IV-44 (2014).

[607] Charter Response to Information Request at 102 & n.146.

[608] *Id. See also* Charter Response to Information Request at 101 (listing HSN and QVC as programming affiliated with Malone, Liberty Broadband and Advance/Newhouse).

[609] Charter Response to Information Request at 102. Discovery and Europe's biggest cable operator, Liberty Global, of which Malone is also a major shareholder, recently purchased 5 million shares of Lionsgate each, giving each an equity stake in Lionsgate of 3.4 percent. As part of the sale, both companies signed licensing agreements for Lionsgate television and theater releases. Discovery and Liberty Global CEOs would both become members of the Lionsgate Board of Directors. Discovery and Liberty Global also have a joint venture in programmer All3Media. *See*, Leon Lazaroff, *What John Malone Is Planning with Latest Media Stock Roll-Up*, The Street, Nov. 10, 2015, *available at* http://www.thestreet.com/print/story/13359569 html. Documents discuss benefits of the agreement. *See*, *e.g.*, BHN-000326927 at BHN-000326932, **[BEGIN HIGHLY CONF. INFO.]**

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[610] Charter Response to Information Request at 102 & n.147.

directors; and 5) the fact that the Audit Committee must approve any transaction likely to exceed $100,000 in a calendar year in which Liberty Broadband or Advance/Newhouse has a direct or indirect interest, and all members of that committee would be independent, outside directors.[611] In addition, Charter claims that the 13-member size of Board of Directors of New Charter ensures that the five directors Liberty Broadband and Advance/Newhouse nominate would not be able to cause New Charter to undertake conflicted transactions that do not benefit New Charter as a whole. Further, Charter claims that pursuant to a Stockholder's Agreement, such affiliated directors would not serve on any committee formed to evaluate a transaction or arrangement with Liberty Broadband and Advance/Newhouse or their affiliated entities.[612] Finally, Charter points to Delaware law regarding directors' fiduciary responsibilities to act in the best interests of the corporations they serve and to place those interests above their personal interests.[613]

182. On the connected question of influence over affiliated programmers' decisions about licensing their programming, Charter points to the existence of a "related person transaction policy" for Discovery's directors, including Malone or any other directors affiliated with Advance/Newhouse or Liberty Broadband. The policy requires such directors to inform Discovery's CEO, General Counsel, and chairpersons of the Nominating and Corporate Governance Committees of any actual or potential conflict of interest, including being a party to a proposed related person transaction.[614] Finally, Discovery directors must recuse themselves from any decision of the Board or a Board committee that involves or affects their personal, business, or professional interests.[615]

183. While Discovery concedes that its programming is subject to the Commission's program access rules,[616] it asserts that, while it shares common owners with certain of the Applicants under the FCC's program access attribution rules, it operates as a wholly independent programmer and does not coordinate carriage decisions with Charter and would not coordinate such decisions with New Charter.[617] According to Discovery, since the Commission last reviewed Malone's and Liberty's interests in Discovery in the 2008 Liberty Media-DIRECTV transaction, the ownership interests and relationships have changed.[618] In 2008, Malone controlled Liberty Media, and the Commission found that, by holding 4 of 5 Board seats and serving as Chairman of the Board and CEO, Malone also controlled Liberty, which

[611] Application at 54; Charter Response to Information Request at 109. The Audit Committee must consider whether the transaction with an affiliated party is on terms "no less favorable than terms generally available to an unaffiliated third-party under the same or similar circumstances." Charter Response to Information Request at 112.

[612] Charter Response to Information Request at 110-111. The Stockholder's Agreement also prohibits Liberty Broadband or Advance/Newhouse from soliciting proxies or consents relating to the election of directors not nominated by the Board, proposing any matter for submission to a vote or calling a meeting of shareholders, and taking any actions or making public statements not approved by the Board seeking to control or influence the management, Board or policies of New Charter. *Id.* at 112.

[613] *Id.* at 113-114.

[614] *Id.* at 115. The Nominating, Corporate Governance or other independent Board Committee is required to resolve the conflict of interest, and must approve any related person transaction. *Id.* at 115. Similarly to Charter's policy, Discovery policy requires that, in evaluating the related person transactions, the Committees consider whether the transaction is entered on terms no less favorable than terms that could have been reached with an unrelated third party and the potential benefits to Discovery to the transaction. *Id.* at 116.

[615] *Id.* at 115.

[616] Discovery Communications, Inc. Response to Comments, MB Docket No. 15-149, at 3-4 (filed Nov. 2, 2015) (Discovery Response).

[617] Discovery Response at 1.

[618] Letter from Tara M. Corvo, Counsel for Discovery, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Feb. 10, 2016) (Discovery Feb. 10, 2016, *Ex Parte* Letter).

in turn controlled Discovery Holdings, which owned 66 percent of Discovery.[619] Discovery states that, since then, Discovery has become a public company, neither Liberty Media nor Discovery Holdings is in Discovery's ownership chain, and Malone's equity interest and voting power in Discovery have been significantly reduced.[620] Discovery adds that Malone holds no executive office in Discovery and is one of ten Board members.[621] Similarly, Starz asserts that Malone has "neither the economic incentive nor ability to cause Starz to disadvantage its own interests in favor of New Charter's interests."[622] Starz also argues that the program access rules adequately protect competing MVPDs.[623]

184. In contrast to the Applicants' claim that New Charter would control only minimal local or regional networks, several commenters assert that the Discovery and Starz programming discussed above is attributable to New Charter, which itself would control significant national and regional programming.[624] ACA points out that Malone's ownership interests in Discovery and Starz far exceed the five percent attribution threshold established by FCC rules, and asserts that this programming would be attributable to New Charter.[625] ACA urges the Commission to consider Malone's financial interests in Charter, New Charter, Liberty entities, Discovery, and Starz.[626] Cincinnati Bell alleges that Malone and entities he controls would influence Charter and New Charter's decisions.[627] Public Knowledge urges the Commission to analyze the extent to which Malone, with his interests in Discovery and Starz and seat on the board of Lionsgate, would unduly influence the decisions of New Charter.[628]

185. *Discussion.* We agree with Discovery that its programming is subject to our program access rules and conclude that post-transaction, by operation of our program access attribution rules, all Discovery programming would become New Charter's affiliated programming and thus continue to be subject to our program access rules. We further conclude that Starz, QVC, HSN, and iN Demand programming would become New Charter's affiliated programming subject to our program access rules. We do not consider Malone's 3.3 percent voting and equity interest in Lionsgate and his indirect ownership in EPIX programming through Lionsgate's 31.2 percent ownership of EPIX sufficient ownership, influence or control to make Lionsgate or EPIX programming attributable to New Charter.

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[619] *Id.* Liberty Media spun off its interest in Liberty Broadband and Charter in 2014, and is not a party to this transaction. Liberty Media Response to Nov. 2, 2015, Information Request, MB Docket No. 15-149, at 1 (filed Nov. 16, 2015). Liberty Media has no interests greater than 5 percent in any MVPD, video programmer or OVD distributor. *Id.*

[620] Today Malone holds a 4.8 percent equity and 28 percent voting interest in Discovery. Charter Response to Information Request at 102.

[621] Letter from Tara M. Corvo, Counsel for Discovery, to Marlene H. Dortch, Secretary FCC, MB Docket No. 15-149, at 1 (filed January 14, 2016) (Discovery Jan. 14, 2016, *Ex Parte* Letter); Discovery Feb. 10, 2016, *Ex Parte* Letter at 2.

[622] Response of Starz at 2 (filed Nov. 2, 2015) (Starz Response).

[623] *Id.* at 1.

[624] WGAW Petition at 9-11; ACA Comments at ii, 8-10; Cincinnati Bell Comments at 6-7; Hawaiian Telcom Comments at 14; US Telecom Nov. 12, 2015, *Ex Parte* Letter at 5-6.

[625] ACA Comments at 9-10, 13. ACA also asserts that it is not the quantity of programming that may trigger competitive harm, but that such harm arises from affiliation alone. *Id*. at 8.

[626] ACA Comments at 13.

[627]Cincinnati Bell Comments at 7. Cincinnati Bell points to Malone becoming the largest shareholder of Charter and then negotiating the current transaction, as well as his close business relations with Charter President and CEO Tom Rutledge. Cincinnati Bell Comments at 7.

[628] Public Knowledge et al. Petition at 19.

186. Malone and Advance/Newhouse exert additional influence over Discovery unrelated to their ownership interests. Advance/Newhouse controls approximately 24.9 percent of the voting power on all Discovery matters and designates three of Discovery's directors.[629] The CEO of Advance/Newhouse, Steve Miron, also sits on Discovery's Board of Directors.[630] Robert Miron, former CEO of Advance/Newhouse and father of Steve Miron, is Chairman of Discovery's Board.[631] Further, Malone can influence Discovery's decision making through his 28.7 percent voting interest and position on the Discovery Board's Executive Committee.[632] In addition to influencing Discovery, Malone would also have an ability to influence New Charter's decisions through his significant voting interest, Chairmanship of the Board of Directors of New Charter's largest shareholder, Liberty Broadband, and Liberty Broadband's right to nominate three of New Charter's 13 Board members.[633] Malone would likely be one of these three Board members.[634] With respect to additional programming, Malone's interests in Starz, QVC, and HSN are all above the five percent threshold established by our program access attribution rules, and therefore are attributable to Malone. Greg Maffei is a member of Charter's Board of Directors, President and CEO, Liberty Media (of which Malone is Chairman), and Chairman of the Board of Starz.[635]

187. For all the forgoing reasons, we find that Malone and Advance/Newhouse have attributable interests in cable operators, and that the Discovery, Starz, QVC, HSN and iN Demand programming attributable to them is programming attributable to a cable operator and thus subject to the Commission's program access rules. As a result of this transaction, this programming would also become New Charter's affiliated programming.

c. Incentive and Ability to Foreclose or Raise Prices of Affiliated Programming

188. Above we conclude that Discovery, Starz, QVC, HSN and iN Demand programming would be New Charter's affiliated programming.[636] Commenters argue that because of New Charter's

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[629] Charter Response to Information Request at 103.

[630] Advance/Newhouse Response to Information Request at 18.

[631] *See* Discovery, *Leadership*, https://corporate.discovery.com/our-company/leadership/ (last visited Mar. 14, 2016).

[632] Charter Response to Information Request at 102. *See also* Liberty Broadband Response to Information Request at 8, 10.

[633] Application at 14, 16; Charter Response to Information Request at 27, 102, 105, 107, 109.

[634] Charter Response to Information Request at 110. The Applicants' documents regarding Charter's first and ultimately unsuccessful effort to merge with Time Warner Cable also support a conclusion that Malone would have significant influence over New Charter decisions. *See* TWC-DOJ-01945448 at 19, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *See also id.* at 3 **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[635] Charter, *Board of Directors*, http://ir.charter.com/phoenix.zhtml?c=112298&p=irol-govboard (last visited Feb. 24, 2016); Liberty Media Corp., *Management*, http://ir.libertymedia.com/management.cfm; Starz, *Board of Directors*, http://ir.starz.com/directors.cfm (last visited Feb. 24, 2016); Charter Response to Information Request at 110.

[636] As discussed at Section V.E.4.b, *supra*, iN Demand is attributable to Advance/Newhouse through Bright House's 5.3 percent ownership interest, and to New Charter through this interest and Time Warner Cable's 28.9 percent interest. Application at 11 & n.131; Charter Response to Information Request at 101, 103; Advance/Newhouse Response to Information Request at 17. Because no commenters discuss New Charter's potential incentive and (continued….)

larger size, New Charter would be more likely to withhold or raise prices of this affiliated programming for its rival video distributors, both MVPDs and OVDs. We do not believe that the transaction will have this effect. Because New Charter will lack the incentive or ability to withhold or raise prices of affiliated programming, we further find it unnecessary to extend or modify our program access rules or impose other conditions on the licensing of New Charter's affiliated content.

189. *Positions of the Parties.* The Applicants assert that the minority interests held by Liberty Broadband and Advance/Newhouse in New Charter would not affect New Charter's programming decisions.[637] According to the Applicants, because New Charter would have no economic interest in Liberty Broadband, Advance/Newhouse, or any of those two entities' affiliates, New Charter would have no financial stake in the success of programming affiliated with those entities.[638] In addition, the Applicants state that "given the limited nature and quantity of programming affiliated with Liberty Broadband and Advance/Newhouse, neither has any incentive to take actions that conflict with New Charter's best interests."[639]

190. The Applicants also assert that any strategy of withholding Discovery programming from MVPDs or OVDs competing with New Charter would not be profitable for Malone, Advance/Newhouse, or the entities in which they may be deemed to have an attributable interest.[640] Because of the comparatively higher equity stake of Malone and Advance/Newhouse in Discovery, withholding would not be profitable because any amount that they would gain through potential increases in New Charter's subscribership and profits would be outweighed by their losses from the decreases in Discovery's affiliate and advertising revenues.[641] The Applicants support this assertion with an economic analysis of both nationwide and DMA-targeted permanent foreclosure of Discovery programming from MVPDs that concludes that Malone and Advance/Newhouse would be unlikely to profit from such a strategy, assuming they had the ability to implement it.[642] The analysis calculates that the critical departure rate (rate at which subscribers must switch from a foreclosed MVPD to New Charter for nationwide foreclosure to be profitable) would be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, while the estimated actual departure rate would be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, making foreclosure unprofitable for Malone and Advance/Newhouse.[643] For DMA-targeted foreclosure, the critical departure rate would be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, while the actual departure rate would again be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, indicating that a DMA-targeted foreclosure strategy would also be unprofitable for Malone and Advance/Newhouse.[644]

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ability to withhold or raise prices of QVC, HSN or iN Demand, our subsequent analysis and discussion concern only Discovery and Starz programming.

[637] Application at 53.

[638] *Id.*

[639] *Id.* at 53 n.146.

[640] Charter Response to Information Request at 103.

[641] *Id.* at 104; Opposition at 47-48.

[642] Salop Decl. at paras. 11, 33.

[643] *Id.* at para. 56.

[644] *Id*. at para. 64.

191. The Applicants further assert that Discovery and Starz programming is not the type of "marquee" programming at issue in the *Comcast-NBCU Order*.[645] Dr. Salop asserts that History, National Geographic, Smithsonian and Travel channels, PBS stations, and HGTV substitute for Discovery's general programming; Disney Channel, Nickelodeon and Cartoon Network substitute for Discovery's children's programming; and Lifetime, Oxygen and major over-the-air networks substitute for the Oprah Winfrey Network.[646] He also asserts that HBO and Showtime are substitutes for the Starz premium channel.[647] Discovery asserts that it "does not offer the type of broadcast network or regional sports programming that would cause subscribers to switch MVPDs."[648] According to Discovery, it could not foreclose New Charter's competitors and remain successful because, not only would it lose licensing fees and advertising revenues, viewers would find substitutes and stop watching its programming.[649] Further, Discovery asserts that it lacks the incentive to withhold or raise prices of its programming to competitors of New Charter because Malone's losses as an 8.7 percent owner of Discovery would outweigh any gain from new subscribers derived from his smaller interest in New Charter.[650] Discovery also claims that it has entered into distribution agreements with many OVDs, including Sony Play Station Vue, to avoid additional losses from its brand losing relevance to today's audience.[651] Discovery adds that it prices its

[645] Opposition at 47.

[646] Salop Decl. at para. 36.

[647] *Id*. at para. 79. Charter documents indicate that it **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* CHR2-DOJ-00000117761, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]; CHR2-DOJ-00000090296, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Charter documents also indicate that Charter would have preferred **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* CHR2-DOJ-00000101210, **[BEGIN HIGHLY CONF. INFO.]**
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[648] Discovery Response at 3. *See also* Discovery Feb. 10, 2016, *Ex Parte* Letter at 1. Documents submitted by the Applicants support this assertion. For example, BHN-000626726, **[BEGIN HIGHLY CONF. INFO.]**

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[649] Discovery Response at 5-6.

[650] *Id.* at 2-3, 7-8.

[651] Discovery Feb. 10, 2016, *Ex Parte* Letter at 2. We note that some of the OVD distribution agreements identified by Discovery appear to relate not to OVDs but to TV Everywhere carriage, some appear to limit content libraries or means of access to that content, and one is with a children's programming distributor now in bankruptcy.

programming nationally, and does not selectively price programming where Charter or, potentially, New Charter may face aggressive competition from other MVPDs.[652] Finally, Discovery points out that Malone has held his interests in Discovery and several MVPDs for years without withholding Discovery programming or other accusations of using these interests inappropriately.[653]

192. Starz similarly argues that Malone lacks the incentive or ability to cause Starz to disadvantage its own interests in favor of New Charter.[654] Starz further asserts that the Commission repeatedly has concluded, most recently in the *AT&T-DIRECTV Order*, that its program access rules are sufficient to prevent the exercise of programmers' influence to cause affiliated MVPDs to harm competing distributors.[655] Documents submitted by Liberty Broadband show that Starz programming **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[656] Starz also disputes allegations that it withheld its programming from Netflix, claiming that while its agreement with Netflix expired in 2012 when Netflix had license agreements with many other studios and produced its own programming, Starz made thousands of movies, TV Shows, and concerts available to Netflix beginning in 2008.[657] We note that, since filing its comments, Starz has made its content available to OVD distributor Amazon Prime and in April 2016 announced the launch of its standalone OTT service, following the lead of its more prominent rivals HBO and Showtime.[658]

193. Several commenters argue that these programming interests, combined with New Charter's larger number of subscribers and geographical footprint, would increase New Charter's incentive and ability to harm competition by withholding or raising the cost of this programming to competing MVPDs and OVDs.[659] ACA argues that increases in a vertically integrated MVPD's profits per subscriber increase its opportunity cost of selling its programming to rival distributors because the vertically integrated MVPD risks losing existing or potential subscribers to its rivals.[660] According to ACA, programmers that choose to incur these higher opportunity costs (rather than avoid them altogether

[652] Discovery Feb. 10, 2016, *Ex Parte* Letter at 1.

[653] *Id.*; Discovery Response at 3.

[654] Starz Response at 2.

[655] *Id.* (citing *AT&T-DIRECTV Order*, 30 FCC Rcd at 9194-95, paras. 167-170). Starz also asserts that the Commission has repeatedly concluded that any inadequacies in the program access rules or complaint procedures, "are industry-wide, not merger specific." *Id.* at 3 (citing *AT&T-DIRECTV Order*, 30 FCC Rcd at 9131, 9195, para. 170 & n.476).

[656] *See* LBR-0032749, **[BEGIN HIGHLY CONF. INFO.]**

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[657] Starz Response at 4-5 & n.7. Also, Netflix supports the transaction. *See* Netflix Jul. 15, 2015, *Ex Parte* Letter.

[658] Avery, Greg, "Starz Joins Amazon Prime in First Video Streaming Deal," *Denver Business Journal*, Dec. 8. 2015, http://www.bizjournals.com/denver/blog/boosters_bits/2015/12/starz-joins-amazon-prime-in-first-video-streaming.html; Press Release, Amazon, "Amazon Announces the Streaming Partners Program," Dec. 8, 2015, http://phx.corporate-ir net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=2121003; Press Release, Starz, "Startz Premiers Its First Subscription Streaming App," Apr. 5, 2016, http://starz mediaroom.com/index.php?s=43&item=1430.

[659] WGAW Petition at 4, 15-16; WGAW Feb. 10, 2016, *Ex Parte* Letter at 2; ACA Comments at ii-iii, 2, 10-12; US Telecom Nov. 12, 2015, *Ex Parte* Letter at 5; Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter at 2, 6.

[660] ACA Comments at 11.

by completely withholding their programming) would recoup them by extracting higher programming fees from rival distributors.[661] WGAW asserts that New Charter could temporarily or permanently foreclose access to or limit OVD licensing of affiliated programming, and urges the Commission to conduct a detailed foreclosure analysis of this programming.[662] WGAW further claims that temporary foreclosure of Discovery programming could cause customers of competing distributors to switch and then remain with New Charter, causing any temporary loss of Discovery programming revenue to ultimately be profitable to New Charter because Malone and Advance/Newhouse own "large" stakes in both companies.[663] Cincinnati Bell and WGAW also assert that Malone and his Liberty affiliates withheld Starz programming from Netflix,[664] and WGAW urges the Commission to require Liberty Broadband to divest its stake in New Charter.[665] US Telecom claims that Malone's "ownership and voting rights will give him great influence over both his content and distribution assets and, thus, the ability to act on his increased incentives."[666] Finally, Hawaiian Telcom seeks a prohibition on exclusive arrangements and access to local Time Warner Cable "social interest" channels "at fair market rates, subject to compulsory arbitration" as conditions for approval of the transaction.[667]

194. According to WGAW, the Discovery and Starz programming is "must have," with Discovery airing all five of cable's top unscripted series in the second quarter of 2015, and Starz ranked as the second-most widely distributed premium pay-TV network in the fourth quarter of 2014.[668] ACA and Hawaiian Telecom agree that Starz and Discovery are "must have" programming.[669] ACA points to the Commission's imposition of a condition requiring non-discriminatory access for Discovery programming in the *Liberty-DTV Order*, but admits that the condition only became operative for Discovery if Discovery ceased to be a cable satellite programming vendor subject to the program access rules (through Advance Newhouse's sale of its cable distribution interests).[670] USTelecom asserts that, "[t]he Applicants' alone have ownership interest in several marquee cable networks."[671]

195. Commenters further state that the Commission's program access rules and program access and baseball-style arbitration conditions imposed in past transactions involving vertically integrated MVPDs would be insufficient to protect New Charter's competitors, particularly smaller

[661] *Id.*

[662] WGAW Petition at 13; WGAW Reply at 12.

[663] WGAW Petition at 13.

[664] Cincinnati Bell Comments at 6; WGAW Petition at 15. According to WGAW, withholding Malone-affiliated programming can do particular damage to OVDs, with Malone and his affiliates repeatedly claiming a need to restrict Netflix from accessing their content. WGAW Petition at 15-16.

[665] WGAW Feb. 10 *Ex Parte* Letter at 5.

[666] US Telecom Nov. 12, 2015, *Ex Parte* Letter at 5. US Telecom asserts that, "[T]he Commission should adopt a condition that would limit Dr. Malone's ability to influence New Charter and to prohibit New Charter and Dr. Malone's programming interests from engaging in anticompetitive self-dealing by precluding him from exercising any right to influence the operation of New Charter." *Id.* at 10 & Attach. US Telecom also seeks a condition to prohibit the Applicants from giving to or receiving from other incumbent cable providers any undue preferences. *Id.*

[667] Hawaiian Telcom Comments at iii, 21; Hawaiian Telcom Reply at 5.

[668] WGAW Petition at 12; WGAW Reply at 7-8.

[669] ACA Comments at 14 (citing October 2015 weekly and quarterly rankings); Hawaiian Telcom Comments at 14 (citing 2014 rankings and *2012 Program Access Order*).

[670] ACA Comments at 16 (citing *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3301, para. 79).

[671] US Telecom Nov. 12, 2015, *Ex Parte* Letter at 5.

MVPDs, from these potential competitive harms.[672] Hawaiian Telcom claims that small MVPDs "will be unable to sustain the delay and financial expenditures attendant to prosecuting such a [program access] complaint, particularly given the proclivity of large cable ventures to vigorously contest programming-related complaints at the Commission."[673] ACA asserts that the Commission must impose program access and commercial arbitration conditions as it has in past transactions with modifications to make them more effective for smaller MVPDs, and that these conditions must be long term and require New Charter to apply to the Commission for relief at the expiration of the term.[674] ACA, supplemented by Cincinnati Bell, proposes several changes to the Commission's complaint[675] and arbitration[676] procedures used to enforce these conditions in order to make them more effective for smaller MVPDs.

196. *Discussion.* In considering the potential harm to competition from Malone's and Advance Newhouse's partial ownership of Discovery, Starz and other national programming and their potential future interests in New Charter, we conclude that the transaction is not likely to increase the incentive or ability of Malone or Advance/Newhouse to foreclose or raise prices of programming they control or influence to rival MVPDs or OVDs in order to favor New Charter. In reaching this conclusion, we have analyzed the record, Dr. Salop's programming foreclosure analysis,[677] and have conducted our own economic analysis regarding the possible foreclosure of Discovery programming.[678]

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[672] ACA Comments at iii, 18-30; Hawaiian Telcom Comments at 17; Cincinnati Bell Comments at 20.

[673] Hawaiian Telcom Comments at 17.

[674] ACA Comments at iii, 18-20, American Cable Association Reply at 14, 18 (ACA Reply).

[675] For the program access condition, ACA claims that an MVPD seeking to enforce the condition must have the right to bring a complaint comparing itself to an MVPD serving a comparable number of subscribers regardless of whether the comparable MVPD is the complainant's direct competitor or has geographical overlap. ACA Comments at iv, 22; ACA Reply at 17. ACA also protests that complaining MVPDs cannot access sufficient information on rates, terms and conditions offered to competing MVPDs to determine which MVPD would be best for a comparison to prove that rates, terms and conditions the complaining MVPD is being offered are discriminatory. ACA Comments at iv, 26-28. This problem, according to ACA, is exacerbated by the volume discount defense, which is difficult to disprove due to non-disclosure provisions in programming contracts. ACA Comments at iv, 23-25. ACA's proposed remedy is to impose conditions on New Charter-affiliated programmers to require them to: 1) provide requesting MVPDs evidence that the rates, terms and conditions offered are non-discriminatory compared to a similarly situated distributor; 2) allow MVPDs the opportunity to audit them annually to ensure against discrimination; and 3) refrain from withdrawing programming while a program access complaint is pending. ACA Reply at 17. Cincinnati Bell's proposed remedy for lack of information on rates, terms and conditions and non-disclosure provisions would be to require New Charter and Liberty to offer terrestrial-based competitors the same or better pricing and non-economic terms provided to New Charter within a given DMA, and to require the Applicants to produce all programming agreements. Cincinnati Bell Comments at 19-22.

[676] For the arbitration condition to protect competing MVPDs from uniform price increases, ACA claims that small and medium-sized MVPDs lack sufficient information to determine whether a vertically-integrated programmer is offering them rates above fair market value or to formulate a final offer that would be close enough to fair market value to have a chance of winning an arbitration. ACA Comments at v, 29-30. ACA therefore proposes that in arbitrations: 1) upon request of an MVPD, a New Charter-affiliated programmer must provide data and information that permits the MVPD to determine whether the offered prices, terms and conditions equate to fair market value; and 2) New Charter-affiliated programmers must submit a first final offer before an MVPD. ACA Reply at 17.

[677] *See generally* Salop Decl.

[678] The Applicants provide no analysis for the additional Starz, QVC, HSN, and iN Demand programming that would be affiliated with New Charter, and we conclude that such an analysis is unnecessary under the circumstances. To reliably estimate Malone's profits from foreclosure versus licensing, we would need information on the prices charged and profit margins on Starz customers of each MVPD carrying Starz. We consider it likely that, if performed, such an analysis would reach a similar conclusion, in part because the additional programming generally ranks below Discovery programming in ratings surveys. Dr. Salop asserts that Malone lacks an incentive

(continued….)

197. The results of our investigation indicate that, because of the relatively limited equity interests that Malone and Advance/Newhouse would have in New Charter relative to their existing equity interests in Discovery, any additional revenue they would gain from subscribers switching to New Charter because they cannot otherwise obtain Discovery programming would be far outweighed by Discovery's potential loss of licensing and advertising revenues—and ultimately, viewership—from failing to distribute this programming.[679] These limited future interests in New Charter lead to an analytical conclusion that differs from that drawn from a similar analysis performed for the Comcast-NBCU transaction, in which, in addition to its own RSNs and popular cable networks, Comcast obtained 100 percent ownership of NBCU's valuable programming, including NBC, one of the Big Four broadcast television networks.

198. While the results of our analysis are broadly consistent with the results reached by Dr. Salop, we have improved on his model in a number of ways. These improvements include the introduction of a bargaining framework that we believe more closely resembles the reality of Malone's and Advance/Newhouse's influence on Discovery's decisions regarding licensing its programming.[680] In addition, our analysis examines the possibility of Discovery programming foreclosure in all 210 TV markets and utilizes more plausible estimates of expected subscriber diversion resulting from a potential loss of this programming.[681] Finally, we improve upon Dr. Salop's estimates of expected subscriber value to obtain revised estimates of the potential costs and benefits to a foreclosure strategy.[682] While these additions and modifications do not ultimately change our conclusion regarding the lack of a post-transaction incentive to foreclose Discovery programming, we believe that the analysis detailed in Appendix C presents a more thorough and accurate examination of Discovery programming foreclosure than the analysis submitted by the Applicants.[683]

199. For the same reasons, including the relative equity ratios and low diversion ratios, discussed in the Appendix C, we conclude that Malone and Advance/Newhouse lack the incentive to withhold programming from OVDs. Determining whether it is profitable to withhold programming from a nationally-distributed OVD is more complicated than determining whether it is profitable for an MVPD to withhold its programming from an overlapping and competing MVPD. Malone and/or Advance/Newhouse would forego revenues nationwide whereas New Charter has a limited footprint from which to obtain or retain subscribers. In addition, both Discovery and Starz have expanded their online distribution efforts since the Applicants announced the transaction. As mentioned above, Starz has launched on Amazon Prime and released its own direct-to-consumer OTT service. **[BEGIN HIGHLY CONF. INFO.]**

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to influence New Charter to withhold or raise prices for Starz because HBO and Showtime are strong substitutes and thus not many subscribers would switch to New Charter to obtain Starz programming. Salop Decl. at para. 80; *see also supra* notes 643 & 644. Further, commenters alleging possible harm to competition associated with Starz programming have not provided any supporting analysis.

[679] *See* Salop Decl. at paras. 11, 33, 56, 64. We concur with the Applicants' assessment that, due to difficulty in making assumptions about subscriber expectations and inertia and the effect of the partial ownership interests in Discovery of Malone and Advance/Newhouse, a temporary foreclosure analysis for this transaction would be complex, unreliable and ultimately not helpful in evaluating potential incentives to cause competitive harm. *See id.* at paras. 67-73.

[680] *See* Appendix C, Section III.C.2.c.(i).

[681] *See* Appendix C, Section III.C.b(v)(a) (utilizing within-DMA diversion rates instead of the nationwide diversion estimates presented by Dr. Salop).

[682] *See* Appendix C, Section III.C.2.b.(v)(b).

[683] *See generally* Appendix C, Section III.C.2.c.(iii)(b), para. 250.

[END HIGHLY CONF. INFO.].[684] Undertaking such efforts and commitments, especially after the Applicants announced the transaction, further demonstrates that neither Malone nor Advance/Newhouse are likely to foreclose Discovery or Starz programming from OVDs as a result of the transaction. We further note that no OVDs claim in this proceeding that New Charter would withhold or raise prices of Discovery or Starz programming for OVDs.

200. We further conclude that neither Malone nor Advance/Newhouse would likely be able to cause New Charter, Discovery, or Starz to withhold or raise prices of their programming. While the ownership and voting interests, and overlapping board memberships of Malone and Advance/Newhouse with Discovery and Starz are sufficient to meet our program access attribution standard, they do not lead inevitably to a conclusion that Malone and Advance/Newhouse can control the distributors or prices for this programming. Further, while petitioners provide only vague assertions regarding Malone's influence,[685] the Applicants and Discovery provide substantial evidence of controls to prevent such influence, including independent director review of program licensing decisions, fiduciary obligations, and conflict of interest rules.[686]

201. Similarly, petitioners and commenters provide inadequate justification for the program access and arbitration conditions they ask the Commission to impose for Discovery and Starz programming. The Commission has imposed such conditions on cable networks in only two previous transactions and on the basis of considerations not present here. First, in the Liberty Media-DIRECTV transaction, in which Discovery programming was specifically at issue, the Commission found incentive and ability to withhold or discriminate in favor of DIRECTV.[687] The Commission imposed the condition because Liberty Media and Malone had attributable interests in and significant control over Discovery. The condition was needed to address the possibility that Advance/Newhouse, which had a 33 percent interest in Discovery and interests in a cable operator, could divest its interest in Discovery, in which case Discovery would no longer be a "cable satellite programming vendor subject to the program access rules."[688] Such a condition for Discovery and Starz programming is unnecessary here because New Charter will have an attributable interest in Discovery and, as a cable system operator, New Charter will continue to be subject to the program access rules. Further, the relationship between Discovery, Malone, and the Applicants is far more attenuated today than it was at the time of the Liberty Media-DIRECTV transaction, which occurred before Discovery was a publicly traded company.

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[684] BHN-000326927, **[BEGIN HIGHLY CONF. INFO.]**

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[685] *See, e.g.*, Public Knowledge et al. Petition at 19.

[686] Application at 54; Charter Response to Information Request at 109, 112, 113-116; Discovery Response at 1, 3.

[687] *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3299-3303, paras. 71-83. Liberty Media also was acquiring nation-wide distributor DIRECTV, plus three RSNs in Seattle, Pittsburgh and Denver serving approximately 8.6 million homes and carrying sporting events from the MLB, NFL, NHL and NBA. *Id.* at 3305, para. 87. The Commission accepted Liberty Media's commitment to abide by arbitration conditions similar to those imposed in the *News Corp.-Hughes Order*. *Id*. at 3268, 3305-06, 3306-07, paras. 5, 88, 90.

[688] *See Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3299-3303, paras. 71-83. *See also* Starz Response at 4.

202. Second, in the Comcast-NBCU transaction, Comcast and NBCU directly owned a broad array of broadcast, RSN, and cable programming.[689] The Commission found strong incentives and ability to withhold or raise prices of the affiliated programming and imposed an arbitration condition for all such programming and an additional conditions specifically to protect OVDs.[690] Again, several considerations underlying the Commission's decision in that case are absent here. First, New Charter's far more limited affiliated programming would not be completely owned by New Charter, Advance Newhouse, Liberty Broadband, or Malone, so an incentive to withhold or raise prices is limited. Second, while several commenters claim that Discovery and Starz programming is the type that would cause subscribers to switch to New Charter if withheld or made more expensive,[691] the Applicants claim that Discovery and Starz programming is not the "sort that concerned the Commission when it reviewed the merger between Comcast and NBC-Universal."[692]

203. Dr. Salop asserts that subscribers foreclosed from Discovery programming would turn to readily-available substitutes.[693] Discovery similarly asserts that subscribers would find substitutes for its programming rather than switch MVPDs to obtain it,[694] while Starz asserts that the program access rules are sufficient to ensure access to its programming.[695] Our economic analysis, based on the record evidence, demonstrates that Discovery and Starz have **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO]. Determining whether there are adequate substitutes for Discovery and Starz programming in this proceeding, however, is unnecessary because we conclude that neither Malone nor Advance/Newhouse has an economic incentive to cause New Charter to withhold or raise prices of Discovery or Starz programming to MVPDs or OVDs.

204. The additional transactions that commenters claim as support for conditions on Discovery and Starz programming imposed conditions only on RSN or broadcast programming. For example, in the News Corp.-Hughes transaction, the Commission found an incentive and ability to engage in uniform price increases, and imposed a commercial arbitration condition on the merged company's broadcast and RSN programming.[696] In the Adelphia transaction, the Commission imposed an arbitration condition for Comcast's eight RSNs and SportsNet New York, in which Time Warner Cable and Comcast held a joint

[689] NBCU fully owned national cable networks Bravo, CNBC, CNBC World, MSNBC, MUN2, Oxygen. Sleuth, SyFy, UnversalHD and USA, and held a majority interest in Chiller and minority interests in A&E Television Networks, ShopNBC and the Weather Channel. Comcast held total or partial interests in the following national cable networks: E!, Versus, Style, G4, PBSKIDS, Sprout, TV One, FEARnet, The Comcast Network, Comcast Hometown Network, C2, CN100, Comcast Television Network, New England Cable News, Pittsburgh Cable News, Current Media, Retirement Living Television, Saigon Broadcasting Television Network and Television Korea 24. *Comcast-NBCU Order*, 26 FCC Rcd at 4238, 4243-44, 4411, 4414-15, paras. 10, 14 & App. D.

[690] *Comcast-NBCU Order*, 26 FCC Rcd at 4252-59, 4262-74, paras. 34-48, 60-90.

[691] WGAW Petition at 12; WGAW Reply at 7-8; ACA Comments at 14, 16; Hawaiian Telcom Comments at 14; US Telecom Nov. 12, 2015, *Ex Parte* Letter at 5.

[692] Application at 47.

[693] Salop Decl. at paras. 36-37.

[694] Discovery Response at 3, 5-6.

[695] Starz Response at 5-6.

[696] *News Corp.-Hughes Order*, 19 FCC Rcd at 514, 536, 552-55, 572-76, paras. 87, 134, 172-179, 216-226. The merged entity owned or held attributable interests in 19 RSNs reaching 79 million subscribers and carrying games of 65 of the 80 MLB, NBA, and National Hockey League teams. *Id.* at 514, 536, paras. 87, 134.

interest, all of which aired professional sports programming.[697] In addition, prior to the transaction, Comcast had foreclosed or raised the price of its RSN programming to rival MVPDs.[698] In this transaction, however, New Charter would own or control distribution rights for only a few RSNs with major league sports programming, and the Applicants have committed to arbitration for SportsNet LA, the only Time Warner Cable RSN currently not licensed to competing MVPDs.

205. For these reasons, we decline to impose the program access and arbitration conditions suggested by commenters. We also decline to impose other proposed conditions to address claimed harms not specific to this transaction. We further find, as we did in the *AT&T-DIRECTV Order*, that any issues with our program access rules and complaint and arbitration procedures claimed by ACA and other commenters are not specific to this transaction and more appropriately addressed in a rulemaking of general applicability.[699]

F. Access to Online Content

206. In this section, we consider whether the proposed transaction would increase the Applicants' incentive or ability to leverage New Charter's post-transaction strength as a buyer in the video programming market to harm entry or competition by OVDs in the video distribution market. In particular, we consider whether the transaction would increase New Charter's incentive or ability to exercise its enhanced buying power in the upstream programming market to induce programmers to enter into contractual provisions, including alternate distribution method (ADM), most favored nation (MFN), and similar contractual provisions, which may have the effect of restricting online distribution. We conclude that the transaction increases the risk that New Charter could obtain terms that further restrict programmers' ability to license content to OVDs as compared to Time Warner Cable today.

207. An ADM provision restricts a programmer's ability to distribute its programming via alternate, non-MVPD distribution means (e.g., online platforms), often for a specified period of time (sometimes referred to as a "window") following the programming's original airing on a linear service.[700] ADM provisions may either restrict such distribution outright or until certain conditions are met. An MFN provision generally entitles a distributor to more favorable economic or non-economic contract terms that a programmer has provided to another distributor after the first distributor's contract was negotiated. MFN rights can be conditional or unconditional. A conditional MFN provision entitles a distributor to certain contractual rights that the programmer has granted to another distributor, subject to the acceptance of related terms and conditions contained in that other distributor's agreement. An unconditional MFN provision, by contrast, contains no such requirement that the distributor accept the related terms and conditions before the first distributor is entitled to the MFN rights.

208. *Positions of the Parties.* Commenters argue that the transaction should be viewed as a merger of distinct buyers of programming, and not merely a merger of providers of retail pay-TV services.[701] INCOMPAS argues that the Commission should compare the size of existing Charter to New Charter in examining the increase in bargaining leverage that would result from the transaction.[702] DISH

[697] *Adelphia-TWC Order*, 21 FCC Rcd at 8207, 8273-77, 8274-76, paras. 5, 155-65.

[698] *Id.* at 8262, 8263, paras. 130, 132. For example, Comcast had used the "terrestrial loophole" in the program access rules, which the Commission has now closed, to withhold Comcast SportsNet Philadelphia from rival MVPDs. *Id*. at 8264, para. 134. *See also 2010 Program Access Order*, 25 FCC Rcd at 777-780, paras. 46-49.

[699] *AT&T-DIRECTV Order*, 30 FCC Rcd at 9194, para. 167.

[700] *See supra* note 442; *see also Promoting the Availability of Diverse and Independent Sources of Video Programming*, Notice of Inquiry, MB Docket No. 16-41, FCC 16-19, at 4, para. 10 (2016).

[701] Public Knowledge et al. Petition at 10-11; COMPTEL Petition at 5-7; WGAW Petition at 3.

[702] COMPTEL Petition at 6.

argues that New Charter's smaller size relative to Comcast does not negate New Charter's increased incentive and ability to harm OVDs.[703] Commenters argue that, given its post-transaction market share, New Charter would be a "must have" distribution platform for many programmers.[704]

209. Commenters also argue that New Charter would use its larger size and additional bargaining leverage to extract greater concessions from programmers to the detriment of both the programmers and competing distributors.[705] Accordingly, commenters argue that New Charter would be able to obtain more, or more onerous, contractual provisions from programmers that would inhibit rival distributors' access to programming.[706] In particular, commenters argue that New Charter would be better positioned to negotiate for ADM, MFN, and similar contractual provisions that would limit the incentive or ability of a programmer to distribute programming via online platforms.[707] Commenters contend that ADM and MFN restrictions imposed by major distributors limit the ability of independent networks to

[703] DISH Petition at 25-26.

[704] Public Knowledge et al. Petition at 9-10; Cincinnati Bell Comments at 11; Cincinnati Bell Reply at 3-4; Public Knowledge Reply at 8; *see also* Aspire Channel, LLC & UP Entertainment, LLC Comments at 3-4 (Aspire-UP Comments). In particular, some commenters argue that New Charter would have excessive bargaining leverage in important geographic markets where its post-transaction market share would exceed its national market share. Public Knowledge et al. Petition at 9-10; NAB Petition at 5-10, 14; *see also* Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter at 6 (asserting that New Charter would be "the dominant cable/broadband provider in the country's largest and most important geographic markets including New York City, Los Angeles, Dallas-Ft. Worth, among many others").

[705] DISH Petition at 63-65; COMPTEL Petition at 5-13; WGAW Petition at 16-17, 24; Cincinnati Bell Comments at 2-3, 10-11, 15; Hawaiian Telcom Comments at 17-20; Cincinnati Bell Reply at 1-6; Hawaiian Telcom Reply at 3-5; INCOMPAS Reply at 6-8; NAB Reply at 2-8; NTCA Reply at 4-6; Public Knowledge Reply at 7-9; WGAW Reply at 26; INCOMPAS Dec. 4, 2015, *Ex Parte* Letter at 1; Letter from Charles Herring, President, Herring Networks, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2-3 (filed Dec. 18, 2015) (Herring Networks Dec. 18, 2015, *Ex Parte* Letter); Public Knowledge Feb. 8, 2016, *Ex Parte* Letter at 1-2; Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter at 2, 6, 10; WGAW Feb. 10, 2016, *Ex Parte* Letter at 3-5; beIN SPORTS and Sports Fans Coalition Feb. 15, 2016, *Ex Parte* Letter at 1; beIN SPORTS and Sports Fans Coalition Mar. 17, 2016, *Ex Parte* Letter at 1; Letter from David Goodfriend to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Mar. 21, 2016) (beIN SPORTS Mar. 21, 2016, *Ex Parte* Letter) (proposing ADM condition for the distribution of independent sports networks); DISH Feb. 26, 2016, *Ex Parte* Letter at 2. Hawaiian Telcom asserts that New Charter should be prohibited from entering into exclusive programming arrangements with content providers. Hawaiian Telcom Comments at 21.

[706] DISH Petition at 4, 63-65, 68; Public Knowledge et al. Petition at 2-3, 9-14; WGAW Petition at 17, 24; Public Knowledge Reply at 5-9; Public Knowledge Feb. 8, 2016, *Ex Parte* Letter at 1; Letter from Gene Kimmelman, Chief Executive Officer and President, Public Knowledge, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Mar. 14, 2016); WGAW Feb. 10, 2016, *Ex Parte* Letter at 4. In addition, commenters discuss generally the importance of online video services in providing consumers with new ways to access content and the risks that contractual provisions in MVPD licensing agreements could stifle the emergence of such services. *See, e.g.*, Letter from Thomas O. Barnett, Covington & Burling LLP, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Feb. 4, 2016); Letter from Mace Rosenstein, Counsel for 21st Century Fox, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Feb. 4, 2016).

[707] DISH Petition at 64-65, 68; Public Knowledge et al. Petition at 12-14; WGAW Reply at 26; Public Knowledge Reply at 5-9; beIN SPORTS and Sports Fans Coalition Feb. 15, 2016, *Ex Parte* Letter at 1; beIN SPORTS and Sports Fans Coalition Mar. 17, 2016, *Ex Parte* Letter at 1; beIN SPORTS Mar. 21, 2016, *Ex Parte* Letter; DDISH Feb. 26, 2016, *Ex Parte* Letter at 2. Specifically, DISH contends that New Charter could "employ a number of contractual terms to limit competing OVDs' ability to access programming" and identifies five such examples. DISH Petition at 64; *see also* Stop Mega Cable Feb. 9, 2016, *Ex Parte* Letter at 10 (providing examples of types of "contractual restrictions on third-party content providers" that New Charter could impose to harm OVDs).

distribute their content via the Internet.[708] In particular, Herring Networks alleges that its current agreement with Charter contains an ADM provision that prevents Herring Networks from distributing the linear feed of one of its networks via online platforms.[709] In this regard, Herring Networks claims that it "made multiple attempts to negotiate the anticompetitive provision out of its agreement with Charter Communications but was unsuccessful."[710]

210. Time Warner Inc. alleges that Charter representatives have made statements, both in the course of programming negotiations and in public forums, indicating a willingness to retaliate against programmers that pursue over-the-top distribution.[711] In addition, DISH, which operates Sling TV as a linear online video service, alleges that "Sling TV has had difficult negotiations with key programmers in its attempt to secure online distribution rights" and states that it "has frequently been informed that certain programmers' agreements with certain cable operators prohibit them from, or restrict them in, granting

[708] Aspire-UP Comments at 4; Letter from Charles Herring, President, Herring Networks, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attach. at 6-10 (filed Feb. 12, 2016) (Herring Networks Feb. 12, 2016, *Ex Parte* Letter); *see also* Letter from Michael G. Fletcher, Chief Executive Officer, Ride Television Network, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Feb. 3, 2016) (RIDE TV Feb. 3, 2016, *Ex Parte* Letter) (describing "the current practice by MVPDs of requiring 'most favored nation' treatment by programmers but not offering the same to independent programmers."); Letter from Michael G. Fletcher, Chief Executive Officer, Ride Television Network, Inc., to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Mar. 14, 2016) (RIDE TV March 14, 2016, *Ex Parte* Letter) (stating that "AMDs preventing independent networks from distributing their content to over-the-top 'OTT' video providers are anticompetitive"); Public Knowledge Feb. 8, 2016, *Ex Parte* Letter at 1-2 (asserting that "[s]maller programmers in particular can be prevented from exploring new business models and future sources of revenue by such provisions, and even larger programmers may find that complex and interrelated contractual agreements can constrain how they can offer programming in new ways to viewers."); Letter from Charles Herring, President, Herring Networks, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attach. 1 at 1 (filed Feb. 19, 2016) (Herring Networks Feb. 19, 2016, *Ex Parte* Letter) (contending that Charter's use of ADMs has "hindered independent programmers, video competition in the marketplace, including small companies such as SkyAngel and large companies such as Intel and its former *On Cue* video product, and consumers.").

[709] Letter from Charles Herring, President, Herring Networks, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Nov. 16, 2015) (Herring Networks Nov. 16, 2015, *Ex Parte* Letter); Herring Networks Dec. 18, 2015, *Ex Parte* Letter at 2; *see also* Herring Networks Feb. 12, 2016, *Ex Parte* Letter, Attach. at 8 ("Charter Communications has forced multiple independent programmers, such as Herring Networks, Inc., to accept ADM clauses.").

[710] Herring Networks Nov. 16, 2015, *Ex Parte* Letter at 2; Herring Networks Dec. 18, 2015, *Ex Parte* Letter at 2. Herring Networks notes that after sending formal notice of termination to Charter and pointing out its concerns with the provision in question, Charter agreed to modify the agreement. *Id.*

[711] Letter from Steven G. Bradbury, Dechert LLP, Counsel for Time Warner Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Jan. 13, 2016) (Time Warner Inc. Jan. 13, 2016, *Ex Parte* Letter); *see also* Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter at 10 (arguing that New Charter could "[t]hreaten third-party content providers that granting rights to OVDs will impact their relationship with [New Charter]"); WGAW Feb. 10, 2016, *Ex Parte* Letter at 3 (claiming that New Charter "does not want content providers, such as television networks, to go over the top . . . and offer content directly to consumers online"); DISH Feb. 12, 2016, *Ex Parte* Letter, Attach. at 21 (arguing that "Charter should be prevented from expanding its leverage with which to threaten programmers to dissuade them from licensing their content to *Sling TV* and other OVDs."); Stop Mega Cable Coalition Feb. 24, 2016, *Ex Parte* Letter at 7 (stating that Tom Rutledge has "issued broad threats to end carriage of programmers that seek to distribute their content on competing OTT platforms."). Herring Networks argues that, in part to minimize the possibility of retaliatory behavior, the Commission should impose a condition that requires New Charter to extend carriage to independent programmers that meet certain threshold qualifications. Herring Networks Feb. 12, 2016, *Ex Parte* Letter, Attach. at 2, 18; Herring Networks Feb. 19, 2016, *Ex Parte* Letter at 1, Attach. 1 at 1-2.

such rights."[712] Commenters assert that if the Commission approves the transaction it should prohibit New Charter from restricting the ability of third-party programmers to grant online rights to OVDs, including through the use of MFN provisions.[713] Commenters also argue that MFN provisions limit the ability of programmers and other input providers to craft agreements that accommodate the unique needs of new entrants and smaller distributors.[714] Cincinnati Bell urges the Commission to ban New Charter from enforcing any MFN provisions in existing Applicant agreements for essential inputs, and thus provide terrestrial (i.e., non-satellite) MVPDs that compete head-to-head with New Charter the flexibility to uniquely structure their agreements without triggering New Charter's MFN provisions.[715]

211. As noted above, the Applicants concede that "the upstream market for the purchase of video programming may be national in some respects."[716] Nevertheless, the Applicants argue that a monopsony model is inapposite to the programming market, and that New Charter's projected 17 percent national share of video subscribers would be far too small to trigger such concerns.[717] They note that New Charter would be the third-largest MVPD, behind a combined AT&T/DIRECTV (with a 26 percent share) and Comcast (with a 22 percent share).[718] The Applicants further note that New Charter's share would be significantly less than the 30-percent threshold the Commission previously identified in setting its (now vacated) horizontal cable ownership cap.[719]

212. The Applicants also argue that the transaction is "unlikely to materially enhance New Charter's bargaining power in negotiations for video programming as compared to Time Warner

[712] DISH Petition at 64; *see also id.* at 68.

[713] DISH Petition at 6, 68; *see also* Herring Networks Feb. 12, 2016, *Ex Parte* Letter, Attach. at 2, 18; Herring Networks Feb. 19, 2016, *Ex Parte* Letter at 1; RIDE TV March 14, 2016, *Ex Parte* Letter at 1.

[714] Public Knowledge et al. Petition at 13; Cincinnati Bell Comments at 15.

[715] Cincinnati Bell Comments at 16. Cincinnati Bell also urges the Commission to establish a confidential database administered by a third party that would identify for each essential input (including content, equipment, technology, and service agreements) all material economic and non-economic terms and conditions New Charter obtains. *Id.* at 16-17. Cincinnati Bell argues that such a database would aid competitors in negotiating fair and competitive agreements with providers of essential inputs. *Id.*

[716] Application at 54 n.149.

[717] *Id.* at 54; Opposition at 61-64; Opposition, Charter-TWC-BHN Efficiencies Analysis, Reply Declaration of Michael Katz, Sarin Chair in Leadership and Strategy at the University of California at Berkeley, transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at paras. 68-73 (filed Nov. 2, 2015) (Katz Reply Decl.); *see also* Free State Comments at 17; ITIF Comments at 3-5.

[718] Application at 55; Katz Reply Decl. at para. 77; *see also* Free State Comments at 17. The Applicants also contend that New Charter would be unable to harm OVDs because it would be the largest MVPD in only four of the top 20 DMAs. Application at 47.

[719] Application at 56 (citing *Comcast Corp. v. FCC*, 579 F.3d 1 (D.C. Cir. 2009); *The Commission's Cable Horizontal and Vertical Limits*, Fourth Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 2134 (2008); *Time Warner Cable Entm't Co., L.P. v. FCC*, 240 F.3d 1126 (D.C. Cir. 2001)); *see also* Free State Comments at 17. In the cases the Applicants cite, the harm the Commission sought to address—and that the court considered on review—was whether an MVPD with 30 percent market share would be large enough to deny minimum viable scale to a programmer and thereby reduce competition or diversity in the video programming market. Our present concern is not limited to whether New Charter's scale would enable it to unilaterally preclude the viability of a programmer. Instead, we are concerned here with whether New Charter's size would enable it to exert bargaining power over a programmer such that it could obtain more, or more restrictive, contractual terms that would limit the online distribution of programming. Accordingly, we do not find New Charter's compliance with the Commission's prior 30-percent cap determinative to questions regarding Charter's increased bargaining power.

Cable."[720] The Applicants contend that because their individual footprints generally do not overlap, and because programming is a non-rivalrous good (i.e., its sale to one purchaser does not reduce the amount available for sale to another purchaser), the transaction would not reduce competition among buyers in the upstream video programming market.[721] In addition, the Applicants argue that programmers have significant bargaining leverage today, and would continue to have access to numerous distribution options, including online distribution outlets, following the transaction.[722] Moreover, Charter argues that, contrary to the assertions of Time Warner Inc., it is "enthusiastic about the rise of OTTs like HBO Now" because they "help drive demand for broadband service" and "provide customer choice and thus lessen a programmer's ability to tie and increase programming prices on an otherwise non-market basis."[723] Finally, the Applicants cite various pro-competitive and pro-consumer justifications for ADM and MFN provisions, including greater efficiency in programming negotiations and argue that, to the extent there are concerns about such contracting practices, they are applicable industry-wide and should not be addressed through a transaction proceeding.[724]

213. *Discussion.* We find that the transaction likely would increase the Applicants' incentive and ability to use bargaining leverage in the upstream market to foreclose OVDs from content they seek to license. With additional scale, New Charter likely would be more able than Time Warner Cable today to extract from programmers restrictive contractual provisions that would further restrict the supply of programming to OVDs, thus harming the ability of OVDs to offer consumers more attractive competitive alternatives to New Charter and other traditional pay-TV competitors.[725]

214. As noted above, we find that the market for buying and selling cable network programming sold on a nationwide basis is national.[726] The Applicants argue that even within a national programming market, they do not compete with each other as buyers of programming.[727] We disagree. In

[720] Application at 57; *see also* Katz Reply Decl. at paras. 75-85.

[721] Application at 57-58.

[722] *Id.*; Opposition at 65; Katz Reply Decl. at paras. 78-82.

[723] Charter Feb. 9, 2016, *Ex Parte* Letter at 3.

[724] Opposition at 65-68; Katz Reply Decl. at paras. 111-30.

[725] We do not reach a determination as to whether New Charter's increased bargaining leverage would result in a greater ability to negotiate for programming cost reductions. *See, e.g.*, Evans Decl. at paras. 9-12, 16-20, 35-68, 107-18 (offering economic analysis to demonstrate that New Charter would be able to use its increased bargaining leverage post-transaction to negotiate for lower affiliate fees from programmers); Letter from Markham C. Erickson, Counsel for INCOMPAS, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Jan. 27, 2016) (INCOMPAS Jan. 27, 2016, *Ex Parte* Letter) (urging the Commission to explore "the possibility of Charter joining a video-purchasing cooperative . . . to achieve terms from programmers similar to those that would be possible as a result of the Transaction" and comparing "INCOMPAS's findings regarding the harm posed by the proposed Transaction to those found by the Commission in the AT&T/DIRECTV transaction"); Charter Jan. 29, 2016, *Ex Parte* Letter at 1-3; Katz Surreply Decl. at paras. 7-33 (refuting INCOMPAS's arguments and asserting that consumers would benefit from transaction-specific programming cost savings); Letter from Markham C. Erickson, Counsel for INCOMPAS, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-7, Reply Declaration of Dr. David S. Evans, Attach., at paras. 3-35 (filed Feb. 12, 2016) (Evans Reply Decl.) (offering Dr. Evans's responses to Dr. Katz's criticisms of his analysis). As discussed elsewhere in this order, we do not find that programming cost savings generated by the transaction would result in consumer harm. *See* Sections V.D, V.G.6, and VI.B. The Commission previously has found that such savings may represent a transfer of surplus between video programmers and video distributors, and to the extent such savings offset rising programming costs and are passed through to consumers, they could be considered a benefit. *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9243, para. 291; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20637, para. 211.

[726] *See supra* Section V.E.1.

[727] *See* Application at 57-58.

prior transactions, the Commission has recognized the potential of horizontal consolidation among MVPDs to increase buying power in the video programming market.[728] We find that because cable programmers seek distribution for identical (or nearly identical) programming across multiple distributors on a national or regional scale, Time Warner Cable and Charter represent alternative distribution channels for a programmer seeking to reach a significant number of subscribers.[729] Accordingly, we find that Time Warner Cable and Charter compete as buyers of programming in the national market (as well as in certain regional markets where both companies have a presence today) and that the transactions therefore would reduce the number of purchasers for programming.[730] The loss of Time Warner Cable and Charter as separate distributors likely would reduce competition among the remaining buyers and thereby increase the combined entity's bargaining leverage relative to programmers post-transaction.

215. In addition, evidence in the record indicates that larger MVPDs generally are able to obtain more favorable rates, terms, and conditions than smaller MVPDs.[731] For instance, the Applicants' expert, Dr. Michael Katz asserts that larger MVPDs generally pay lower programming fees per channel per subscriber, but concludes that this may not be due solely to increases in bargaining power.[732] Dr. David Evans, INCOMPAS's economic expert, agrees with Dr. Katz that larger MVPDs pay less for programming, but Dr. Evans places greater emphasis on the increased bargaining power of larger MVPDs in his analysis.[733] Dr. Evans, using publicly available data, performs a regression analysis to study the relationship between size and video programming prices and also a statistically significant negative relationship between average video programming cost per subscriber and the number of subscribers.[734] Dr. Evans subsequently analyzes monthly programming payments relative to a smaller MVPD, Cablevision, and finds that larger cable companies pay lower programming payments relative to it.[735]

216. Consistent with these conclusions, the Applicants state that Time Warner Cable, negotiating on behalf of 12.8 million video subscribers, pays approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent less for programming than Charter, which serves

[728] *See Adelphia-TWC Order*, 21 FCC Rcd at 8249, 8253-55 paras. 97- 99, 108-10, 114; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20655-56, paras. 255-56; *see also 2010 DOJ/FTC Horizontal Merger Guidelines* § 12 at 32 ("Mergers of competing buyers can enhance market power on the buying side of the market, just as mergers of competing sellers can enhance market power on the selling side of the market.").

[729] *See 2010 DOJ/FTC Horizontal Merger Guidelines* § 12 at 32-33 (noting that, in evaluating mergers of competing buyers, the antitrust agencies "focus on the alternatives available to sellers in the face of a decrease in the price paid by a hypothetical monopolist").

[730] *See Adelphia-TWC Order*, 21 FCC Rcd at 8249, para. 97.

[731] *See, e.g.*, Opposition at 25 (asserting that "programming cost savings, which result from the scale of the merged entity, are simply not achievable absent the merger"); Katz Reply Decl. at para. 16 (noting that "industry participants and financial analysts have found that larger MVPDs generally pay lower programming fees per channel per subscriber than do smaller MVPDs" and that "[t]he industry's use of size-based price MFN clauses also suggests that content owners charge lower (per-channel, per-subscriber) content prices to larger MVPDs") (citations omitted); *see also Adelphia-TWC Order*, 21 FCC Rcd at 8236, para. 65 ("substantial discounts are negotiated based on the number of MVPD subscribers and other factors").

[732] *See* Katz Reply Decl. at paras. 14-17; Katz Surreply Decl. at para. 16. Katz contends there are two mechanisms through which a transaction may result in lower programming fees for the combined entity—economies of scale and increased or decreased bargaining position. *See* Katz Reply Decl. at para. 15.

[733] *See* Evans Decl. at paras. 53-55; *see also* Evans Reply Decl. at para. 6 (citing Michael L. Katz, An Economic Assessment of AT&T's Proposed Acquisition of DIRECTV, MB Docket No. 14-90, para. 113 (filed June 11, 2014)).

[734] *See* Evans Decl. at paras. 56-57.

[735] *See id.* at para. 59.

approximately 4.2 million video subscribers.[736] The Applicants assert that applying Time Warner Cable's generally lower programming rates to Charter's video subscribers post-transaction would generate approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million in cost savings by the third year after closing, or roughly **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per Charter subscriber per month.[737] In addition, the Applicants contend that these estimates are "conservative" because they account only for differences in scale between Charter and Time Warner Cable and do not assume any additional savings that could be associated with the greater scale of New Charter versus Time Warner Cable.[738]

217. In addition, internal documents indicate that Time Warner Cable has long recognized that increased size leads to lower rates in negotiations with programmers,[739] and that Charter **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[740] Following the transaction, New Charter would negotiate on behalf of approximately 17 million video subscribers, or 17 percent of MVPD subscribers nationwide.[741] That is approximately 33 percent more subscribers than Time Warner Cable negotiates for today. With 17 million video subscribers post-transaction, New Charter's value as a distribution outlet is likely to be such that programmers would be less likely to push back successfully against its demands in programming negotiations. For these reasons, we find that New Charter likely would obtain additional bargaining leverage in programming negotiations as a result of the transaction and would have an increased incentive and ability to use that leverage in ways that harm online rivals.

218. The Applicants argue that the transaction would not significantly improve their bargaining position because programmers already have significant bargaining leverage of their own.[742] We disagree. The bargaining leverage of any particular programmer is irrelevant to Charter's change in

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[736] *See* Application at 8, 10, 12; Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed July 10, 2015) (Charter July 10, 2015, *Ex Parte* Letter); Charter Response to Information Request at 271; Katz Reply Decl. at paras. 18-20. Time Warner Cable negotiates for programming acquisition on behalf of both itself and Bright House. *See* Application at 12; Advance/Newhouse Response to Information Request at 27.

[737] *See* Charter July 10, 2015, *Ex Parte* Letter at 1-2; Scott Morton Decl. at para. 23; Charter Response to Information Request at 268-73; Opposition at 25-27; Katz Reply Decl. at paras. 10, 12, 20, 22. Based on the **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** monthly per subscriber programming payment reduction calculated by the Applicants, the total monthly programming payment reduction for Charter would be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million. New Charter would have approximately 17 million subscribers (4.2 million from Charter plus 10.8 million from Time Warner Cable plus 2 million from Bright House). Accordingly, New Charter's monthly per subscriber total average programming payment reduction (i.e., the total monthly programming payment reduction divided by the total number of subscribers for New Charter) would be approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[738] *See* Katz Reply Decl. at para. 21; Charter Response to Information Request at 268.

[739] *See* TWC-DOJ-00205019 at 1, **[BEGIN HIGHLY CONF. INFO.]**

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[740] *See* CHR-DOJ-0000796177 at 4, **[BEGIN HIGHLY CONF. INFO.]**

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[741] Application at 54-55.

[742] *See id.* at 57-58; Opposition at 65; Katz Reply Decl. at paras. 78-82.

bargaining leverage as a result of the transaction.[743] Moreover, the Applicants argue that New Charter's bargaining leverage would be constrained because programmers would have numerous other distribution outlets available.[744] While we agree that programmers have available other MVPD and OVD distribution options, some of those options may not provide the unique combination of linear and VOD distribution that programmers find most desirable and that New Charter would be able to offer.[745]

219. As commenters note, one way for New Charter to use its additional bargaining leverage is by negotiating for contractual provisions that limit the ability of programmers to distribute their programming online.[746] Moreover, as noted above, the increased benefits that would flow back to New Charter across its larger footprint would give it an increased incentive to harm online rivals.[747] Notably, Time Warner Inc. cites statements made by Charter's representatives that suggest New Charter "would be inclined to take action directed at programmers in response to the development of 'over the top,' or 'OTT,' services with the purpose and/or effect of slowing down the development of OTT options to the detriment of consumers."[748] In addition, Herring Networks has submitted into the record one example of a provision in a Charter contract that restricts online distribution, arguing that the provision "caused the network to slow its deployment to OTT devices and avoid excessive advertisement of its services on OTT platforms."[749] DISH alleges further that similar provisions impeded its development and launch of its linear online video service, Sling TV.[750]

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[743] Moreover, we note that not all programmers have the same bargaining leverage. Many small, independent, new, and niche networks likely have far less bargaining leverage than established programmers or those owned by a media conglomerate. Nonetheless, the transaction would increase Charter's bargaining leverage relative to all programmers, large and small.

[744] *See* Application at 57-58; Opposition at 65; Katz Reply Decl. at paras. 78-82.

[745] For instance, buyers of linear programming are typically limited to the traditional MVPDs (i.e., cable operators, DBS providers, and overbuilders). Although several online services have begun offering linear programming, as we have noted above, these services are nascent and have negligible market share today. In addition, DBS generally offers less VOD programming than cable operators because it is principally a one-way transmission path from the DBS provider to the viewer rather than a two-way system as VOD requires. *See, e.g.*, *AT&T-DIRECTV Order*, 30 FCC Rcd at 9247, para. 301 (finding that DIRECTV "lack[ed] the infrastructure for broadband delivery of its VOD content and [was] unlikely to have developed broadband on its own without partnering with a broadband provider").

[746] *See* DISH Petition at 64-65, 68; Public Knowledge et al. Petition at 12-14; WGAW Reply at 26; Public Knowledge Reply at 5-9; Public Knowledge Feb. 8, 2016, *Ex Parte* Letter at 1; Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter at 10; WGAW Feb. 10, 2016, *Ex Parte* Letter at 3-5.

[747] *See supra* Section V.A.

[748] Time Warner Inc. Jan. 13, 2016, *Ex Parte* Letter at 1-2; *see also* Tom DiChristopher, *Over-the-Top HBO Will Not Kill the Cable Bundler: Plepler*, CNBC (Nov. 20, 2014), http://www.cnbc.com/2014/11/20/over-the-top-hbo-will-not-kill-the-cable-bundle-plepler.html (quoting Charter President and CEO Tom Rutledge: "[a]nybody who sells their content over the top and also expects to continue to exist inside a bundle of services sold to cable or satellite providers, I think is really deluding themselves"); Charter Communications (CHTR) Thomas M. Rutledge on Q2 2015 Results – Earnings Call Transcript, Seeking Alpha (Aug. 4, 2015), http://seekingalpha.com/article/3396305-charter-communications-chtr-thomas-m-rutledge-on-q2-2015-results-earnings-call-transcript?part=single (quoting Charter President and CEO Tom Rutledge: "to the extent that people go a la carte direct, I think they lower their value to us . . . and they may or may not be carried in the future as a result of that"); CHR2-DOJ-00000139683 at 1, **[BEGIN HIGHLY CONF. INFO.]**

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[749] Herring Networks Nov. 16, 2015, *Ex Parte* Letter at 1-2, 5; Herring Networks Dec. 18, 2015, *Ex Parte* Letter at 2; *see also* Herring Networks Feb. 12, 2016, *Ex Parte* Letter, Attach. at 6-8.

[750] *See* DISH Petition at 64-68.

220. The Applicants argue that contractual provisions such as ADM and MFN provisions have various pro-competitive and pro-consumer justifications.[751] For instance, the Applicants contend that these provisions make for more efficient negotiations, protect their investment in programming, and provide their subscribers with access to more content.[752] We find that these purported justifications are likely less applicable to certain types of ADM and MFN provisions when employed by an incumbent cable operator the size of New Charter. In particular, consistent with concerns previously expressed by the Commission and DOJ, we are concerned that, in this instance, potential harms outweigh any pro-competitive justifications with respect to two specific types of provisions: (i) ADM provisions that restrict a programmer's distribution of content to consumers online for a fee, including on a subscription basis, for an extended period of time and (ii) unconditional MFN provisions that may dissuade programmers from offering content via one or more online distribution platforms.[753] Moreover, the effects of contractual provisions—in particular ADMs—that deny OVDs content are nationwide in scope. Because national programming is licensed to OVDs on a national basis, the affected area is not limited to the footprint of the MVPD that imposed the clause on the programmer.

221. We find that this transaction raises particular concerns with respect to such provisions. With its larger scale, New Charter would see more benefit flow back to it from provisions that go beyond protecting its investment in programming and instead seek to disadvantage its online rivals, making it more likely that New Charter would seek such provisions.[754] In addition, its incremental leverage would make it more likely that New Charter would be able to obtain such provisions, as discussed above. Moreover, as employed by New Charter, such provisions would be more likely to have the effect of impeding competition in the downstream video distribution market and reducing the amount of online programming available to consumers. For instance, unconditional MFN provisions that would entitle New Charter to additional content or packaging rights, if triggered, could effectively reduce a programmer's economic incentives to grant additional rights to an online distributor.[755] This is because, under such a provision, a programmer would be required to offer to New Charter, for no incremental consideration, any more favorable rights that it provides to the online distributor.[756] Given New Charter's

[751] *See* Opposition at 65-68; Katz Reply Decl. at paras. 111-30.

[752] *See* Opposition at 65-68; Katz Reply Decl. at paras. 111-30.

[753] *See* Competitive Impact Statement, *United States et al. v. Comcast Corp., General Electric Co., and NBC Universal, Inc.*, No. 1:11-cv-00106 (D.D.C. filed Jan. 18, 2011) (DOJ Comcast-NBCU Competitive Impact Statement) at 35-36 (finding that windowing provisions can be pro-competitive but that "[a]s a cable company, Comcast has the incentive to seek exclusivity provisions that would prevent content producers from licensing their content to alternative distributors, such as OVDs, for a longer period than the content producer ordinarily would find economically reasonable, in order to hinder OVD development"); *Comcast-NBCU Order*, 26 FCC Rcd at 4361, Appendix A.IV.B (setting out restrictions on Comcast-NBCU's use of certain types of ADM and MFN provisions).

[754] *See, e.g.*, Herring Networks Feb. 12, 2016, *Ex Parte* Letter, Attach. at 6 ("Big MVPDs demand MFN clauses in their affiliation agreements."). Moreover, the ADM provisions of concern here would not simply protect the value of exclusive rights New Charter licenses. ADM provisions that restrict all online transmission (including distribution to paying subscribers), or that require a programmer to meet certain onerous conditions before it can distribute its programming online, permit a programmer to license its content to other incumbent, traditional pay-TV services but not to online subscription services. Accordingly, ADM provisions of this nature target only new entrants that distribute their services to their subscribers over the Internet rather than via a wireline facility or satellite. As noted above, DISH maintains that such provisions delayed the launch of Sling TV. *See* DISH Petition at 64-68.

[755] *See, e.g.*, Herring Networks Feb. 12, 2016, *Ex Parte* Letter, Attach. at 9.

[756] By contrast, conditional MFN provisions are less likely to have such an effect because New Charter would be required to provide the programmer with any incremental consideration the online distributor agreed to in exchange for additional rights. Moreover, we do not find that the potential harms from New Charter's use of unconditional

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size post-transaction, such a disincentive would be particularly strong in this case. To the extent a programmer and an OVD overcome this significant disincentive, New Charter would obtain the same distribution rights as the OVD through its unconditional MFN. This would increase similarity between the content available on New Charter and the OVD, thus lessening product differentiation that would otherwise expand the competitive options for consumers.

222. As discussed above, we find that the transaction would increase the risk that New Charter would use its leverage to negotiate for additional restrictions on online distribution and cause harm in the video distribution market.[757] Specifically, the transaction would result in a larger MVPD, and the record here indicates that New Charter could use its increased bargaining leverage to continue to obtain such terms, or negotiate for more restrictions.[758] For instance, there is evidence that the Applicants currently seek, and in some instances obtain, ADM and MFN provisions in their programming agreements that target new online distribution models, a situation that could be made worse by New Charter's greater scale post-transaction.[759]

223. The DOJ, working in close coordination with Commission staff, negotiated a proposed Consent Decree with the Applicants. The Consent Decree prohibits New Charter from enforcing or entering into agreements with programmers that restrict online distribution rights, except under limited circumstances.[760] Consistent with past Commission and DOJ actions, the Consent Decree seeks to ensure that New Charter cannot use restrictive contract terms to harm the development of OVDs and, at the same time, preserves its incentives to invest in high quality programming.[761] Having worked with the DOJ to

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MFNs would be outweighed by any justifications offered by the Applicants, including that such provisions could provide New Charter's subscribers with access to additional content or services. We find that, even in the absence of unconditional MFN provisions in its contracts with programmers, nothing would preclude New Charter from negotiating for additional content rights or other terms that would enable it to provide more or better services to its subscribers. The existence of an unconditional content MFN in a New Charter contract, however, does make it more difficult for another distributor to obtain rights for content that go beyond what New Charter has received.

[757] *See Comcast-NBCU Order*, 26 FCC Rcd at 4267, para. 73 (concluding that a condition was necessary to address Comcast-NBCU's "increased leverage to negotiate restrictive online rights from third parties," which could result in harms to competition, consumer choice, diversity, and broadband investment).

[758] We note that the Commission examines each transaction based on its own facts, and our findings here are specific to the record in this proceeding. Here, the facts demonstrate New Charter's increased incentive and ability to engage in anticompetitive conduct, but the specific facts in another proceeding may compel a different conclusion. *See, e.g.*, *Adelphia-TWC Order*, 21 FCC Rcd at 8238, para. 72 (analyzing potential harms "based on the facts and evidence presented in the record"); *see also AT&T-DIRECTV Order*, 30 FCC Rcd at 9201-02, para. 187 ("Based on our review of the totality of the record we cannot find that DIRECTV has been able to limit consumers' access to distribution of video programming online or that with an additional approximately 6 million U-verse video subscribers the combined entity would be better positioned to impede the ability of other MVPDs or OVDs to attract and retain subscribers. Nor does the record contain evidence that AT&T has pursued or, post-transaction, intends to pursue such a strategy with respect to programming contracts."), 9222, para. 237 ("we do not have a record that establishes the competitive impact of MFNs sufficient to support a general condition restricting the use of such contractual provisions").

[759] *See* Herring Networks Nov. 16, 2015, *Ex Parte* Letter at 5; Herring Networks Dec. 18, 2015, *Ex Parte* Letter at 2.

[760] *See Comcast-NBCU Order*, 26 FCC Rcd at 4267, para. 73.

[761] *See id.*; DOJ Comcast-NBCU Competitive Impact Statement at 37. We note too that the Commission has issued a Notice of Inquiry seeking comment on the current state of programming diversity and the principal obstacles, including restrictive contractual provisions, which can impede independent programmers from licensing their content to video distributors. *See Promoting the Availability of Diverse and Independent Sources of Video Programming*, MB Docket No. 16-41, Notice of Inquiry, FCC 16-19 (Feb. 18, 2016).

design the prohibitions adopted as part of the DOJ proposed final judgment, we conclude that we do not need to impose further conditions on New Charter's programming agreements at this time.[762]

G. Other Potential Public Interest Harms and Issues Raised in the Record

1. Fewer Regulatory Benchmarks

224. In this section, we analyze the proposed transaction's effect on the ability of competitors and regulators to conduct comparative or "benchmarking" analyses on the practices of similarly situated companies.[763] We conclude that the transaction is not likely to diminish this benchmarking ability.

225. *Positions of the Parties.* The Applicants argue that the transaction would create no meaningful loss of benchmark competition.[764] The Applicants note that their footprints overlap very little and that New Charter would continue to face rigorous competition from legacy telephone companies, DBS companies, wireless companies, and overbuilders after the proposed transaction closes.[765] Furthermore, the Applicants note that the transaction's major effect on the benchmarking front would be New Charter's new ability to serve as "a prominent counterbalance to Comcast on the national stage."[766]

226. DISH's petition, which addresses the issue of benchmarking directly, argues that the proposed transaction would diminish the Commission's ability to accurately assess competitive activity within the industry. DISH states that "taking three innovators out of the market and merging them into one does not necessarily portend well for innovation in the industry as a whole."[767] DISH argues further that while today there are three companies trying three different approaches which are all instructive for

[762] Because the Applicants have agreed to an anti-retaliation provision as part of the consent decree resolving the action filed by the United States, we find it unnecessary to adopt an anti-retaliation remedy as suggested by Herring Networks. *See* Herring Networks Feb. 19, 2016, *Ex Parte* Letter at 1, Attach. 1 at 1-2; *see also* RIDE TV March 14, 2016, *Ex Parte* Letter at 1 (supporting condition proposed by Herring Networks).

[763] As the Commission explained in the *SBC-Ameritech Order*, comparative practices analyses, also referred to as "benchmarking," provide valuable information regarding an entity's networks, operating practices and capabilities to regulators and competitors seeking, in particular, to promote and enforce the market-opening measures required by the Communications Act and the rapid deployment of advanced services. *Applications of Ameritech Corp., Transferor, and SBC Communications Inc., Transferee*, Memorandum Opinion and Order, 14 FCC Rcd 14712, 14760-61, para. 101 (1999) (*SBC-Ameritech Order*). Generally speaking, benchmarking analyses help determine industry averages, industry best practices, and industry worst practices. *See generally SBC-Ameritech* Order, para. 112; *Application of GTE Corp., Transferor, and Bell Atlantic Corp., Transferee, For Consent to Transfer Control of Domestic) and International Sections 214 and 310 Authorizations,* Memorandum Opinion and Order, 15 FCC Rcd 14032, 14102, para. 134, 14103, para. 139 (2000) (*Bell Atlantic-GTE* Order). In previous transaction reviews, the Commission has recognized that a reduction in the number of independently-owned entities can limit the effectiveness of benchmarking. *SBC-Ameritech Order*, 14 FCC Rcd at 14761, para. 102; *Applications of NYNEX, Transferor, and Bell Atlantic Corporation, Transferee*, Memorandum Opinion and Order, 12 FCC Rcd 19985, 19994, para. 16 (1997); *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Southern New England Telecommunications Corporation, Transferor, to SBC Communications, Inc., Transferee*, Memorandum Opinion and Order, 13 FCC Rcd 21292, 21302, para. 21 (1998). In these prior mergers, the Commission also concluded that a reduction in major service providers can increase the risk that the remaining firms will collude, either explicitly or tacitly, to conceal information and hinder the benchmarking efforts of regulators and competitors and that this can pose a "significant harm to the public interest." *SBC-Ameritech Order*, 14 FCC Rcd at 14762, paras. 101, 104.

[764] Opposition at 78.

[765] *Id.*

[766] *Id.* at 79.

[767] DISH Petition at 39.

the larger market, post-transaction "the market loses out on two potential alternatives."[768] DISH also notes the consumer-side value of benchmarking, stating that "Charter, Time Warner Cable, and BHN subscribers would also lose a natural and important opportunity for benchmarking their broadband service" and that benchmarking allows consumers "to assess the legitimacy of their ISP's actions and policies—from the price they pay for service, to policies that interfere with their ability to receive the content of their choosing."[769] Ultimately DISH argues that the proposed transaction would free the Applicants from the necessary "disciplining force" of benchmarking, making any anticompetitive actions by New Charter more difficult to perceive, let alone deter.[770]

227. *Discussion.* We find that the proposed transaction would not likely cause any specific, cognizable harm with respect to benchmarking. In the few areas where the Applicants do have substantive differences—for example, their set-top box policies—this Order sufficiently addresses concerns about the lack of variety in operational methods and the continued ability of industry participants and the Commission to evaluate best practices. Additionally, as discussed in more detail in the following section, we find no evidence that the proposed transaction increases the likelihood of coordination among remaining firms—a key consideration in benchmarking analysis.[771] Overall, the record does not support a finding that the loss of Time Warner Cable and Charter as independent entities, and the creation of a new merged entity, will curtail the benchmarking ability of competitors or regulators.

2. Increased Coordination in the BIAS Market among BIAS Providers

228. This subsection examines the potential for coordinated actions in the BIAS market both at the national level between what would be the largest BIAS providers after the transaction, and in the local markets where New Charter would compete. At the national level, we examine commenters' claims that the transaction may increase the ability of Comcast, New Charter, and other large incumbent BIAS providers to engage in coordinated actions that harm consumers.[772] Based on our review of the record, we find that the transaction is unlikely to induce more coordinated action at the national or local level that would harm consumers and lead to a lessening of competition for BIAS.

229. *Positions of the Parties.* The Commission received several comments expressing concern about possible coordination between New Charter and Comcast at the national level in the provision of BIAS. For example, WGAW states that Comcast and New Charter would "control the overwhelming majority of the national high-speed BIAS market."[773] WGAW predicts that this concentration would increase the ability of Comcast and New Charter to "set the terms of access to both sides of the broadband market in an anticompetitive manner."[774] DISH claims that Comcast and New Charter would control

[768] *Id.*

[769] *Id.* at 63.

[770] *Id.*

[771] *See infra* Section V.G.2; *see also SBC-Ameritech Order*, 14 FCC Rcd at 14761, para. 156.

[772] *See, e.g.*, Free Press Petition at 2, 27 ("Turning the national broadband market into a duopoly will confer additional market power not only on New Charter, but also on Comcast."); AT&T Services Inc. Comments at 1 (AT&T Comments) ("Cable companies have chosen not to compete and instead coordinate to gain shared advantages over rivals, which further industry consolidation will only facilitate.").

[773] WGAW Petition at 4. *See also* Free Press Petition at 3 (stating that the transaction would give New Charter control of over 20 million BIAS customers and more than 25 percent of the national market for high-speed BIAS; together, New Charter and Comcast would control nearly two-thirds of current BIAS customers and the telecommunications wires connected to nearly eight of ten homes); WGAW Reply at 2-3.

[774] WGAW Petition at 4.

[BEGIN HIGHLY CONF. INFO.] **[END HIGHLY CONF. INFO.]** percent of the nation's high-speed BIAS households[775] and would not need to overtly collude to harm OVDs since "[p]arallel foreclosures, with one of the two following the other, would be enough for an OVD to be shut off from most of the high-speed homes in the country."[776] According to DISH, the potential effects of coordination between Comcast and New Charter would be "highly pronounced" given the barriers to entry and the lack of alternatives in the BIAS market.[777] AT&T claims that emerging competition is vulnerable to "coordinated exclusionary actions by cable" providers and that this transaction would "create a second cable giant—alongside Comcast—that together would dictate strategy for the entire cable industry."[778]

230. Charter argues that a "collusive duopoly" between New Charter and Comcast is "wholly implausible."[779] According to the Applicants' economist, Dr. Scott Morton, "because of conflicting technological platforms and business plans, New Charter has little ability to collude with Comcast and even less incentive to do so."[780] Charter points to its differences with Comcast—the disparities in program ownership and the different types of access to content delivery (set-top boxes on Comcast's Xnfinity platform vs. New Charter's cloud-based Spectrum Guide)—to bolster the conclusion that it would be implausible for Comcast and New Charter "to arrive at a collusion strategy that would benefit them both."[781] Finally, Charter claims that it would lack any realistic means of enforcing a collusive agreement with Comcast in the event the providers decided to collude.[782]

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[775] DISH Jan. 20, 2016, *Ex Parte* Letter at 2.

[776] DISH Petition at 3, 27-28.

[777] *Id.* at 31. *See also* Free Press Petition at 28 (stating that the primary coordinated effect resulting from this transaction that should concern the FCC is increased consolidation in the national BIAS market that facilitates the ability of the largest cable companies to harm OVD competition and to ensure that OVD services remain merely a complementary product instead of a substitute for MVPD services); Public Knowledge et al. Petition at 2 ("From the perspective of programmers and Internet content companies, and ultimately consumers, two large national cable companies that behave in parallel ways may be little better than one large cable company."); US Telecom Nov. 12, 2015, *Ex Parte* Letter at 2.

[778] AT&T Comments at 2; *see also* Granite Telecommunications Inc. Reply at 6 (Granite Reply) ("The proposed combination between Charter, TWC and BrightHouse, coupled with the announced wholesale arrangement with Comcast and other cable companies, raises questions regarding competition between and among these companies in all markets. Under traditional competitive analysis, when two or more companies that compete or could compete in multiple markets, where each company possess a significant cost advantage over the other, each firm has an incentive to collude with the other(s) in order to avoid competing in the market where the other company(ies) possess a cost advantage." (citing *Brooke Group Ltd.* v. *Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 227 (1993)).

[779] Opposition at 4, 69 (stating that opponents provide no explanation why New Charter would collude with Comcast to harm OVDs).

[780] *Id.* at 70. According to Dr. Scott Morton, the most important factor differentiating the two companies is their ownership of national programming—Comcast is vertically integrated with the programming of NBC Universal, while New Charter "lacks significant programming." Scott Morton Reply Decl. at para. 192. Moreover, the incentives of Comcast "with such significant video programming interests are dramatically different than a company, like New Charter, which would have no significant national programming. New Charter will provide consumers with access to the online and cable programming they want without regard to whether it harms a particular producer of programming." Opposition at 70.

[781] Opposition at 71.

[782] *Id.*; *see also* Scott Morton Reply Decl. at para. 144 ("[W]ithout evidence of a specific mechanism that would allow the two firms to reach a collusive agreement, monitor that agreement, and punish any deviations from that

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231. In response, AT&T submits an analysis from economist Dr. Marius Schwartz, who states that Dr. Scott Morton overstates the difficulty of proving harmful coordination between Comcast and New Charter.[783] Dr. Schwartz asserts that the proposed transaction relaxes obstacles to coordinated exclusionary action targeted against independent OVD networks, the scope of which could be significant in the cable industry.[784] According to Dr. Schwartz, the analysis performed by Dr. Scott Morton "did not purport to address exclusionary conduct against non-cable MVPD and broadband competitors, a goal that cable companies would naturally share."[785]

232. *Discussion of Coordination at the National Level.* While several commenters allege New Charter would be well positioned to coordinate with Comcast after the transaction,[786] we note that they do not support their claims with evidence of prior tacit or overt coordination in the current marketplace.[787] This is instructive because Time Warner Cable and Comcast have been providing BIAS for years as the two largest cable BIAS providers, and commenters identify no specific instances of parallel or coordinated behavior between those two companies with respect to retail residential BIAS practices.[788] Although New Charter represents an increase over Time Warner Cable's current subscribership,[789] that increase in size does not, in and of itself, constitute sufficient evidence that New Charter would materially change Time Warner Cable's former behavior vis-a-vis Comcast. Nor is there evidence in the record that either Charter or Bright House impeded industry coordination such that their removal from the market as

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agreement, any conclusion that collusion is likely is mere speculation. I have seen no evidence of such a mechanism, and no commenter has identified a plausible collusive mechanism.").

[783] *See* Schwartz Analysis at 2.

[784] *See id.*

[785] *Id.* at 9.

[786] *See* DISH Reply at 21-22 (stating that the transaction would create a duopoly with Comcast; giving New Charter the incentive and ability to harm OVDs and that the "foreclosure of rival OVDs would be mutually beneficial as long as rival OVD content continues to compete with the duopolists' linear video or affiliated OVD services."); WGAW Reply at 16 (claiming that Comcast and New Charter "would be able to coordinate actions . . . simply by observing each other, for instance through press reporting. Any action to complicate OVD access to one company's subscriber base, such as anticompetitive pricing (e.g., bundling, usage-based billing) or restricting OVD access to the video interface or set-top box could be echoed by the other.").

[787] *See, e.g.*, Letter from Rick Chessen, Senior Vice President Law and Regulatory Policy, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Nov. 6, 2015) (arguing that the courts have made clear that a charge of "coordinated exclusionary actions" requires evidence, not just speculation, and there is no such evidence in this case).

[788] *But see* DISH Jan. 20, 2016, *Ex Parte* Letter at 10 **[BEGIN HIGHLY CONF. INFO.]**

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[789] According to FCC Form 477 BIAS subscriber data from December 2014, **[BEGIN HIGHLY CONF. INFO.]**

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independent firms makes coordination between Comcast and New Charter, or more generally among incumbent cable companies, more likely post-transaction.[790] The proposed transaction does not appear to materially alter the competitive landscape in a way that makes these two large incumbents more likely to coordinate than they did before.[791]

233. While Dr. Schwartz sets forth certain scenarios in which, post-transaction, the high-speed BIAS marketplace possibly becomes ripe for cable company collusion,[792] he provides no examples or verifiable predictions of actual cable company collusion. Though Dr. Schwartz concludes that "the absence of past coordinated exclusionary behavior when the industry was more fragmented does not eliminate concerns in a post-merger environment,"[793] we find that his predictions of coordinated future exclusionary behavior are speculative.

234. In addition, some commenters argue that coordination is generally easier when there are fewer and more similar players with which to coordinate.[794] However, collusion between a pair of BIAS providers in an environment with differentiated competitors[795] may be harder to sustain. The large BIAS competitors to Comcast and New Charter differ from both of these cable companies, and in important respects are quite different from each other,[796] thus reducing the likelihood of collusion against all the varying rivals to cable providers. For example, Table 1 in the reply declaration of Dr. Scott Morton shows the relative sizes of Comcast and New Charter as BIAS providers and MVPDs, and compares them to AT&T, DISH, and Verizon.[797] Similarly, the businesses of AT&T, DISH, and Verizon are very distinct

[790] Even though DISH claims that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* DISH Jan. 20, 2016, *Ex Parte* Letter at 10-11. We find that such internal discussions do not rise to the level of improper overt or tacit coordination with Comcast.

[791] *See* American Commitment Comments at 1-2 ("There is no legitimate anticompetitive concern . . . New Charter will have fewer total broadband customers than Comcast and will trail both AT&T and Comcast in video market share."). As the Applicants state, the transaction does not alter New Charter's lack of significant national programming interests or its unique cloud-based Spectrum Guide, two differentiators from Comcast that make it "implausible" for the two companies to collude post-transaction. Opposition at 70-71; *see also* Scott Morton Reply Decl. at paras. 171-72 (noting that "neither Charter, nor TWC, nor BHN have any history of collusion against OVDs" and that the "lack of any history of collusion is consistent with collusion being an undesirable strategy, very difficult for these firms to achieve, or both.").

[792] For example, in response to Dr. Scott Morton's claim that no collusive understanding could be reached between New Charter and Comcast without explicit communications between the parties, Dr. Schwartz states "[w]hile it is true that this particular form of coordination would require some degree of communication, plausible mechanisms can be envisioned." Schwartz Analysis at 5. Dr. Schwartz, however, does not present examples of signaling, notwithstanding the potential opportunities presented by Comcast's and Time Warner Cable's long-standing positions as the largest players in the cable industry.

[793] Schwartz Analysis at 8.

[794] *Id.* at 7-8; DISH Jan. 20, 2016, *Ex Parte* Letter at 8; *see also* Scott Morton Reply Decl. at para. 187 ("It is commonly thought that it is easier for symmetric firms to reach a collusive agreement.").

[795] *See* Application at 5 ("New Charter will continue to face significant competition from wireline competitors (e.g., AT&T, Verizon, Frontier, and CenturyLink) across the merged footprint, even apart from other forms of competition (e.g., wireless and satellite providers)); Scott Morton Reply Decl. at 12, Table 1 (citing SNL Kagan subscriber numbers from the second quarter of 2015 for BIAS providers).

[796] *See* Scott Morton Reply Decl. at paras. 138-42.

[797] *See id.* at 12, Table 1; Application at 45, 55 (the largest BIAS providers would be Comcast (22 million subscribers), New Charter (19.4 million), AT&T (16 million), and Verizon (9.2 million), while the largest MVPDs (continued….)

from each other, and from those of Comcast and New Charter. For example, among these companies: only AT&T and Verizon provide mobile phone service;[798] AT&T has a significantly larger MVPD subscriber base (due in large part to its acquisition of DirecTV) compared to Verizon;[799] Verizon has a higher proportion of FTTH—and with it larger capacity on its network—than does AT&T, Comcast, or New Charter;[800] and DISH is a pure satellite operator with almost no wireline operations. While each of these three quite different non-cable companies competes head-to-head with Comcast and New Charter, they do so in different locations and using different strategies,[801] thus making coordinated action between Comcast and New Charter more difficult against each of these different rival providers.

235. Because of these significant differences between New Charter and its local BIAS competitors, we agree with the Applicants that the record does not support a finding that the transaction will make it materially more likely that New Charter and Comcast will collude on BIAS practices to the detriment of OVD and MVPD competitors. However, we note that if the cable industry continues to consolidate, a transaction may arise where the public would face an increased risk of anticompetitive harm stemming from the transaction, thus causing an increased likelihood of such collusion.

236. *Discussion of Coordination at the Local Level.* As an initial matter, because the Applicants do not—except in a few *de minimis* circumstances—compete with each other to offer residential BIAS,[802] the proposed transaction would not change the number of BIAS providers available to consumers at their residences. Without a change in concentration in local markets, the transaction is unlikely to increase the likelihood of coordinated action among BIAS providers at the local level.[803] Charter's internal documents tend to show **[BEGIN HIGHLY CONF. INFO.]**

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would be AT&T/DirecTV (26.3 million subscribers), Comcast (22.4 million), New Charter (17.3 million), and DISH (12 million).

[798] *See* Scott Morton Reply Decl. at paras. 138-39.

[799] *See id.* at 12, Table 1.

[800] *See* FiberforAll, *Finally a Verizon Fios Availability Map*, http://fiberforall.org/fios-map/ (last visited Feb. 18, 2016).

[801] In fact, these three non-cable rivals have taken market share from the cable companies in the area of MVPD services, while they are losing share to the cable companies in BIAS, telephone, and high margin business services. *See, e.g.*, Opposition at 43 ("Telco MVPD subscriber bases have more than doubled since 2010, and SNL Kagan predicts them to grow from 13.7 million as of 2014 to 20.7 million by 2022."); CHR2-DOJ-00000022862 at 2, 9, **[BEGIN HIGHLY CONF. INFO.]**

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[802] Charter July 2, 2015, *Ex Parte* Letter at 1-2 (stating that the potential overlap between Charter and Time Warner Cable service areas covers approximately 0.1% of residential BIAS customers).

[803] As discussed below, we require New Charter to build out to one million new customer locations outside the Applicants' current footprints already served by high-speed BIAS providers offering speeds of at least 25 Mbps down as a condition to approval of the Application. *See infra* Section VI.F. As conditioned, we find that the transaction will increase competition in the local BIAS market over the duration of New Charter's buildout, thereby lessening the likelihood of coordination among BIAS providers.

[804] *See, e.g., supra* para. 80 **[BEGIN HIGHLY CONF. INFO.]**

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See TWC-FCC-00241137 at 29, **[BEGIN HIGHLY CONF. INFO]**

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[END HIGHLY CONF. INFO.].[805] Further, as Charter notes, its commitment to refrain from data caps and UBP would make it less likely that New Charter could coordinate with its rivals on BIAS pricing.[806] As a result, we find that the proposed transaction as conditioned is unlikely to increase the likelihood of coordination among rivals on retail residential BIAS practices in the local market.[807]

3. Cable Modems

237. Cable modems serve to connect consumer equipment, such as computers, tablets, smartphones, and other Internet-connected devices, to the broadband service offered by cable operators. Cable modems are available to consumers both to lease from operators and to purchase from operators or retailers. Cable operators generally charge a monthly fee to lease a cable modem: Time Warner Cable currently charges ten dollars per month,[808] and Bright House charges four dollars per month.[809] By comparison, cable modems without wireless routing capabilities generally retail for less than 100 dollars.[810] Therefore, for many customers, it is financially advantageous, in the long run, to purchase a cable modem, rather than to lease one from a cable operator. In contrast with Time Warner Cable and Bright House, Charter, under its New Price Packaging (NPP), does not include a line-item charge on customer invoices for cable modems, nor does it offer a rebate or credit when customers use their own modem.[811] Charter does, however, charge customers five dollars per month for its home WiFi service,

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[805] CHR2-DOJ-00000022862 at 5, 7, 10, 13, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[806] *See* Opposition at 18; Scott Morton Reply Decl. at 65, para. 190 (stating that asymmetries existing with Charter's rivals include the use of network interconnection fees and data caps; rivals like Comcast have these, while "New Charter will not." The commitment to refrain from data caps and UBP is "evidence that New Charter will not be able to cooperate" with its rivals' strategies.).

[807] For similar reasons, we are unable to credit claims that cable companies such as New Charter, by facing its telco rivals in more geographic markets, would be more able to coordinate with them. *See, e.g.*, AT&T Comments at 2 (noting that cable companies share common rivals in BIAS, video, and telecommunications services and that these "geographically segregated cable companies therefore have incentives to coordinate their activities to fend off these common rivals and have demonstrated the ability to do so.").

[808] Time Warner Cable, *What Price will I be Charged to Lease a Modem from TWC/EarthLink?*, http://www.timewarnercable.com/en/support/faqs/faqs-internet/internetmodemlease/what-price-will-i-be-charged html (last visited Feb. 24, 2016). Time Warner Cable's modem rate increased from eight dollars to ten dollars. *See, e.g.*, Don Reisinger, *Your Time Warner Cable Bill is Going Up*, Fortune (Dec. 22, 2015), http://for.tn/1YyTOum.

[809] Advance/Newhouse Response to Information Request at 35.

[810] *See, e.g.*, Bestbuy, *Wireless & Cable Modems: VOIP Routers and Adapters*, http://www.bestbuy.com/site/networking/cable-dsl-modem-voip/abcat0503013.c?id=abcat0503013 (last visited Mar. 10, 2016); B&H.com, http://www.bhphotovideo.com/c/buy/Modems/ci/13107/N/4294542234 (showing numerous high-performance cable modems for less than $100) (last visited Feb. 24, 2016).

[811] Charter Response to Information Request at 146, 150. Customers on the legacy plans receive bills with a line-item fee for cable modems if they use a Charter modem. Those customers that use their own modem are not

(continued….)

which includes a WiFi router in addition to the modem.[812] Time Warner Cable and Bright House also offer similar home WiFi services.[813] Charter proposes to extend its pricing plan, and with it, its cable modem policies, to Time Warner Cable and Bright House customers while also permitting those customers to retain their legacy plans, including any modem rental fees.[814]

238. *Positions of the Parties.* Zoom Telephonics, Inc. (Zoom), a company that produces, sells, and services cable modems and other communications devices, argues that Charter's cable modem policies with respect to pricing violate the Act and Commission regulations, as described below,[815] and that extension of the practice to Time Warner Cable and Bright House territories would create a transaction-specific public interest harm.[816] Specifically, Zoom compares Time Warner Cable's and Bright House's practice of identifying modem rental fees separately on their subscriber invoices and waiving those monthly fees when a consumer uses consumer-owned equipment with Charter's practice that identifies no separate rental fee and no rebate or credit for use of consumer-owned equipment. Zoom concludes that expansion of the Charter practice would discourage subscribers that currently have incentive to use retail equipment from attaching their own modem. Zoom asks the Commission to designate the Application for hearing or impose a condition that would require Charter to separately state its modem fees and to offer modems at an unsubsidized price.[817]

239. Zoom argues that Section 629 of the Communications Act requires a cable operator to separately itemize and not subsidize the charges for cable modems provided by the cable operator to customers.[818] Zoom contends further that Charter's cable modem billing policies violate Section 76.1206

(Continued from previous page)
charged the nine dollars a month cable modem rental fee. Charter Response to Information Request at 147, 149. Under Charter's NPP model, adopted in June 2012, Charter offers uniform pricing across its footprint for its services and touts that there are no early termination, E911, and modem rental fees. *See* Charter Response to Information Request at 234-35; Residential Pricing and Packaging White Paper at 2.

[812] Charter, *Spectrum In-home WiFi Routers: General Information*, http://www.charter net/support/internet/spectrum-home-wifi-routers-general-information (last visited Feb. 24, 2016).

[813] Time Warner Cable leases to customers a wireless gateway modem for ten dollars a month and enables WiFi networking capabilities for an additional charge. *See* TWCable-DOJ-001238331 **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; Zoom Petition at 14, Exhibit I. Bright House also offers a wireless home networking service called Echo Home Networking. Bright House, *What is Echo Home Networking?*, http://support.brighthouse.com/Article/What-Is-Echo-Home-Networking-3668/ (last visited Feb. 1, 2016).

[814] Charter Response to Information Request at 148; Residential Pricing and Packaging White Paper at 3-4.

[815] Zoom Petition at 1, 13-28; Zoom Telephonics Inc. Reply at 8-17 (Zoom Reply); *see also* Letter from Andrew Schwartzman, Counsel for Zoom Telephonics Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 23, 2015) (Zoom Nov. 23, 2015, *Ex Parte* Letter).

[816] Zoom Petition at 2, 27; Zoom Reply at 2.

[817] Zoom Petition at 27-28; Zoom Nov. 23, 2015, *Ex Parte* Letter at 2; Letter from Andrew Schwartzman, Counsel for Zoom, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2, Attachment A (filed Mar. 28, 2016) (providing draft language for a proposed condition with respect to cable modem pricing and certification).

[818] Zoom Petition at 15-16, 17 (citing 47 U.S.C. § 549); Zoom Reply at 10-14; Zoom Nov. 23, 2015, *Ex Parte* Letter at 1-2; Letter from Andrew Schwartzman, Counsel for Zoom Telephonics Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed March. 23, 2016) (Zoom Mar. 23, 2016, *Ex Parte* Letter). Zoom adds that Section 629 covers cable modems and relies on the provision's legislative history and Commission precedent. Zoom Petition at 16 (citing H.R. Rept. No. 104-204, pt. 1, at 112 (1995) and *Implementation of Section 304 of the Telecommunications Act of 1996*, Report and Order, 13 FCC Rcd 14775, 14776, 14784 (1998)).

of the Commission's rules,[819] which requires MVPDs offering navigation devices subject to the provisions of Section 76.923[820] to separately state the charges for these devices.[821] Section 76.923 refers to equipment necessary to receive the basic cable television service tier. Zoom contends that Section 76.1206 should be read to apply to all rate-regulated MVPDs that offer any equipment for lease, regardless of whether or not the equipment is used to receive the cable television basic tier service. As such, Zoom argues that Section 76.1206 applies to cable modems Charter provides and prohibits the bundling and subsidizing of cable modem charges.[822] Zoom maintains that had cable modems been available commercially when Section 76.923 was adopted in 1993, that rule would have explicitly covered the rate regulation of cable modems.[823]

240. Zoom also argues that Section 706 of the Act grants the Commission authority over pricing issues.[824] Section 706 directs the Commission to "take immediate action to accelerate deployment of [advanced telecommunications capabilities] by removing barriers to infrastructure investment and by promoting competition in the telecommunications market" in the event that the Commission determines that advanced telecommunications capabilities are not being deployed in a "reasonable and timely fashion."[825] Zoom contends that this provision mandates that the Commission create a competitive retail market for equipment, which it argues the Commission recognized in its *2005 Internet Policy Statement*.[826] Zoom contends further that Charter's cable modem pricing policy violates the antidiscrimination provisions of Sections 201 and 202 of the Communications Act.[827] Finally, Zoom asserts that Charter's bundling of cable modem fees is contrary to the public interest.[828]

241. In contrast, other commenters cite the extension of Charter's no modem rental fee policy to Time Warner Cable and Bright House subscribers as a benefit of the proposed transaction.[829] For example, One World Sports describes Charter's policy of not charging modem lease fees as "pro-consumer" and expects it to continue post-transaction.[830] Stop the Cap expresses concern that subscribers may pay higher prices for broadband unless the Commission imposes a condition on New Charter to extend its policy not to charge modem fees beyond three years.[831] Free Press, in attacking the Applicants' arguments regarding the purported benefits from its increased scale post-transaction, notes that Time

[819] 47 CFR § 76.1206.

[820] 47 CFR § 76.923.

[821] Zoom Petition at 18-21.

[822] *Id.* at 19-20.

[823] *Id.* at 20; Zoom Reply at 9.

[824] Zoom Petition at 21-22; Zoom Mar. 23, 2016, *Ex Parte* Letter at 2.

[825] Zoom Petition at 21 (citing 47 U.S.C. § 706).

[826] *Id.* at 22 (citing *Internet Policy Statement Appropriate Framework for Broadband Access to Internet over Wireline Facilities*, Policy Statement, 20 FCC Rcd 14986 (2005)).

[827] *Id.* at 23.

[828] Zoom Petition at 23-26; Zoom Mar. 23, 2016, *Ex Parte* Letter at 2.

[829] *See, e.g.*, City of DeSoto, Texas, Comments at 1; San Gabriel Valley Regional Chamber of Commerce Comments at 1; Americans for Tax Reform Comments at 2; Older Adults Technology Services Comments at 2.

[830] Letter from Alexander P. Brown, President and CEO, One World Sports, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 2 (filed Oct. 29, 2015) (One World Sports Oct. 29, 2015, *Ex Parte* Letter).

[831] Stop the Cap Comments at 11.

Warner Cable charged eight dollars (now ten dollars) a month for modem rentals while Charter, a smaller company, charges nothing.[832]

242. The Applicants assert that Zoom's complaints target current Charter practices and are not related to the transaction.[833] The Applicants add that that the Commission rejected a similar argument in *AT&T-DIRECTV*, finding that a harm arising out of alleged violations of Section 629 and the navigation device rules, the same rules and statute Zoom invokes, was not transaction-specific.[834] The Applicants also contend that Charter cannot be in violation of Section 629 because the statute does not impose substantive requirements; it merely directs the Commission to enact regulations.[835]

243. The Applicants contend further that the rules Zoom cites do not apply to cable modems.[836] Moreover, according to the Applicants, neither Sections 201, 202, and 706 of the Communications Act, nor the *Open Internet Order* grant the Commission the authority to regulate cable modems.[837] The Applicants add that it would be reasonable for the Commission to permit a cable modem billing policy that provides a modem to subscribers for no charge, while also giving those subscribers "greater transparency about the services they are paying for, while simultaneously enabling third parties to compete at retail by offering equipment with different features."[838] Furthermore, the Applicants state, cable operators are analogously permitted to provide subscribers with universal remotes for free with service, while third parties have the option of selling, and subscribers of purchasing, other remotes at retail.[839] Charter touts its modem fees policy as customer-friendly, and maintains that Time Warner Cable and Bright House customers would benefit from the extension of this policy as a result of the transaction.[840] Charter notes that it adopted this pricing model as a way to "reduce [its] operational costs and provide greater transparency to consumers."[841]

244. Zoom responds that its allegations are indeed specific to this transaction because Charter, unlike other cable operators such as Comcast, Cox, Time Warner Cable, and Bright House bundles the price of cable modem rental with the fees for its broadband service.[842] Moreover, Zoom argues that the cable modem issues raised herein are distinguished from the general policy arguments raised by TiVo in the *AT&T- DIRECTV* proceeding as TiVo was seeking an industry-wide remedy whereas Zoom's

[832] Free Press Petition at 25 (citing Scott Morton Decl. at para. 21). Free Press does not address Zoom's proposed condition in its reply.

[833] Opposition at 73.

[834] Opposition at 73 (citing *AT&T-DIRECTV Order*, 30 FCC Rcd at 9228, para. 250). The Applicants contend that in that proceeding, the Commission rejected TiVo's request that the Commission require AT&T and DIRECTV to comply with Section 629 and Sections 76.1201, 76.1203 and 76.1205 of the Commission's rules, finding that the transaction did not create a public harm and that the issues raised by TiVo contain "broader regulatory policy questions that are more appropriately addressed in the rulemaking context." *Id.* at 73-74 n.288 (citing *AT&T-DIRECTV Order*, 30 FCC Rcd at 9229, para. 253).

[835] Opposition at n.290.

[836] *Id.* at 74-75.

[837] *Id.* at 76.

[838] *Id.*

[839] *Id.*

[840] Winfrey Decl. at para. 9.

[841] Charter Nov. 3, 2015, Updated Response to Information Request at 4-5. Charter notes that the streamlined and standardized bill created cost savings by reducing the time a customer service representative needed to look up rates, explain charges and other pricing options to customers.

[842] Zoom Reply at 3.

requested relief would affect only New Charter's customers.[843] Zoom also argues that Charter's policies are contrary to the public interest standard[844] and that Charter's reliance on case law supporting its argument that it cannot be found in violation of Section 629 is misplaced.[845]

245. Zoom's Petition included assertions that Charter's cable modem attachment practices violated Commission rules and asked the Commission to designate the transaction for hearing or impose a condition requiring the company to adopt reasonable modem certification and attachment policies. Zoom's allegations asserted that the practices violate Sections 629 and 706 of the Act and Sections 76.1201 and 76.1203 of the Commission's rules.[846] Zoom argues that there was no assurance that Charter would allow existing Time Warner Cable and Bright House customers to attach Zoom modems to the New Charter network post-transaction, creating a transaction-specific harm.[847] On April 22, 2016, Charter entered into a Consent Decree with the Media Bureau in which Charter agreed to change its modem certification process by significantly reducing the number of tests necessary for a modem to be certified compliant, as well as the time taken to perform such tests. Charter also agreed to make a settlement payment of $640,000. Charter will submit biannual reports on the status of all modems submitted for testing, and any changes to its testing regime will have to be approved by the Media Bureau. The simplified testing process will make it easier for modems sold by third parties to qualify as compliant with Charter systems.

246. *Discussion.* While Zoom has presented the Commission with arguments concerning Charter's modem billing policies and the impact they may have on the competitive retail market, we need not resolve such contentions here because we find that they are more appropriately addressed in the pending industry-wide rulemaking proceeding on navigation devices. The cable modem pricing policies that Zoom raises in this proceeding are indeed the same types of practices that the rulemaking proceeding seeks to address.[848] Moreover, Charter documents evidence that its introductory and regular rates for BIAS, which includes a Charter provided modem, are less expensive than the corresponding Time Warner Cable BIAS rates even before adding Time Warner Cable's monthly modem rental fees.[849] Charter claims that expanding its lower prices, including its cable modem policy, across the Time Warner Cable and Bright House footprints would benefit the public.[850] Charter also states that, in any event, it would allow current Time Warner Cable and Bright House subscribers to keep their current billing plans, including the

[843] *Id.* at 4.

[844] *Id.* at 15-16. Zoom also discusses its concerns regarding Charter's modem certification policy, and reiterates its arguments with respect to the application of Sections 201, 202 of the Communications Act, Section 706 of the Telecommunications Act of 1996, and the *Open Internet Order* to cable modems. *Id.* at 5-8, 14.

[845] *Id.* at 11-12.

[846] Zoom Petition at 17-18. For a discussion of Zoom's arguments regarding the applicability of Section 706, *see supra* para. 240.

[847] Zoom Petition at 5-13; Zoom Reply at 5-8. Time Warner Cable and Bright House currently permit customers to attach Zoom modems to their networks. *See* Zoom Petition at 5, 7-8, Bright House, *Use Own Modem with HIS Service*, http://support.brighthouse.com/Article/Use-Own-Modem-With-Hsi-Service-9109/ (last visited Feb. 3, 2016); Time Warner Cable, *TWC Compatible Modems*, http://www.timewarnercable.com/content/dam/residential/pdfs/support/internet/twc-compatible-modems.pdf (last visited Feb. 3, 2016).

[848] *Expanding Consumers' Video Navigation Choices; Commercial Availability of Navigation Devices*, MB Docket No. 16-42, Notice of Proposed Rulemaking and Memorandum Opinion and Order, FCC 16-18, at 40-43, paras. 82-86 (2016) (*Navigation Devices NPRM and MO&O*).

[849] *See infra* Section VI.D.

[850] Application at 21.

separate charge for modems.[851] Finally, we note that the transaction will have no effect on customers within Charter's current territory.

247. The recently adopted *Navigation Devices NPRM and MO&O* seeks comment on various proposals designed to increase consumers' ability to choose how they access the multichannel video programming to which they subscribe, and to promote innovation in the display, selection, and use of this programing.[852] Relevant to Zoom's complaints regarding Charter's cable modem billing practices, the *Navigation Devices NPRM and MO&O* seeks comment on a proposal to revise the Commission's rules to require all MVPDs to state separately the charge for a leased navigation device, including a cable modem, on a subscriber's bill and to reduce the charges by that same amount for subscribers that provide their own devices.[853] In the event this rule change is adopted, the Commission further asks if it should "impose a prohibition on cross-subsidization of device charges with service fees."[854] We find that the ongoing navigation devices rulemaking proceeding is sufficient to protect the public interest with respect to New Charter's cable modem billing and marketing practices, and accordingly we decline to adopt the conditions that Zoom requests related to modem billing practices.[855]

4. Set-Top Boxes and Other Video Navigation Devices

248. In this section, we address concerns about potential harms resulting from the proposed transaction that relate to a loss of options for subscribers to access cable programming using retail set-top boxes and other video navigation devices[856] purchased from unaffiliated third-party vendors. As discussed further below, several participants in this proceeding argue that the transaction could reduce the number of such options available to New Charter subscribers absent conditions ensuring that the company continues to enable its subscribers' use of CableCARD-compatible navigation devices purchased from third-party manufacturers, retailers, and other vendors that are not affiliated with New Charter. We determine that the transaction is unlikely to result in fewer choices for subscribers if Charter fulfills its commitment to continue to purchase, distribute, and service CableCARDs, and we adopt this commitment as an enforceable condition, with certain modifications described below.

249. Fostering competition in the market for devices consumers use to access multichannel video programming is an important goal of the Commission. As discussed above, Section 629 of the Communications Act directs the Commission to adopt rules that will "assure the commercial availability" of devices that can access MVPD services, from manufacturers, retailers, and other vendors that are not affiliated with an MVPD.[857] The Commission first adopted rules to implement Section 629 in 1998 and

[851] *See* Charter Response to Information Request at 148; Residential Pricing and Packaging White Paper at 3-4.

[852] *Navigation Devices NPRM and MO&O* at 2, para. 1

[853] *Id.* at 42, para. 84. The NPRM proposes to revise 47 CFR § 76.1206. The rule as currently written applies the separate billing and anti-subsidization requirements to navigation devices subject to the provisions of 47 CFR § 76.923. Section 76.923, in turn, refers to the rate regulation of equipment and installation that is used to receive the basic service tier. The NPRM seeks comment on whether to expand the separate billing and anti-subsidization requirements to all MVPDs and to all navigation devices, including modems. *Id.* at 42-43, para. 84, 85.

[854] *Id.* at 42, para. 85.

[855] *Cf. Applications filed by Qwest Communications International, Inc. and CenturyTel, Inc.*, Memorandum Opinion and Order, 26 FCC Rcd 4194, 4203-04, para. 18 (2011) (declining to impose conditions related to special access as they were better addressed in current rulemaking).

[856] We use the term "navigation device" to refer to hardware, software (including applications), and combinations of the two that consumers could use to access multichannel video programming and other services offered over multichannel video programming systems. *See Navigation Devices NPRM and MO&O* at 12-14, paras. 21-22.

[857] 47 U.S.C. § 549.

those rules require MVPDs to make available a conditional access element[858] separate from the basic navigation or "host" device, to enable unaffiliated entities to manufacture and market host devices while allowing MVPDs to protect their networks from harm or theft of service.[859] The Commission also adopted a rule commonly referred to as the "integration ban," which prohibited MVPDs from deploying navigation devices that perform both conditional access and other functions in a single integrated device to assure reliance by both cable operators and consumer electronics manufacturers on a common, separated security solution.[860] The Commission later adopted standards that largely reflected the terms of a Memorandum of Understanding between cable operators and the consumer electronics industry to establish the technical details of the conditional access element, resulting in the creation of the CableCARD standard.[861] A CableCARD is a security device that cable operators supply for insertion into a device. The consumer may purchase the device in the retail market or use a set-top box leased from the cable operator. A CableCARD identifies and authorizes the subscriber and subsequently decodes encrypted digital cable networks. In 2013, the D.C. Circuit in *EchoStar* vacated the two 2003 Commission Orders adopting the CableCARD standard as the method that all digital cable operators must use to implement the separation of security requirement for navigation devices.[862] The *EchoStar* decision did not, however, vacate or even address the CableCARD customer support rules that the Commission adopted in 2010.[863] In 2014, Congress passed a law that eliminated the integration ban effective December 4, 2015.[864] On February 18, 2016, the Commission adopted an order eliminating the reference to the integration ban from our rules, as Congress directed.[865]

250. *Positions of the Parties.* Some commenters argue that as a result of this transaction New Charter's increased scale would give it greater control over consumers' video equipment and also the ability to raise costs for consumers while restricting competition, including competition from online video.[866] Public Knowledge et al. argue that greater consumer harm would result if New Charter does not

[858] A conditional access element is a piece of equipment that handles the security functions that allow a set-top box or television set to access subscription video services (e.g., decryption of scrambled content). *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Fourth Further Notice of Proposed Rulemaking, 25 FCC Rcd 4303, 4303, para. 2 & n.3 (2010).

[859] *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, Report and Order, 13 FCC Rcd 14775 (1998).

[860] *Id*. at 14803, para. 69.

[861] *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Second Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd 20885 (2003) (*Second Plug and Play Order*), *vacated by EchoStar Satellite L.L.C. v. FCC*, 704 F.3d 992 (D.C. Cir. 2013).

[862] *EchoStar*, 704 F.3d at 1000.

[863] *See* 47 CFR § 76.1205(b). *See also Navigation Devices NPRM and MO&O* at 43-45, paras. 87-91 (seeking comment on the continued relevance of that rule in light of *EchoStar*).

[864] STELA Reauthorization Act of 2014, Pub. L. No. 113-200, § 106, 128 Stat. 2059, 2063-4 (STELAR).

[865] *Navigation Devices NPRM and MO&O* at 45, para. 92.

[866] Public Knowledge et al. Petition at 17; *see also* Public Knowledge Reply at 2 (arguing that New Charter's increased scale would give it an increased ability to influence the consumer equipment and set-top box market); Letter from Gene Kimmelman, President and CEO, Public Knowledge, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Mar. 14, 2016) (Public Knowledge Mar. 14, 2016, *Ex Parte* Letter) (arguing that New Charter's control over its subscribers' set-top boxes would allow it to restrict subscribers' access to online video); Letter from Daniel O'Connor, Vice President, Public Policy, Computer & Communications Industry Association (CCIA), and John A. Howes, Jr., Legal Fellow, CCIA, to Marlene H. Dortch, Secretary, FCC, MB Docket Nos. 15-149 and 15-64, at 1 (filed Feb. 11, 2016) (CCIA *Ex Parte* Letter) (arguing that New Charter's increased market

(continued….)

adequately support the existing CableCARD system.[867] According to Public Knowledge et al., although the CableCARD regime has not fully achieved the Commission's statutory goal of fostering a competitive retail market for set-top boxes and similar video equipment, the regime has had some success and has been a valuable technology for some consumers.[868] Public Knowledge et al. state that the Commission should not approve the transaction unless New Charter (i) agrees to work cooperatively with the Commission to help implement a new, nationwide standard that would help achieve a competitive market for navigation devices, and (ii) "agrees to follow industry best practices with respect to CableCARD customer and technical support."[869]

251. TiVo Inc. (TiVo) and Hauppauge Computer Works, Inc., (Hauppauge) agree that New Charter must adequately support CableCARD devices. In particular, TiVo and Hauppauge each raise as a concern whether New Charter may be relieved of the obligation to provision new CableCARDs to subscribers, citing to a 2013 Media Bureau Order (*2013 Waiver Order*) granting Charter a temporary waiver of the integration ban.[870] Although the waiver has since expired,[871] it was subject to conditions that, among other things, required Charter to "continue, indefinitely, to support CableCARD devices and comply with the Commission's CableCARD technical rules in 47 CFR §§ 76.640, 76.1205 and 76.1602."[872] However, the *2013 Waiver Order* stated that Charter would no longer be required to provision new CableCARDs to subscribers once a third-party device compatible with Charter's

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power would increase its incentive and ability to act anticompetitively toward third-party devices that compete with its proprietary set-top boxes); Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter, Attach., 51 Ways Mega Cable Could Sabotage Competition at 2-3 (asserting that New Charter would have the incentive and ability to prevent third-party devices from accessing content through CableCARD or otherwise, and to refuse to authenticate TVE apps on third-party devices that also offer online video apps).

[867] Public Knowledge et al. Petition at 17-18.

[868] *Id.* at 17.

[869] *Id.* at 18. Public Knowledge et al. do not identify specific industry best practices for CableCARD customer and technical support.

[870] Letter from Henry Goldberg and Devendra T. Kumar, Counsel for TiVo, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Jan. 21, 2016) (TiVo *Ex Parte* Letter) (citing *Charter Communications, Inc., Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules; Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, Memorandum Opinion and Order, 28 FCC Rcd 5212 (MB 2013) (*2013 Waiver Order*) (granting, with conditions, Charter's request for waiver of the set-top box integration ban)); Letter from Robert S. Schwartz, Counsel for Hauppauge, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-3 (filed Jan. 14, 2016) (Hauppauge *Ex Parte* Letter) (citing *2013 Waiver Order*). The Bureau's decision granting Charter's request for a two-year waiver of the integration ban preceded STELAR's enactment. The waiver initially was set to expire on April 18, 2015, but was subsequently extended through December 31, 2015, pursuant to STELAR. STELAR § 106(c); *2013 Waiver Order*, 28 FCC Rcd at 5222, para. 14.

[871] *See supra* note 870. The *2013 Waiver Order* indicated that some of the waiver conditions would apply beyond the waiver period. *2013 Waiver Order*, 28 FCC Rcd at 5218-20, para. 10 & nn.68, 75.

[872] *2013 Waiver Order*, 28 FCC Rcd at 5218-19, para. 10. Section 76.640 was adopted by the Commission in the *Second Plug and Play Order*, which was vacated by the D.C. Circuit in the *EchoStar* decision. *See supra* note 861. The CableCARD consumer support rules set forth in Sections 76.1205 and 76.1602 were adopted by the Commission in the *2010 CableCARD Order*, which was not at issue in *EchoStar*. *Implementation of Section 304 of the Telecommunications Act of 1996 et al.*, Third Report and Order and Order on Reconsideration, 25 FCC Rcd 14657 (2010) (*2010 CableCARD Order*). In the *2013 Waiver Order*, the Bureau noted that Charter voluntarily agreed to continue compliance with these rules notwithstanding the *EchoStar* case. *2013 Waiver Order*, 28 FCC Rcd at 5218-19, para. 10 & n.64.

downloadable security is available for purchase at retail.[873] According to TiVo and Hauppauge, the waiver was granted to Charter in part because its footprint was widely dispersed and the least densely concentrated among the six largest cable operators.[874] Because the transaction would substantially increase the number of subscribers served by Charter, including in some of the most densely populated metropolitan areas, New Charter should not be relieved of CableCARD support and supply obligations, assert TiVo and Hauppauge.[875]

252. As a result of these circumstances, TiVo and Hauppauge argue that the following conditions are needed to ensure that consumers are able to choose competitive retail set-top boxes in areas served by New Charter: (i) New Charter must continue to provision new CableCARDs to subscribers until no new or existing subscriber has asked New Charter for a CableCARD for a new retail device for 24 consecutive months;[876] (ii) New Charter must continue to abide by the terms and conditions of the *2013 Waiver Order*, including the obligations to support CableCARDs indefinitely and comply with the CableCARD technical rules in Sections 76.640, 76.1205, and 76.1602 of the Commission's rules,[877] to cooperate in a timely manner with any third-party device manufacturer seeking to develop retail devices that will use any downloadable security system New Charter employs, and to offer the hardware, software, specifications, and codes necessary to implement the downloadable security system on an open, royalty-free basis, to the extent such components are within Charter's rights to license;[878] and (iii) New Charter must ensure that CableCARD devices are able to access all of the linear channels that comprise the subscriber's cable package at an equivalent service price.[879]

253. NVIDIA Corporation (NVIDIA) and the Computer & Communications Industry Association (CCIA) request that the Commission impose conditions that relate to authentication of TVE applications on third-party devices.[880] NVIDIA claims that Charter does not authenticate certain TVE

[873] Pursuant to the terms of those conditions, as specified by the Bureau in the *2013 Waiver Order*, Charter would have to submit a declaration to the Bureau, under penalty of perjury, at the point that it wishes to stop provisioning new CableCARDs to subscribers. That declaration would have to attest to and be accompanied by documented evidence demonstrating that (1) a local or online seller has made available for retail purchase, to subscribers throughout Charter's entire footprint, a device utilizing Charter's downloadable security; and (2) such a device is available to all Charter subscribers at prices comparable to those charged for retail CableCARD devices. *2013 Waiver Order*, 28 FCC Rcd at 5218-20, para. 10 & n.65. To date, Charter has not submitted such a declaration.

[874] *2013 Waiver Order*, 28 FCC Rcd at 5218, para. 9; TiVo *Ex Parte* Letter at 2; Hauppauge *Ex Parte* Letter at 2-3.

[875] TiVo *Ex Parte* Letter at 2; Hauppauge *Ex Parte* Letter at 2-3. As noted above, the *2013 Waiver Order* stated that Charter "must continue, indefinitely, to support CableCARD devices and comply with the Commission's CableCARD technical rules in 47 CFR §§ 76.640, 76.1205 and 76.1602," but that Charter would no longer be required to provision new CableCARDs to subscribers once a third-party device compatible with Charter's downloadable security is available for purchase at retail. *See supra* notes 872-873 and accompanying text.

[876] TiVo *Ex Parte* Letter at 2; Hauppauge *Ex Parte* Letter at 3. Alternatively, Hauppauge proposes that the condition require New Charter to continue supplying CableCARDs to subscribers for 10 years. Hauppauge *Ex Parte* Letter at 3.

[877] TiVo *Ex Parte* Letter at 2; Hauppauge *Ex Parte* Letter at 3.

[878] TiVo *Ex Parte* Letter at 2.

[879] TiVo *Ex Parte* Letter at 2; Hauppauge *Ex Parte* Letter at 3.

[880] Letter from Markham C. Erickson, Counsel for NVIDIA, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Feb. 17, 2016) (NVIDIA Feb. 17, 2016, *Ex Parte* Letter); CCIA *Ex Parte*; Letter from Markham C. Erickson, Counsel for NVIDIA, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Jan. 20, 2016) (NVIDIA Jan. 20, 2016, *Ex Parte* Letter); *see also* Public Knowledge Mar. 14, 2016, *Ex Parte* Letter at 2 (noting NVIDIA's claims that Charter is refusing to authenticate TVE apps on third-party devices and arguing that any potential conditions must address this alleged harm).

apps on devices that run the Android TV operating system, such as NVIDIA's SHIELD Android TV Console (SHIELD TV), but that Charter authenticates these apps on other devices that use different operating systems, such as NVIDIA's SHIELD tablet device or Apple's iPad.[881] NVIDIA and CCIA assert that there is no technical reason that would prevent Charter from authenticating these apps on SHIELD TV, because other MVPDs authenticate these apps on SHIELD TV.[882] NVIDIA and CCIA note that Time Warner Cable and Bright House authenticate HBO Go on SHIELD TV and argue that this demonstrates the two companies are more accommodating of third-party devices.[883] NVIDIA and CCIA are concerned that, if the transaction is approved, New Charter might discontinue Time Warner Cable's policies toward third-party manufacturers.[884] NVIDIA and CCIA request that the Commission impose conditions that would prohibit New Charter from restricting, degrading, or otherwise interfering with the use of SHIELD TV and other lawful, non-harmful devices.[885]

254. The Applicants argue that there is no basis for concern that New Charter would fail to supply and support CableCARDs.[886] The Applicants state that Charter alone has over five million set-top boxes in circulation that utilize CableCARDs and that it would acquire millions more as a result of the transaction.[887] The Applicants claim that millions of New Charter customers would be unable to access the company's cable video service if New Charter were to discontinue providing and servicing CableCARDs used in New Charter's own devices and devices that subscribers purchase from third parties.[888] Therefore, the Applicants state, it would be in New Charter's interest to ensure the proper functioning of CableCARD devices for the foreseeable future.[889]

255. With regard to TVE authentication, the Applicants state that NVIDIA incorrectly claims that Charter has blocked access to TVE apps in order to competitively disadvantage SHIELD TV.[890] Time Warner Cable states that NVIDIA appears to misapprehend the process that determines MVPD subscribers' access to programming via TVE apps.[891] According to Time Warner Cable, a programming

[881] NVIDIA Feb. 17, 2016, *Ex Parte* Letter at 1-2; NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 1-9. NVIDIA's SHIELD tablet device runs a version of the Android operating system that is designed for mobile devices. NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 9. According to NVIDIA, Charter has refused to authenticate the following TVE apps on Android TV devices: HBO GO Android TV, Showtime Anytime, FXNOW, Fox Sports Go, Fox NOW, HGTV Watch, Watch Food Network, Watch Travel Channel, and STARZ Play. NVIDIA Feb. 17, 2016, *Ex Parte* Letter at 1-2; NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 1-4.

[882] NVIDIA Feb. 17, 2016, *Ex Parte* Letter at 2-3; CCIA *Ex Parte* Letter at 3-4; NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 4-9.

[883] NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 7 n.12; CCIA *Ex Parte* Letter at 2-4.

[884] NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 7 n.12; CCIA *Ex Parte* Letter at 2-4.

[885] NVIDIA Feb. 17, 2016, *Ex Parte* Letter at 4; CCIA *Ex Parte* Letter at 2-4; NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 10. CCIA also asserts that, to the extent that cable companies make downloadable apps available to be used on third-party devices, any non-harmful device that Charter's customers own should be allowed to access those apps. CCIA *Ex Parte* Letter at 4.

[886] Charter Feb. 9, 2016, *Ex Parte* Letter at 2.

[887] *Id.*

[888] *Id.*

[889] *Id.*

[890] Charter Feb. 9, 2016, *Ex Parte* Letter at 3; Letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Feb. 11, 2016) (Time Warner Cable Feb. 11, 2016, *Ex Parte*).

[891] Time Warner Cable Feb. 11, 2016, *Ex Parte* Letter.

provider must grant the MVPD rights to access the programmer's content via its TVE app.[892] For example, the Time Warner Cable states, where Time Warner Cable has been granted the contractual right to distribute content via a programmer's TVE app, Time Warner Cable should be listed on the menu of participating MVPDs on any device that is compatible with the app.[893] By contrast, the Time Warner Cable states, if it has not been granted the legal right to authenticate its subscribers' access via the programmer's TVE app, Time Warner Cable would not be listed as a participating MVPD.[894]

256. In addition, the Charter notes that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[895] However, Charter claims that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[896] The Applicants assert that contrary to the claims of NVIDIA and CCIA, Charter and Time Warner Cable do not "block" access to TVE apps.[897] The Applicants state that opponents to the Comcast-Time Warner Cable transaction praised Time Warner Cable's leadership in collaborating with programmers and third-party device developers on app development, TVE authentication, and related initiatives.[898] The Applicants represent that New Charter would follow that path upon completion of the transaction and that it would seek to offer video programming to its customers anywhere, anytime, and anyplace in order to provide the highest value service to them.[899]

257. In response, Public Knowledge states that while Charter's plan to make its video content available on third-party platforms is a more open model than other major MVPDs pursue, this plan does not fully alleviate concerns regarding New Charter's increased ability to influence the market for consumer video equipment.[900] Public Knowledge states that Charter subscribers should be able to use the device of their choice to access the video programming they have paid for, without having to rent equipment from Charter, and that third-party device manufacturers should be able to present video

[892] Time Warner Cable Feb. 11, 2016, *Ex Parte* Letter; *see also* Charter Feb. 9, 2016, *Ex Parte* Letter at 3 ("[P]rogrammers that create [a TVE] app will approach Charter to implement an authentication procedure and identify the devices on which they would like the app to run.").

[893] Time Warner Cable Feb. 11, 2016, *Ex Parte* Letter.

[894] *Id.*

[895] Charter Feb. 9, 2016, *Ex Parte* Letter at 3.

[896] *Id.*

[897] Time Warner Cable Feb. 11, 2016, *Ex Parte* Letter; Charter Feb. 9, 2016, *Ex Parte* Letter at 3. Charter states that it has worked diligently to provide its subscribers access to content over various platforms (e.g., iOS, Android) as well as on in-home devices such as Roku through Charter's app. Charter Feb. 9, 2016, *Ex Parte* Letter at 3.

[898] Application at 48.

[899] *Id.*; Katz Reply Decl. at para. 112.

[900] Public Knowledge Reply at 2, 11-12. Specifically, Charter has indicated that its Spectrum Guide is now available as an app on Roku devices and that it intends to place the app on other third-party devices that meet reasonable technical and security specifications. According to Public Knowledge, this is more than some other video providers have done. *Id.* at 11-12 (citing Opposition at 72-73). *See also* CCIA *Ex Parte* Letter at 4 ("Because of competitive limitations in the MVPD market, cable companies like Charter can selectively make their apps available to a limited array of devices that pose little competitive threat to their own [customer premises equipment] while at the same time feigning commitments to cultivating a thriving ecosystem.").

content via differentiated user interfaces and offer unique features.[901] Public Knowledge urges the Commission to consider a commitment from Charter to provide access to its video programming in a standards-based manner on third-party devices.[902]

258. *Discussion.* We agree with TiVo, Hauppauge, and others that subscribers should retain options for accessing cable video service on retail set-top boxes and other navigation devices purchased from vendors that are not affiliated with an MVPD. We find, however, that for New Charter subscribers the transaction is unlikely to result in fewer alternatives to leasing a set-top box from New Charter if New Charter continues to support retail CableCARD devices and comply with the CableCARD technical rules in Sections 76.1205 and 76.1602 of the Commission's rules.[903] Although cable operators widely employ CableCARDs in their set-top boxes today, the Commission's rules no longer compel them to do so. Despite this, however, Charter has stated that New Charter would continue to purchase, distribute, and service CableCARDs for years to come.[904] Similarly, CableLabs has stated publicly that cable operators would continue to support retail CableCARD devices.[905] By contrast, the record is devoid of a similar commitment from Time Warner Cable or Bright House. Assuming that New Charter fulfills its commitment in this proceeding to continue purchasing, distributing, and servicing CableCARDs, we believe the transaction will increase the likelihood that Time Warner Cable and Bright House subscribers will retain the option to purchase and use third-party CableCARD-enabled devices as an alternative to leasing a set-top box from New Charter.

259. Because cable operators are not required to use the CableCARD standard to support the separation of security requirement, former Time Warner Cable subscribers who become New Charter subscribers potentially could be left without any alternative to leasing equipment from New Charter. If New Charter implements a solution other than CableCARD for former Time Warner Cable subscribers that complies with the separated security requirement, it could abandon support of CableCARD, to the detriment of its subscribers. The same is true with respect to Bright House and its former subscribers. However, as mentioned above, Charter has stated that it would continue to purchase, distribute, and

[901] Public Knowledge Reply at 11-12; *see also* CCIA *Ex Parte* Letter at 4 ("To the extent that cable companies make downloadable apps available to be used on third-party devices, any non-harmful device that Charter's customers own should be allowed to access those apps.").

[902] Public Knowledge Reply at 12; Letter from John Bergmayer, Senior Staff Attorney, Public Knowledge, to Marlene H. Dortch, Secretary, FCC, MB Docket Nos. 15-149 and 15-64 et al. (filed Feb. 2, 2016).

[903] We believe that adherence to these standards is particularly important for New Charter because its use of downloadable security to meet Section 76.1204(a)(1)'s separation of security requirement could lead New Charter to abandon CableCARD support at a time when CableCARD is still a method that retail navigation devices rely on to decrypt cable service. As stated above, the CableCARD consumer support rules set forth in Sections 76.1205 and 76.1602 were adopted by the Commission in the *2010 CableCARD Order*, which was not at issue in *EchoStar*. Charter previously committed to continue compliance with the CableCARD consumer support rules set forth in Sections 76.1205 and 76.1602, notwithstanding the *EchoStar* decision. *See supra* note 872. The *Navigation Devices NPRM and MO&O* seeks comment on whether the consumer support rules in Section 76.1205(b) continue to serve a useful purpose and should be retained following *EchoStar*, noting that the court's decision did not vacate or even address the consumer support rules for cable operators that choose to continue to rely on the CableCARD standard in order to comply with the separated security requirement.

[904] Charter Feb. 9, 2016, *Ex Parte* Letter at 2.

[905] Ralph Brown, Chief Technology Officer, CableLabs, *Downloadable Security and the Future of CableCARDs*, http://www.cablelabs.com/downloadable-security-and-the-future-of-cablecards/ (last visited Feb. 23, 2016) (claiming that cable operators "have all committed to supporting retail CableCARD devices for the foreseeable future.").

service CableCARDs in both proprietary and retail devices, even as it moves toward deployment of Worldbox, which would utilize a downloadable security solution.[906]

260. Pending the development and implementation of new standards that would assure a commercial market for competitive navigation devices, we believe it is important that New Charter honor its commitment to continue support of CableCARD so that subscribers continue to have alternatives to leasing equipment from their cable provider. To ensure that New Charter fulfills this commitment,[907] and to provide greater confidence that Time Warner Cable and Bright House subscribers can continue to use retail CableCARD devices to access cable video programming, we adopt Charter's commitment to continue purchasing, distributing, and servicing CableCARDs as a condition of our approval of this transaction, with certain clarifications that will improve our ability to enforce these conditions.

261. Accordingly, we require that, as a condition of our approval of the transaction, New Charter must continue to provision CableCARDs to any new or existing subscribers that request CableCARDs for use in a third-party device. In addition, New Charter must continue to support CableCARD devices[908] and comply with the CableCARD technical rules in Sections 76.1205 and 76.1602 of the Commission's rules, including continued support of CableCARD self-installation,[909] M-Card,[910] switched digital video solutions,[911] uniform CableCARD fees,[912] and the bring-your-own-box discount[913]

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[906] *See supra* note 904 and accompanying text.

[907] As stated above, Charter's use of downloadable security to meet the separation of security requirement could lead New Charter to abandon CableCARD support at a time when CableCARD is still a method that retail navigation devices rely on to decrypt cable service. *See supra* note 903. We note that New Charter intends to deploy Worldbox throughout all of New Charter's footprint **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. Charter, White Paper, Additional Evidence Regarding Claimed Benefits of the Transaction, at 16 (Claimed Benefits White Paper), transmitted by John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Dec. 4, 2015). Because Worldbox uses downloadable security instead of CableCARDs, New Charter presumably will no longer utilize CableCARDs to deliver video programming to proprietary set-top boxes in subscribers' homes once it finishes replacing its proprietary CableCARD-enabled devices with Worldbox.

[908] By "support" we mean that as part of this condition, New Charter must continue to simulcrypt its linear QAM-based video service so that third party CableCARD devices remain operable pursuant to: (i) SCTE 40 2011: "Digital Cable Network Interface Standard;" (ii) ANSI/SCTE 65 2016: "Service Information Delivered Out-of-Band for Digital Cable Television;" (iii) ANSI/SCTE 54 2015: "Digital Video Service Multiplex and Transport System Standard for Cable Television; (iv) ATSC A/65:2013: "Program and System Information Protocol for Terrestrial Broadcast and Cable;" (v) SCTE 28 2012: "Host-POD Interface Standard;" and (vi) ANSI/SCTE 41 2011: "POD Copy Protection System." To ensure that subscribers are able to attach retail devices they own to their leased set-top boxes and access their subscription services through those third-party devices, we also require that New Charter continue to include both (i) a DVI or HDMI interface, and (ii) a connection capable of delivering recordable high-definition video and closed captioning data in an industry standard format on all high-definition set-top boxes, except unidirectional set-top boxes without recording functionality, acquired by New Charter for distribution to New Charter subscribers. New Charter must also continue to ensure that such high-definition set-top boxes comply with an open industry standard that provides for audiovisual communications including service discovery, video transport, and remote control command pass-through standards for home networking.

[909] *See* 47 CFR § 76.1205(b)(1).

[910] *See* 47 CFR § 76.1205(b)(2) (requiring MVPDs to provide multi-stream CableCARDs unless subscribers request a single stream CableCARD.).

[911] *See* 47 CFR § 76.1205(b)(4) (requiring MVPDs to provide CableCARD-compatible navigation devices that can tune to switched digital channels.).

[912] *See* 47 CFR § 76.1205(b)(5)(ii)(B)(*1*). Charter currently offers its subscribers CableCARDs for lease with a fee of $2 per month. Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable &

(continued….)

requirement.[914] New Charter must continue compliance with these requirements for seven years after the transaction's closing date.[915] We find that these conditions will impose minimal burdens, if any, on New Charter and that any potential burdens are outweighed by the substantial benefits for New Charter subscribers. Although the *EchoStar* decision eliminated the requirement that cable operators use the CableCARD standard to support the separation of security requirement, nearly all cable operators continue to rely on that standard in order to comply with the separated security requirement, which remains in effect. Moreover, as noted above, NCTA and others have stated publicly that cable operators would continue to support third-party CableCARD devices,[916] and in this proceeding Charter has stated that New Charter would continue to purchase, distribute, and service CableCARDs for years to come.[917] Thus, our decision to adopt conditions requiring New Charter to continue supporting the use of CableCARD devices requires the company to fulfill a commitment that it has already made and that other cable operators have made as well.

262. We decline to impose conditions relating to the availability of MVPD apps on third-party devices and the development of new standards to promote the competitive availability of navigation devices in furtherance of Section 629 of the Act, as suggested by CCIA, Public Knowledge, and others.[918] We find that these petitioners raise broader regulatory questions that are more appropriately addressed in

(Continued from previous page)
Telecommunications Association, to Marlene H. Dortch, Secretary, FCC, CS Docket No. 97-80, Attach., Charter Communications FCC CableCARD Reporting, October 1, 2015 to December 31, 2015, at 1 (filed Jan. 29, 2016).

[913] *See* 47 CFR § 76.1602(b)(7), (8).

[914] New Charter's continued compliance with these rules is important to ensure that its customers can continue their use of retail CableCARD equipment. We note that, pursuant to the *2013 Waiver Order*, Charter has already committed to continue compliance with these rules for an unspecified time period notwithstanding the *EchoStar* decision. *2013 Waiver Order*, 28 FCC Rcd at 5218-19, para. 10 & n.64. In addition, the Applicants themselves have stated that New Charter would continue to purchase, distribute, and service CableCARDs for years to come. Charter Feb. 9, 2016, *Ex Parte* Letter at 2. The *Navigation Devices NPRM and MO&O* seeks comment on whether the CableCARD consumer support rules in Section 76.1205(b) continue to serve a useful purpose and should be retained following *EchoStar*. *Navigation Devices NPRM and MO&O* at 43-45, paras. 87-91. Should the Commission eliminate or modify the consumer support rules set forth in Section 76.1205(b), New Charter will be required to comply only with those rules the Commission retains. However, New Charter must continue compliance with Sections 76.640 and 76.1602 of our rules as stated herein. Once the Commission adopts new rules implementing Section 629 of the Act, New Charter will be required to comply with those rules as well. *See generally Navigation Devices NPRM and MO&O*.

[915] Notwithstanding the seven-year term of this condition, New Charter may submit a request to the Media Bureau to modify or abrogate the requirements to provision CableCARDs to subscribers, support CableCARD devices, and comply with the CableCARD technical rules in Sections 76.1205 and 76.1602 of the Commission's rules when New Charter subscribers are able to purchase a third-party retail device that can access New Charter's video programming pursuant to new rules, if any, that the Commission adopts to implement Section 629 of the Act. New Charter shall, in such request, submit to the Media Bureau a declaration, under penalty of perjury, attesting to and accompanied by documentation demonstrating that local or online sellers have made available for retail purchase, to subscribers throughout New Charter's footprint, a device that can access New Charter's video programming pursuant to any new rules that the Commission has adopted to implement Section 629 of the Act.

[916] *See supra* note 905 and accompanying text; *see also* Jeff Baumgartner, Multichannel News, *Comcast, TiVo Working On Non-CableCARD Approach to Support Comcast's Linear TV & VOD Mix on TiVo Boxes Sans Security Modules* (July 15, 2014), http://www.multichannel.com/news/tv-apps/comcast-tivo-working-non-cablecard-approach/375989 ("In the [FCC filing], Comcast said it had likewise committed to continue providing and supporting CableCARDs in retail devices notwithstanding the D.C. Circuit's *EchoStar* decision").

[917] *See supra* note 904.

[918] *See* CCIA *Ex Parte* Letter at 4; Public Knowledge et al. Petition at 17-18; Public Knowledge Reply at 11-12.

the rulemaking context. As discussed above, earlier this year the Commission released a Notice of Proposed Rulemaking proposing new rules that are intended to assure a competitive market for equipment that can access multichannel video programming.[919] Thus, we expect that many of the regulatory policy issues raised by Public Knowledge and others will likely be addressed in the ongoing rulemaking proceeding.[920] Although we conclude that these issues are better addressed in a broader, industry-wide context, we believe that in the meantime New Charter's continued support of CableCARD devices will help ensure that subscribers continue to have alternatives to leasing a set-top box from New Charter.

263. We also decline to impose conditions to address concerns expressed in the record about TVE customer authentication on certain devices. NVIDIA and CCIA claim that Charter has refused to authenticate TVE apps on SHIELD TV and other Android TV devices because some subscribers might prefer to use those devices rather than leasing a set-top box from Charter.[921] However, none of the programmers referenced by NVIDIA have individually raised any authentication concerns in the record,[922] and neither NVIDIA nor CCIA provide evidence that the programmers at issue requested authentication from Charter or were denied authentication. As the Applicants note, authenticating programmer apps requires the programmer's involvement.[923] Based on the comments in the record and our separate review of the materials submitted by the Applicants, we find that there is insufficient evidence that Charter refused to authenticate TVE apps on SHIELD TV or other Android TV devices because they compete with Charter's devices.[924] Therefore, we find that the transaction is unlikely to result in a public interest harm that warrants a condition relating to TVE customer authentication.

5. Supply, Quality, and Diversity of Video Programming

264. In this section, we consider whether the proposed transaction would increase the Applicants' incentive or ability to engage in behavior that is likely to reduce the supply, quality, or diversity of video programming. After considering factors affecting the likelihood of competitive harms to programmers, we examine how New Charter's increased size may confer greater leverage when negotiating with programmers and what effects that might have on consumer welfare. We also address concerns raised by programmers, including diverse and independent programmers and public, educational, and governmental (PEG) channels. We conclude that the transaction does not present transaction-specific harms that necessitate the adoption of conditions specifically related to program carriage, program diversity, or PEG channels.

a. Carriage Decisions for Diverse, Independent Programmers

265. *Background.* In order to prevent MVPDs from taking undue advantage of programming vendors, Congress enacted Section 616 of the Act, which directs the Commission to "establish regulations

[919] *See generally Navigation Devices NPRM and MO&O*.

[920] *See, e.g., id.* at 10-11, paras. 16-19 (seeking comment on the process that an MVPD uses to decide whether to allow a retail device to access its services, including whether retail navigation device developers have asked MVPDs to develop applications for their services and been denied).

[921] *See* NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 9-10 (claiming that Charter blocks certain TVE apps on SHIELD TV, including HBO Go, Fox Now, Fox Sports Go, Home & Garden TV, Food Network, Watch Travel Channel, and STARZ Play); CCIA *Ex Parte* Letter at 1-4; NVIDIA Feb. 17, 2016, *Ex Parte* Letter at 1-2; NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 4-10; *see also* Public Knowledge Mar. 14, 2016, *Ex Parte* Letter at 2 (noting NVIDIA's claim that Charter refuses to authenticate TVE apps on Android TV devices).

[922] *See generally* Time Warner Inc. Jan. 13, 2016, *Ex Parte* Letter; Starz Response.

[923] Charter Feb. 9, 2016, *Ex Parte* Letter at 3; Time Warner Cable Feb. 11, 2016, *Ex Parte* Letter; *see also* NVIDIA Jan. 20, 2016, *Ex Parte* Letter at 4 ("Use of the TVE app typically is governed by contract between the cable television programmer and the MVPD.").

[924] *See* 47 U.S.C. § 309(d).

governing program carriage agreements and related practices between cable operators or other [MVPDs] and video programming vendors."[925] Accordingly, the Commission established rules governing program carriage and adopted procedures for the review of program carriage complaints as well as appropriate penalties and remedies.[926] As required under the statute, the Commission's program carriage rules specifically prohibit a cable operator or other MVPD from engaging in three types of conduct: (1) requiring "a financial interest in any program service as a condition for carriage" of such service;[927] (2) coercing a programmer to grant exclusive carriage rights or retaliating against a programmer for refusing to grant such rights;[928] and (3) engaging in conduct that unreasonably restrains "the ability of an unaffiliated programming vendor to compete fairly" by discriminating against such vendor "on the basis of affiliation or non-affiliation."[929] Notwithstanding our program carriage rules, the Commission has held that certain transactions present additional risks that the rules do not sufficiently alleviate and has imposed additional conditions on the merging parties involved in those transactions.[930]

266. Our public interest evaluation necessarily encompasses the "broad aims of the Communications Act," which include, among other things, a deeply rooted policy of promoting a diversity of information sources and services to the public.[931] Diversity and localism are longstanding core Commission policy objectives.[932] The overlapping diversity and localism objectives seek to ensure the dissemination of local programming "from as many different sources, and with as many facets and colors as possible."[933] The discussion below addresses the issues raised by commenters concerning the impact of the proposed transaction on diverse, independent video programmers.

267. *Positions of the Parties.* WGAW asserts that New Charter's increased scale would enhance its power to deny carriage to programming competitors.[934] WGAW further claims that New Charter could advantage Discovery networks by placing unaffiliated channels in less desirable positions within basic tiers.[935] The Parents Television Council states that Charter, unlike Time Warner Cable, has

[925] 47 U.S.C. § 536. Section 616 was added to the Act by the 1992 Cable Act.

[926] *See Implementation of Sections 12 and 19 of the Cable Television Consumer Protection and Competition Act of 1992; Development of Competition and Diversity in Video Programming Distribution and Carriage*, Second Report and Order, 9 FCC Rcd 2642 (1993); *see also Implementation of the Cable Television Consumer Protection And Competition Act of 1992; Development of Competition and Diversity in Video Programming Distribution and Carriage*, Memorandum Opinion and Order, 9 FCC Rcd 4415 (1994). The Commission's program carriage rules are set forth at 47 CFR §§ 76.1300-76.1302.

[927] 47 CFR § 76.1301(a); *see also* 47 U.S.C. § 536(a)(1).

[928] 47 CFR § 76.1301(b); *see also* 47 U.S.C. § 536(a)(2).

[929] 47 CFR § 76.1301(c); *see also* 47 U.S.C. § 536(a)(3).

[930] *See, e.g.*, *Comcast-NBCU Order*, 26 FCC Rcd at 4287-88, paras. 121-22.

[931] *See AT&T-DIRECTV* Order, 30 FCC Rcd at 9140, para. 19; *Comcast-NBCU Order*, 26 FCC Rcd at 4248, para. 23; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575, para. 26.

[932] *See Comcast-NBCU Order*, 26 FCC Rcd at 4316, 4320, paras. 187, 197 (citing *2002 Biennial Regulatory Review – Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, Report and Order and Notice of Proposed Rulemaking, 18 FCC Rcd 13620, 13627, para. 17 (2003); *Broadcast Localism*, Notice of Inquiry, 19 FCC Rcd 12425 (2004)).

[933] *See Comcast-NBCU Order*, 26 FCC Rcd at 4320, para. 197 (citing *Associated Press v. United States*, 326 U.S. 1, 28 (1945)).

[934] WGAW Petition at 16; *see also* NAB Reply at 4-5.

[935] WGAW Petition at 16-17; WGAW Reply at 12; *see also* Public Knowledge et al. Petition at 16. Several independent programmers agree that New Charter's increased size may be detrimental to diverse, independent

(continued….)

supported cable subscribers having greater control over the programming they pay for and urges the Commission to consider "reasonable conditions on the proposed merger that will . . . protect the ability of smaller, independent family-friendly programmers to serve the unique needs of parents and families."[936]

268. Some independent programmers raised concerns that the proposed transaction would result in greater difficulty obtaining carriage or less favorable terms of carriage agreements with New Charter. Entravision Communications Corporation (Entravision)[937] claims that New Charter would control access to 15.5 percent of all MVPD subscribers in the top 20 Latino DMAs and be the dominant MVPD in six critical DMAs, including Los Angeles and three key New York boroughs, allowing it to exercise greater control over Latino programming.[938] This buying power, Entravision claims, would result in lower programming prices paid for content, including Latino networks, ultimately causing less content production and decreased quality and variety of Latino programming.[939] Aspire-UP state that, while Time Warner Cable and Bright House are two of their largest and most committed distributors, Charter does not carry their programing.[940] Several commenters criticized the Applicants' commitment to diversity.[941] Accordingly, they ask for conditions requiring New Charter to: (1) commit to conditions maintaining the programming diversity of independent channels on the Time Warner Cable and Bright House systems for a limited time period, e.g., five years;[942] (2) negotiate in good faith with the independent channels to

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programmers that have limited or no carriage on New Charter's system. *See* Entravision Petition at i; Aspire-UP Comments at 3-4. Commenters' claims that New Charter's increased scale would allow it to negotiate payments to unaffiliated programmers below market rates or demand contract provisions, *see infra* Section V.G.5, that prevent or restrict licensing to OVDs are discussed *supra* at Section V.F. *See, e.g.*, WGAW Petition at 17.

[936] Letter from Timothy F. Winter, President, Parents Television Council, to FCC, MB Docket No. 15-149, at 2, 5-6 (filed Nov. 2, 2015) (Parents Television Nov. 2, 2015, *Ex Parte* Letter).

[937] Entravision filed a request to withdraw its Petition to Deny and its Reply. Entravision Request for Withdrawal of Petition to Deny at 1 (filed Jan. 29, 2016) (Entravision Withdrawal Request). However, in accordance with longstanding practice, we will consider the merits of Entravision's Petition and Reply to ensure the public interest will be served by the grant of this Application, notwithstanding Entravision's request to withdraw. *See Stockholders of CBS Inc. (Transferor) and Westinghouse Elec. Corp. (Transferee)*, Memorandum Opinion and Order, 11 FCC Rcd 3733, 3739, 3741, paras. 8, 14 (1995) ("consistent with our precedent, we will consider the merits of [the petitioner's] allegations against the applications to insure that the public interest will be served by grant of these applications") (*citing Application of Booth American Co. for Renewal of License for Stations WJVA and WRBR(FM), South Bend, Indiana*, File Nos. BR-1877 et al., Memorandum Opinion and Order, 58 F.C.C.2d 553, 554 (1976)); *see also, e.g., KEGG Communications, Inc*., Order to Show Cause Hearing Designation Order and Notice of Opportunity for Hearing, 20 FCC Rcd 5768, 5768 n.1 (2005).

[938] Entravision Petition at 10-11.

[939] Entravision Petition at 2-3, 9-12; Entravision Reply at 2-7; *see also generally* Kwoka Analysis; Entravision Reply, Attach., Economic Analysis of the Effects of the Proposed Merger of Charter Communications, Time Warner Cable, and Advance/Newhouse Partnership on Program Providers Serving the Latino Market (Kwoka Reply). For a more detailed analysis of Entravision's arguments, *see infra* Section V.G.5.b(ii).

[940] Aspire-UP Comments at 3-4; *see also* Letter from Reta Peery, EVP and General Counsel, UP Entertainment, LLC, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (emphasizing the importance of continued carriage in Time Warner Cable's New York and Los Angeles markets).

[941] *See, e.g.*, Aspire-UP Comments at 3; Greenlining Institute Petition at 12-17; Greenlining Institute Reply at 3; DISH Petition at 37, 41; beIN SPORTS Mar. 21, 2016, *Ex Parte* Letter at 1; Letter from Adam Swart, National Association of African-American Owned Media and Entertainment Studios, to FCC, MB Docket No. 15-149, at 1-2, 7 (filed Apr. 4, 2016) (NAAOM Apr. 4, 2016, *Ex Parte* Letter).

[942] Aspire-UP Comments at 4; *see also* Entravision Reply at 5, 8 (supporting conditions that would expand carriage of diverse, independent networks on New Charter's systems); Letter from Representative Stacey Y. Abrams, Georgia State House of Representatives, to Commissioners, FCC, MB Docket No. 15-149, at 1 (filed Nov. 9, 2015) (continued….)

renew the carriage agreements with New Charter when they expire and continue carriage during negotiations;[943] and (3) report to the Commission any failure to continue carriage.[944] Others claimed large MVPDs repeatedly noted that independent programmers have no leverage and refuse to launch new channels unless forced to do so.[945] The Alliance for Community Media and the Alliance for Communications Democracy (ACM-ACD) also argue that New Charter would have the incentive and ability to engage in practices that would reduce the availability of PEG programming to potentially free up system capacity for a cable operator's preferred uses.[946] Herring Networks claims that because Charter currently does not carry Herring or three other "emerging" independent news channels and New Charter would acquire Time Warner Cable's and Bright House's local and regional news channels, the Commission should adopt a condition requiring New Charter to add three independent news channels within one year of the close of the transaction.[947]

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(supporting conditions that would enforce New Charter's commitment to programming diversity); Letter from Elise Stubbe, Counsel for NRB Network, Inc., to FCC, MB Docket No. 15-149, at 3-4 (filed Mar. 25, 2016); Parents Television Nov. 2, 2015, *Ex Parte* Letter at 3 (suggesting a condition that New Charter maintain existing carriage of family-friendly networks for at least five years following the proposed transaction); Letter from Michael G. Fletcher, Chief Executive Officer, Ride Television Network, Inc., to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Mar. 8, 2016) (supporting conditions that require New Charter to launch more independent channels); NAAOM Apr. 4 *Ex Parte* Letter at 1, 8 (urging denial or conditions ensuring that a "substantial portion" of New Charter's programming budget is spent on 100 percent African American owned media). NAAOM raised its concerns for the first time in its April 4, 2016 *Ex Parte* Letter. Under the pleading schedule established for this proceeding, comments and petitions to deny were due October 13, 2015. *See Public Notice*, 30 FCC Rcd at 9916. NAAOM had ample time to submit its comments during the established pleading cycle, but it failed to do so and offers no justification now for its late submission. As was emphasized in the *Public Notice*, to allow the Commission to consider fully all substantive issues regarding the Application in as timely and efficient a manner as possible, petitioners and commetners must raise all issues in their initial filings. New allegations may not be raised in responses or replies and, absent a showing of good cause, any issues not timely raised may be disregarded by the Commission. *Public Notice*, 30 FCC Rcd at 9918 (citing 47 CFR § 1.45(c)). We therefore dismiss NAAOM's request as untimely. *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9150, 9151, paras. 42, 46.

[943] Aspire-UP Comments at 4.

[944] *Id.*

[945] RIDE TV Feb. 3, 2016, *Ex Parte* Letter at 1. RIDE TV adds that the position of independent programmers is exacerbated by the large programmer practice of bundling channels, which forces MVPDs to launch all large programmer channels, absorbing any carriage capacity. *Id.*; *see also* TheBlaze Comments at 1-2; One World Sports Oct. 29, 2015, *Ex Parte* Letter at 2.

[946] ACM-ACD allege these preferred uses of capacity could include unaffiliated programming from which the operator derives advertising revenue, affiliated programming, or additional broadband capacity. Petition to Deny of the Alliance for Community Media and the Alliance for Communications Democracy, MB Docket No. 15-149, at 11-13 (filed Oct. 13, 2015) (ACM-ACD Petition); Alliance for Community Media and the Alliance for Communications Democracy Reply at 2 (ACM-ACD Reply).

[947] Herring's complete proposed condition states: "No later than one year after the closing of the merger, New Charter shall certify to the Commission that each of no fewer than three independent, unaffiliated news services are available to no fewer than 75% of its subscribers on service tiers that are no less widely subscribed to than those on which Timer Warner Cable-affiliated news services are carried as of the date of the Commission's approval of the merger." Herring Networks Feb. 19, 2016, *Ex Parte* Letter, enclosing document titled, "Proposed Condition: New Charter Must Make Room on its Platform for Independent News Services." *See also* Letter from Charles Herring, President, Herring Networks, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Presentation titled "Anti-Competitive Practices Hindering Independent Programmers & Diversity" at 14-17 (filed Feb. 9, 2016). beIN SPORTS also seeks a condition that would require New Charter to carry on all of its systems for ten years one or more independent sports network, including without limitation on channel positioning in the sports programming neighborhood and on the most widely available programming tier, in a manner equal or comparable to other

(continued….)

269. In contrast, numerous other diverse, independent programmers support the proposed transaction, with most describing Charter's history of giving them favorable carriage terms and of supporting diversity in programming.[948] Some programmers add that the proposed transaction would extend this treatment to Time Warner Cable subscribers and generally increase carriage opportunities for diverse, independent programmers.[949]

270. The Applicants assert that New Charter would have no incentive or ability at the national level to discriminate against unaffiliated programming in carriage decisions because it would control only regional and local programming that does not compete with national programming.[950] The Applicants

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nationally distributed sports programming services on any navigation user interface and without limiting the independent sports network's ability to use ADMs. beIN SPORTS Mar. 21, 2016, *Ex Parte* Letter at 3.

[948] *See, e.g.*, RFD-TV Comments at 2, 9-11; One World Sports Oct. 29, 2015, *Ex Parte* Letter at 1-3, 5; Letter from Stuart I. Friedman, Friedman & Wittenstein, Counsel, One World Sports, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Nov. 19, 2015); TheBlaze Comments at 2; Letter from Alfred C. Liggins, III, CEO and Chairman, TV One, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 12, 2015) (TV One Nov. 12, 2015, *Ex Parte* Letter); Letter from William J. Abbott, President and CEO, Crown Media Family Networks, to Thomas Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 12, 2015); Letter from Charles Segars, CEO, Ovation, to Chairman and Commissioners, FCC, MB Docket No. 15-149, at 1 (filed Nov. 12, 2015) (Ovation Nov. 12, 2015, *Ex Parte* Letter); Letter from David Cerullo, Chairman and CEO, INSP LLC, to Chairman and Commissioners, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 16, 2015) (INSP Nov. 16, 2015, *Ex Parte* Letter); Letter from Mark Cuban, Chairman and Founder, AXS TV, to Chairman and Commissioners, FCC, MB Docket No. 15-149, at 1 (filed Nov. 17, 2015) (AXS TV Nov. 17, 2015, *Ex Parte* Letter); Letter from Marlen Abrahantes, CEO, SIMA Communications Station Group, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Aug. 20, 2015); Letter from Michael Schwimmer, CEO, Fuse Media, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 20, 2015); Letter from Sharon Rechter, Co-Founder, BabyFirst, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Nov. 12, 2015); Letter from Phil Blazer, President/CEO, Jewish Life Television, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Sept. 18, 2015); Letter from Luis Torres-Bohl, President, Castalia Communications Corporation, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Aug. 14, 2015); *see also* Letter from George Antuna, Chairman, Hispanic Leadership Alliance, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Aug. 28, 2015); Letter from Penny Fraumeni, Vice President, Hacienda La Puente Unified School District, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Nov. 2, 2015); Letter from Martin Castro, President and CEO, Mexican American Opportunity Foundation, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Aug. 18, 2015); Letter from Tilden J. Fleming, City Manager, Kingsport, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Oct. 20, 2015) (Kingsport Oct. 20, 2015, *Ex Parte* Letter); Letter from Deborah Villar, CEO, Bienvenidos Community Health Center, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Aug. 28, 2015); Letter from Sandra Cavazos, Executive Director, Imaginarium of South Texas, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Dec. 22, 2015); Letter from Alice A. Huffman, President, California State Conference of the National Association for the Advancement of Colored People, to Marlene Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Aug. 3, 2015); Letter from Aubry Stone, President and CEO, California Black Chamber of Commerce, to Marlene Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Aug. 14, 2015).

[949] *See, e.g.*, RFD-TV Comments at 2, 9-10 (stating that Time Warner Cable and Bright House have not renewed a carriage agreement that expired in March 2014 and that RFD-TV is available to 4 percent of their subscribers); TheBlaze Comments at 3; One World Sports Oct. 29, 2015, *Ex Parte* Letter at 5; TV One Nov. 12, 2015, *Ex Parte* Letter at 1-2; INSP Nov. 16, 2015, *Ex Parte* Letter at 2; AXS TV Nov. 17, 2015, *Ex Parte* Letter at 1; Ovation Nov. 12, 2015, *Ex Parte* Letter at 1; Parents Television Comments at 2; Letter from Timothy F. Winter, President, Parents Television Council, to FCC, MB Docket No. 15-149, at 1-2 (filed Apr. 4, 2016) (stating that "ongoing investigative work" shows Charter has worked in good faith to ensure availability of family-friendly programming and the transaction would be in the public interest, omitting previously-proposed condition that New Charter maintain carriage of existing family-friendly programming. *See supra* note 942.

[950] Application at 58-59.

further assert that there are no close substitutes for its RSNs, so New Charter would have no incentive to disfavor unaffiliated programming.[951] With respect to Discovery programming, the Applicants assert that Malone and Advance/Newhouse would not prevent New Charter from carrying high quality competing programming because they would be harmed if New Charter loses subscribers.[952]

271. With regard to Latino programming, the Applicants claim that they would lack the ability to harm independent Spanish-language programmer Entravision because the proposed transaction results in at most an estimated **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent increase in penetration into Hispanic markets.[953] They further claim that New Charter would build on Charter's strong record of carrying diverse, independent programming and Time Warner Cable's best practices regarding diversity. Accordingly, networks such as Aspire and UP would receive full and fair consideration for carriage based on their value.[954] Finally, the Applicants indicate that although discussions may not always result in agreements, no competing programmer has raised or threatened to raise a program carriage complaint against Charter.[955] Further, Charter maintains that Malone is already its largest shareholder today and that the record does not reflect any evidence that Charter's prior decisions to drop independent networks were based on an intent to favor of Discovery programming.[956]

272. The Applicants submitted an economic analysis by Steven Salop and others addressing whether Advance/Newhouse and Malone would have financial incentives to instruct New Charter to refuse to carry certain national programming that competes with their affiliated programming. The analysis concludes that the Applicants would be unlikely to have such incentives[957] as such a strategy would be unprofitable for Malone and Advance/Newhouse.[958] The analysis assumes that the profitability of New Charter's refusal to carry a network that competes with Discovery programming depends on the number of New Charter subscribers that would switch to another MVPD to access the foreclosed programming, the margin New Charter would lose on those subscribers, the fraction of the remaining New Charter subscribers that would increase viewership of Discovery programming, the advertising revenue Discovery would gain from that increased viewership, and the relative affiliate fees Discovery charges to New Charter and other MVPDs.[959] Using the Applicants' subscriber and viewership data and SNL Kagan affiliate fee and advertising revenue estimates, the analysis concludes that the revenue New Charter would lose from refusal to carry the National Geographic Channel (which the Applicants posit as the closest substitute for the Discovery channel) outweighs any potential advertising revenue gained by Discovery (assuming conservative subscriber departure rates). The analysis also finds adopting this

[951] *Id.* at 59.

[952] Opposition at 51.

[953] *Id.* at 63.

[954] Application at 40-41; Opposition at 64.

[955] Charter Response to Information Request at 124; Time Warner Cable Response to Information Request at 62; Advance/Newhouse Response to Information Request at 22.

[956] *See* CHR2-DOJ-00000133122, **[BEGIN HIGHLY CONF. INFO.]**

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[957] Salop Decl. at para. 86.

[958] *Id.* at paras. 94-99.

[959] *Id.* at para. 90.

foreclosure strategy to other popular unaffiliated networks that compete with Starz, such as HBO and Showtime, would also be unprofitable for New Charter or Malone.[960]

273. *Discussion.* For these reasons, we conclude that the proposed transaction is unlikely to increase New Charter's incentive or ability to discriminate against or foreclose competing independent programming in favor of programming owned by Advance/Newhouse or Malone. Moreover, if a programmer believes New Charter is unlawfully refusing carriage or demanding unlawful terms and conditions of carriage, our program carriage rules and associated complaint process provide an avenue for relief. As stated above in Section V.E.4.b, we conclude that some New Charter shareholders would hold attributable interests in popular programming including Discovery and Starz. However, no programmers have alleged that their competing programming would face discriminatory treatment in carriage as a result of New Charter's programming interests. Furthermore, no evidence in the record refutes the Applicants' economic analysis concluding that Advance/Newhouse and Malone would be unlikely to profit from New Charter's refusal to carry programming that competes with Discovery or Starz.

274. WGAW makes only general claims of New Charter's ability to foreclose or discriminate in carriage, without pointing to any specific evidence or analysis of such conduct. Moreover, claims by Entravision and Public Knowledge that the proposed transaction may decrease diversity of programming is contradicted by several independent programmers pointing to favorable carriage decisions by Charter and anticipation that New charter will continue such decisions.[961] In addition, we find that Entravision's concerns regarding New Charter's 15.5 percent share of MVPD subscribers in the top 20 Latino DMAs is not transaction-specific. Entravision's analysis is based on the incorrect assumption that Time Warner Cable and Bright House negotiate with programmers separately, when in fact Time Warner Cable already negotiates program carriage agreements for Bright House. Correcting for this assumption results in only a small change in Charter's share of Latino subscribers post-transaction. Aspire-UP's allegation that New Charter would not continue their carriage agreements with Time Warner Cable and Bright House is speculative and, therefore, we decline to impose the conditions those commenters seek. We also find that Herring's nationally-distributed news channel does not compete with Time Warner Cable's and Bright House's local and regional programming and decline to impose the condition it seeks. We note further that many of the issues raised by commenters in this area, as discussed above, are not transaction-specific, but rather deal with industry-wide issues, and, thus, are more appropriately addressed in our recently-commenced proceeding to consider the availability of diverse, independent programming.[962]

275. Additionally, we find that Salop's economic analysis showing that New Charter does not have an incentive to discriminate is sound and we agree with its conclusions. For the above reasons, we do not find that the proposed transaction presents program carriage concerns that would disproportionately affect diverse, minority-owned, minority-focused, or independent video programmers. We also find that the Commission's program carriage rules are sufficient to address any allegations of discriminatory conduct that may arise. Therefore, we find it unnecessary to adopt conditions related to independent or diversity-related program carriage, and decline to do so.

[960] *Id.* at para. 104.

[961] *See supra* note 948.

[962] *See Promoting the Availability of Diverse and Independent Sources of Video Programming*, Notice of Inquiry, FCC 16-19 (Feb. 18, 2016).

b. Creation of New Programming and Quality in the Video Programming Market

(i) Video Programming Market

276. *Positions of the Parties.* Some commenters argue that New Charter's ability to bargain for lower programming prices would cause programmers to reduce investments in the quantity and quality of programming.[963] Entravision and Public Knowledge et al. contend that if programmers are forced to accept lower prices from New Charter, they would be forced to reduce the quality of their programming and to charge higher prices to smaller video distributors, raising consumer costs and ultimately harming competition and the public interest.[964] Similarly, NAB argues that New Charter's increased market power and greater bargaining leverage would lead to reductions in retransmission consent fees.[965] NAB argues that broadcasters rely on retransmission consent fees to retain rights to programming, a reduction in these fees would result in less over-the-air programming, including local news and public affairs programming and, therefore, would be contrary to the public interest.[966]

277. The Applicants maintain the proposed transaction would not have an adverse impact on video programmers, including broadcasters and diverse, independent programmers.[967] The Applicants assert that because they do not compete with each other for video subscribers, content owners would have the same distribution options in any given area within New Charter's footprint that exist today with Charter, Time Warner Cable, and Bright House.[968] The Applicants argue that New Charter would lack the incentive and ability to harm programmers despite any increased scale.[969] The Applicants contend that any reduction in programming fees would not be of a magnitude expected to affect the quantity, quality, or variety of programming that content providers would be able to offer.[970] The Applicants assert that the programming cost savings in Charter's legacy footprint would amount to a small percentage of cable and broadcast networks' U.S. programming revenues.[971] Moreover, they state that "programmers primarily rely on advertising revenues and affiliate fees to support their operations." New Charter's expanded

[963] Entravision Petition at 11-12; Public Knowledge et al. Petition at 16; beIN SPORTS and Sports Fans Coalition Feb. 15, 2016, *Ex Parte* Letter at 1; beIN SPORTS and Sports Fans Coalition Mar. 17, 2016, *Ex Parte* Letter at 1. INCOMPAS makes a similar argument regarding competition in the broadband market. INCOMPAS asserts that New Charter's increased bargaining power would enable it to negotiate lower programming payments than the fees paid to programmers by smaller MVPDs. COMPTEL Petition at 11-12. INCOMPAS contends that the higher costs of video programming paid by other MVPDs would hinder those MVPDs' ability to invest in broadband deployment. COMPTEL Petition at 8-12; INCOMPAS Reply at 8; *see also* INCOMPAS Jan. 15, 2016, *Ex Parte* Letter at 1-5; INCOMPAS Jan. 27, 2016, *Ex Parte* Letter at 3. For a more detailed discussion of INCOMPAS's argument, *see infra* Sections V.G.6 & VI.B.

[964] Entravision Petition at 11-12; Entravision Reply at 6; Public Knowledge et al. Petition at 16; Public Knowledge Reply at 7; *see also* WGAW Petition at n.125 (noting that one consequence of cable consolidation is lower compensation to content producers, which would "reduce the positive impact of the entertainment industry to the economy"). Entravision argues that lower prices would lead to reduced investment in the quantity and quality of video programming in the Latino market. Entravision Petition at 9-12. For a more detailed analysis of Entravision's argument, *see infra* Section V.G.5.b(ii).

[965] NAB Petition at 14, 17-18, n.62; NAB Reply at 2-7.

[966] NAB Petition at 18, n.62; NAB Reply at 3-4.

[967] Application at 56-58; Opposition at 61.

[968] Application at 56-58.

[969] Application; Opposition at 61-64.

[970] Opposition at 61-64; Katz Reply Decl. at para. 86.

[971] Opposition at 62-63; Katz Reply Decl. at paras. 87-88.

footprint would allow for wider distribution of programming and could, therefore, enhance its advertising value.[972] The Applicants also claim that larger MVPDs have been found to carry more, not fewer, programming networks.[973] Although New Charter would be able to bargain for lower programming payments, which the Applicants assert is a public benefit, the Applicants argue this ability does not demonstrate the proposed transaction would not result in a reduction of the quantity or quality of programming.[974] Accordingly, the Applicants conclude the proposed transaction would not result in any harms to video programmers or to the public interest.[975]

278. *Discussion.* Given the Commission's interest in promoting the supply and quality of programming, we consider carefully the allegations of harm in the video programming market, including those related to New Charter's increased bargaining leverage in contract negotiations. To support their allegations of harm in the video programming market, programmers offer only generalized assertions of harm to themselves without sufficiently demonstrating how New Charter's ability to negotiate lower programming fees would harm consumer welfare by decreasing the output or quality of programming. Commenters have not provided adequate empirical evidence to show that the potential reduction in New Charter's programming rates would curtail investment in content production or licensing. We note further that the Applicants' estimate of the annual programming cost savings for the legacy Charter systems, roughly **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, is an extremely small percentage of U.S. cable and broadcast networks annual operating revenues.[976]

279. We are particularly attentive to whether the proposed transaction would decrease consumer welfare by reducing programming output or quality. We find, however, that the record does not support the conclusion that a reduction in New Charter's programming costs would have the effect of lowering the quantity or quality of programming or decreasing consumer welfare. Consequently, we decline to impose conditions addressing the potential for a reduction in fees paid to programmers.

(ii) Latino Video Programming Market

280. *Positions of the Parties.* Entravision expresses concern that the proposed transaction would result in the loss of two significant buyers of video programming.[977] Entravision argues New Charter would have an unacceptable level of bargaining power in DMAs with significant Latino populations and that this increased bargaining power would have a disproportionate impact on the Latino community as well as the diversity and quality of programming and information that the Latino community receives.[978]

281. In support of its position, Entravision submitted an economic analysis prepared by Dr. John Kwoka. Dr. Kwoka argues that Latino-focused programming is a distinct market segment[979] and the

[972] Opposition at 62-63; Katz Reply Decl. at para. 89.

[973] Katz Reply Decl. at para. 104 (citing economic literature).

[974] Opposition at 63-64; Katz Reply Decl. at paras. 74-105.

[975] Application at 56-58; Opposition at 61-64.

[976] Opposition at 62-63; Katz Reply Decl. at para. 88.

[977] Entravision Petition at 2. We also note that Time Warner Cable negotiates on behalf of Bright House for almost all of Bright House's video programming and, thus, the majority of Bright House's market share is already attributable to Time Warner Cable. Application at 12. Because Bright House is not a fully independent purchaser of programming, New Charter's increased share of the marketplace and bargaining leverage would not be as great post-transaction as commenters argue.

[978] Entravision Petition at i, 2-3, 9-12; Entravision Reply at 6-7; *see also* Kwoka Analysis (economic analysis discussing the impact of the proposed transaction on the Latino-oriented programming market).

[979] Kwoka Analysis at paras. 9-19; *see also* Entravision Petition at 3-5.

proposed transaction would harm this market segment due to its unique characteristics, including bilingual and Spanish-language programming and a distinct culture of arts, music, and history.[980] Dr. Kwoka claims that viewers of Latino-focused programming are heavily concentrated in a small number of DMAs[981] and asserts that the Latino-focused programming industry that targets this population is "quite fragmented."[982] In his analysis, Dr. Kwoka asserts that post-transaction New Charter's increased size would increase its bargaining power and reduce compensation for programmers, which would negatively impact "the quality, viability, and competitiveness" of Latino-focused programming.[983] Further, he argues that these programmers rely—to a greater degree than other programmers—upon coverage in these heavily Latino market segments to reach their audience, which tilts the marketplace against Latino-focused programmers in negotiations with MVPDs operating in these DMAs.[984] Dr. Kwoka concludes that with less bargaining power, Latino-focused programmers would be left with less capital to invest in programming, which would lead to a reduction in the "quality, novelty, and other improvements that would otherwise have occurred" absent the proposed transaction.[985]

282. In response, the Applicants rely on the economic analysis of economist Dr. Katz. Dr. Katz argues that Dr. Kwoka appears to be comparing MVPD market shares with a count of Latino programmers without reference to shares.[986] Dr. Katz's analysis compares the number of cable operators to the number of Spanish-language broadcast and cable networks—660 cable operators with a total of 5,208 cable systems and 47 Spanish broadcast and cable networks owned by 26 companies.[987] Dr. Katz criticizes Dr. Kwoka's characterization of the Latino-focused programming market as "quite fragmented."[988] To the contrary, Dr. Katz identifies several examples of Spanish-language broadcasters that are affiliated with major U.S. companies and points out that Univision owns two national broadcast networks, the largest of which reaches 94.1 million U.S. households.[989] Dr. Katz further states that comparing the two industries—cable operators and programmers—based on market shares is more useful than comparing the number of firms when assessing market concentration.[990] Dr. Katz further contends that New Charter's share of the marketplace would be lower in the DMAs Dr. Kwoka deemed to be

[980] Kwoka Analysis at paras. 9-19; Entravision Petition at 3-5.

[981] Kwoka Analysis at paras. 26, 28-30. Dr. Kwoka analyzes 20 DMAs that account for two-thirds of the Latino population and approximately 38 percent of total population. *See* Entravision Petition at 10; Kwoka Analysis at para. 28. We note that 20 DMAs is a small portion of the 210 total DMAs in the United States. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3274, para. 44 n.122 (stating the United States is divided into 210 DMA markets).

[982] Kwoka Analysis at para. 20.

[983] *Id.* at paras. 8, 35-46; Entravision Petition at 9-12. For his analysis, Dr. Kwoka relies on economic literature, Commission reports, market analysts' assessments, industry participants' documents, and SNL Kagan data. Kwoka Analysis at paras. 35-45.

[984] Kwoka Analysis at paras. 31-33; Entravision Petition at 10-11; Entravision Reply at 7.

[985] Kwoka Analysis at para. 45; Entravision Petition at 11-12.

[986] Katz Reply Decl. at para. 95.

[987] *Id.*

[988] *Id.* at para. 96.

[989] *Id.*

[990] *Id.* at para. 76, 78-79, 81-83, 97-98, 100; Opposition at 61, 63. Dr. Katz calculates the Herfindahl-Hirschman Index (HHI) for the Spanish-language programming market segment, using shares of advertising revenue and shares of viewership ratings. Katz Reply Decl. at para. 97. Market concentration is often measured by the HHI. *See generally 2010 DOJ/FTC Horizontal Merger Guidelines* § 5.3 at 18-19.

critical for Latinos than New Charter's share of the marketplace would be nationally.[991] Therefore, Dr. Katz concludes that the alleged impact on Latino-focused programmers would be less significant than the alleged impact on programmers in general.[992]

283. Furthermore, Dr. Katz criticizes Dr. Kwoka's broader assertion that lower prices for programming would lead to "consequent compromises in its quality, novelty, and other improvements that would otherwise have occurred," because Dr. Kwoka did not attempt to quantify the alleged harms.[993] He also asserts that Dr. Kwoka ignores evidence indicating that the programming market is healthy.[994] Dr. Katz further states Spanish-language programmers' investment in programming has increased significantly and continues to grow.[995] He criticizes Dr. Kwoka for failing to show how the proposed transaction would materially harm this trend in investment.[996]

284. In reply, Entravision submitted an additional economic analysis by Dr. Kwoka. Therein, Dr. Kwoka disputes Dr. Katz's characterization of the MVPD industry as highly fragmented and the Latino programming segment as concentrated.[997] Dr. Kwoka asserts that an MVPD is typically the sole cable operator in a particular franchise area and that more than 73 percent of all household subscribers are served by only four providers.[998] He acknowledges that cable overbuild and telco-based distribution systems also compete in the video distribution industry but the number of competitors serving a particular area is rather small and far less than the number of cable operators Dr. Katz used in his analysis.[999] Dr. Kwoka dismisses online video as a competitive, alternative buyer of programming, noting that MVPDs continue to have market power in areas serving significant Latino populations.[1000] Dr. Kwoka states that factoring in the demand of theoretical future buyers of programming, like OVDs, distorts the analysis of the bargaining power of incumbent MVPDs.[1001]

285. *Discussion.* Based on our review of the record, we find that the transaction is not likely to result in an increase in New Charter's market share in the DMAs with large Latino populations to a degree that has the potential to increase New Charter's bargaining power and negatively affect Latino-focused programmers. We agree with the Applicants, finding New Charter's changed share in the Latino marketplace to be too small to raise transaction-specific concerns. The Applicants claim that they would not have the ability and incentive to harm independent Spanish-language programmers because the transaction results in at most an estimated **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent increase in penetration into Hispanic markets.[1002] We disagree with Entravision's

[991] Katz Reply Decl. at paras. 77, 99.

[992] *Id.* at para. 99. As noted above, following the proposed transaction, New Charter would negotiate on behalf of approximately 17 percent of MVPD subscribers nationwide. Application at 54-55; *see also supra* para. 217.

[993] Katz Reply Decl. at para. 100.

[994] *Id.* at paras. 75-85, 100-02.

[995] *Id.* at para. 103.

[996] *Id.*

[997] Kwoka Reply at paras. 16-17.

[998] *Id.* at paras. 16-18. The four providers are Comcast, DIRECTV, DISH, and Time Warner Cable. *See id.* at para. 18.

[999] *Id.* at paras. 17-18.

[1000] *Id.* at paras. 13-14.

[1001] *Id.* at para. 14.

[1002] Opposition at 63.

claim that two significant purchasers of programming would be lost.[1003] Currently, Time Warner Cable negotiates on behalf of Bright House for almost all of Bright House's video programming.[1004] Bright House is not a fully independent purchaser of programming and the majority of its market share is already attributable to Time Warner Cable.

286. Looking at New Charter's share of the marketplace in the top 20 DMAs with Latino households, we find the increase of New Charter's share across all 20 DMAs would be 1.3 percent.[1005] We conclude that this 1.3 percent change is unlikely to increase New Charter's incentive and ability to decrease the prices its pays for Latino-focused programming in these 20 DMAs.

287. Dr. Kwoka claims that New Charter would be the largest MVPD in the 20 DMAs with the largest population of Latino households.[1006] However, as Dr. Katz points out, because there is little geographic overlap between the Applicants, New Charter's share of the marketplace in these 20 DMAs would not differ much from the largest share of each of the individual companies in these DMAs.[1007] We find little overlap between the existing footprints of the Applicants in any of these DMAs and we note that in many of these DMAs, Time Warner Cable or Bright House is already the largest MVPD.[1008] In these 20 DMAs, only seven DMAs would have an increase in share as a result of the transaction, and, except for the Los Angeles DMA, these increases are less than 5 percent.[1009]

288. Dr. Kwoka argues that the proposed transaction would harm Latino-focused programmers because New Charter's increased size would give New Charter increased bargaining power,

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[1003] Entravision Petition at 2.

[1004] Application at 12. Bright House explains that Time Warner Cable directly negotiates with non-broadcast programmers on its behalf and includes Bright House in these agreements. Advance/Newhouse Response to Information Request at 27-28. Bright House states that it makes some independent programming decisions, including **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. *Id.*; *see also* Kwoka Reply n.16 (arguing that there is some ambiguity in Bright House's programming arrangement with Time Warner Cable and that if Bright House is not fully independent in making programming decisions, there are still competitive concerns with the loss of Bright House in this transaction).

[1005] Kwoka Analysis at Table 3 (presenting Post-Merger MVPD Share of Top 20 DMAs by Latino Households). Because we attribute Bright House's programming to Time Warner Cable, this results in a 1.3 percent change and does not take into account Bright House's 4.3 percent share of the marketplace in the top 20 Latino DMAs. *See id.* Additionally, we note that this 1.3 percent change differs from the Applicants' calculation that New Charter would have **[BEGIN HIGHLY CONF. INFO.]**
[END HIGHLY CONF. INFO.]. Opposition at 63. The Applicants' calculation is based on an estimation of New Charter's total penetration in Hispanic DMAs, while Kwoka's analysis is based on MVPD share of the top 20 DMAs by Latino households. *See* Opposition at 63; Kwoka Analysis Table 3.

[1006] Entravision Petition at 9-12; Entravision Reply at 7; Kwoka Analysis at paras. 29-30, 39; *see also* Kwoka Analysis Table 2.

[1007] Katz Reply Decl. at para. 99 (acknowledging that there is little geographic overlap between the Applicants in the 20 DMAs Dr. Kwoka discusses); *see also* Kwoka Analysis at para. 29 (asserting that Time Warner Cable is the dominant MVPD in the San Antonio, McAllen, and El Paso, Texas, DMAs and that Bright House is the dominant MVPD in the Orlando and Tampa, Florida, DMAs); SNL Kagan, *Q2 2015 All Video by DMA*, October 2015 (evidencing that Time Warner Cable and Bright House are the largest MVPDs in five of the top 20 Latino DMAs and do not overtake any competing MVPDs in these DMAs as a result of the transaction).

[1008] Kwoka Analysis at para. 29; SNL Kagan, *Q2 2015 All Video by DMA*, October 2015.

[1009] Taking into account Bright House as a separate entity, New Charter would have an increased share in the following DMAs: Los Angeles (5.8 percent), New York (0.3 percent), Houston (0.1 percent), Dallas (4.8 percent), San Francisco (0.4 percent), Fresno (0.2 percent), and Denver (0.2 percent). *See* Kwoka Analysis Tbl. 3.

resulting in lower fees paid to programmers.[1010] Dr. Kwoka states that only the largest Latino-focused networks command license fees and that smaller, niche programmers receive little to no license fees.[1011] For these smaller Latino-focused programmers, Dr. Kwoka asserts that program carriage is more important than license fees, as many of these programmers receive most of their revenue from other sources.[1012] Based upon our review of Dr. Kwoka's analysis we do not believe the evidence indicates that the proposed transaction would make it less likely for these programmers to get carried or receive advertising revenue or be more likely to be assigned a disadvantageous channel slot. Furthermore, we note that New Charter would not own a substantial number of Spanish-language or Latino-focused networks and thus we find that the transaction would not create an incentive for New Charter to foreclose Latino-focused programming.[1013] Accordingly, we decline to adopt any conditions related to Latino programming.[1014]

c. PEG Channels

289. *Background*. The Act[1015] subjects cable operators to special carriage requirements for PEG channels[1016] in order to promote localism and diversity.[1017] A cable operator is required to allocate channel capacity to PEG channels in its local market if the local franchising authority (LFA) requests such carriage pursuant to its franchising agreement.[1018]

290. *Positions of the Parties.* Several commenters contend that the proposed transaction would harm PEG channel programming.[1019] They argue that Charter has a history of substandard PEG

[1010] Kwoka Analysis at paras. 8, 39, 42.

[1011] *Id.* at paras. 32-33; Kwoka Reply at paras. 15, 21, 23.

[1012] Kwoka Analysis at paras. 32-33; Kwoka Reply at para. 23.

[1013] Opposition at 64. Time Warner Cable owns or has interest in some local Spanish-language channels, including Time Warner Cable Deportes, Time Warner Cable Noticias NY1, Canal de Tajas, and Time Warner Cable Noticias Tiempo. Time Warner Cable Response to Information Request at 30-32, 34, 37, 148. Bright House owns InfoMás, a Spanish-language news station in central Florida. Advance/Newhouse Response to Information Request at 14, 17, 23. As noted above we find there are no likely transaction-specific harms caused by New Charter's control of these channels. *See supra* Section V.E.

[1014] *See supra* Section V.G.5.a (declining to impose any program carriage conditions).

[1015] *See* 47 U.S.C. § 531.

[1016] Federal Communications Commission, *Public, Educational, and Governmental Access Channels* (updated Dec. 9 2015), http://www.fcc.gov/guides/public-educational-and-governmental-access-channels-peg-channels (FCC PEG Guide). *Public* access channels are used by the general public and usually are administered by the cable operator or an entity designated by the franchising authority. *Educational* access channels are used by educational institutions. *Governmental* access channels are used, and usually controlled by, local governments. *See id.*

[1017] *See, e.g.*, 47 U.S.C. §§ 531, 543(b)(7); H.R. Rep. No. 102-628, at 183 (1992) ("Making over-the-air broadcast and PEG access channels available on a separate tier promotes the time-honored principle of localism.").

[1018] 47 U.S.C. § 531.

[1019] Public Knowledge et al. Petition at 19; ACM-ACD Petition at 2-17; ACM-ACD Reply at 2-5; American Community Television and Southeast Association of Telecommunications Officers Advisors Comments at 2-3 (ACT-SEATOA Comments); Letter from Mauro DePasquale, WCCA TV, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Nov. 6, 2015) (WCCA TV Nov. 6, 2015, *Ex Parte* Letter); Letter from David Shawver, Board Chair, Public Cable Television Authority, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 6, 2015) (PCTA Nov. 6, 2015, *Ex Parte* Letter); Maui TV Reply at 1; Wisconsin Community Media Reply at 2, 20 (WCM Reply); Letter from Frank Robinson, Town Manager, Town of Apply Valley, CA, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Dec. 10, 2015) (Apple Valley Dec. 10, 2015, *Ex Parte* Letter).

performance and that it would violate the public interest if New Charter continued these practices in its expanded footprint.[1020] These commenters cite examples of Charter failing to comply with PEG commitments, treating PEG access poorly, and aggressively seeking to undercut its other public service obligations.[1021] They assert that Charter has engaged in channel relocation without community consent or notification (i.e., moving PEG channels from lower-numbered channels to lesser-viewed, higher-numbered channels);[1022] limited PEG channels' presence on the Spectrum Guide, Charter's electronic programming guide;[1023] discontinued free connections and cable services for public buildings and schools;[1024] refused to provide upstream connections from the PEG center to Charter's headend;[1025] refused to pay PEG fees as mandated by law;[1026] and imposed other conditions on local communities to operate PEG channels.[1027] Several commenters argue that Charter has acted in a negligent and hostile manner toward PEG access television and the communities in which it provides cable services, especially in states where cable franchising is regulated at the state level, leaving PEG programmers with little recourse against cable companies.[1028] Commenters maintain that Charter's failure to fulfill the diversity

[1020] ACM-ACD Petition at 3; ACM-ACD Reply at 2, 5-6; ACT-SEATOA Comments at 2; WCM Reply at 2, 20; Public Knowledge et al. Petition at 19.

[1021] ACM-ACD Petition at 3, 14-17; ACM-ACD Reply at 4-5; ACT-SEATOA Comments at 2, 6-11; WCM Reply at 4-6; Public Knowledge et al. Petition at 19; *see also* Apple Valley Dec. 10, 2015, *Ex Parte* Letter at 1-2; MFRConsulting Reply at 30.

[1022] ACM-ACD Petition at 14-16, 19; ACM-ACD Reply at 4; WCM Reply at 3, 5-6, 13-14; Letter from Christy Marie Lopez, President, SCAN NATOA, to FCC, MB Docket No. 15-149, at 2 (filed Nov. 20, 2105) (SCAN NATOA Nov. 20, 2105, *Ex Parte* Letter); ACT-SEATOA Comments at 4-9, 12; Maui TV Reply at 2-3, Exh. A; Letter from Chip Bergquist, Executive Director, Waycross Community Media, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Nov. 12, 2015) (Waycross Nov. 12, 2015, *Ex Parte* Letter); *see also* Letter from Tony Vigue, Manager, Community Television, City of South Portland, et al., to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Nov. 10, 2015) (South Portland Nov. 10, 2015, *Ex Parte* Letter).

[1023] ACT-SEATOA Comments at 4; ACM-ACD Petition at 15-16, 20-22; ACM-ACD Reply at 4-5, 7 (alleging that Charter charges PEG programmers fees and imposes other requirements to be included in Charter's electronic programming guide); WCM Reply at 3, 6, 15-16; Waycross Nov. 12, 2015, *Ex Parte* Letter at 1.

[1024] ACM-ACD Petition at 16; ACT-SEATOA Comments at 10-12; WCM Reply at 3, 5; Maui TV Reply at 1.

[1025] ACM-ACD Petition at 16-17; ACM-ACD Reply at 5; ACT-SEATOA Comments at 4-6, 12; PCTA Nov. 6, 2015, *Ex Parte* Letter at 2; Apple Valley Dec. 10, 2015, *Ex Parte* Letter at 2; Letter from Nancy Amadeo, Chair, Access Monterey Peninsula, Inc., to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 12, 2015) (AMP Nov. 12, 2015, *Ex Parte* Letter) (alleging Charter ignored requirements to interconnect with Comcast to receive PEG programming); WCM Reply at 4 (requesting specific conditions concerning the costs of interconnection and transmission of PEG programming under Wisconsin law); *see also* South Portland Nov. 10, 2015, *Ex Parte* Letter at 1 (alleging that Time Warner Cable is planning to charge municipalities for an encoder and routing PEG signals over the internet to the headend); LAPA Comments at 1-2 (noting that some programmers are charged to deliver programming to a cable operator's headend).

[1026] ACM-ACD Petition at 17; AMP Nov. 12, 2015, *Ex Parte* Letter at 1-2 (alleging Charter refuses to pay franchise fees in California); Maui TV Reply at 1-3 (alleging Charter refuses to pay franchise fees in some jurisdictions and arguing that cable companies should not be allowed to circumvent franchise fees by delivering video through broadband); PCTA Nov. 6, 2015, *Ex Parte* Letter at 1-2 (alleging Charter and Time Warner Cable have disregarded state PEG obligations); ACT-SEATOA Comments at 4-6 (noting the loss of PEG funding due to statewide franchising laws).

[1027] *See, e.g.*, ACT-SEATOA Comments at 4, 7 (stating that Charter has required local government in Missouri to sign a "pseudo franchise agreement" not required by law); *see also* WCM Reply at 5, 10-12 (alleging access channel reception problems are more severe with Charter than with other cable operators).

[1028] WCM Reply at 2, 4-5, 16-20 (asserting that Wisconsin's state franchise law did not enact significant state oversight); Apple Valley Dec. 10, 2015, *Ex Parte* Letter at 1-2 (alleging Charter's practices in California hinder the

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and localism objectives of PEG programming in the Cable Act is transaction-related because the transaction would extend Charter's PEG policies and practices to Time Warner Cable and Bright House's footprints, thus harming the public interest.[1029] Other commenters raised concerns with Time Warner Cable's purportedly hostile treatment of its PEG commitments.[1030]

291. Some commenters seek commitments by New Charter that they argue would protect PEG channels and enhance their presence on the cable system.[1031] They argue that none of the Applicants' claimed public interest benefits relate to PEG access or localism. Thus, these claimed benefits would not outweigh the harms to PEG and localism that would result from the proposed transaction.[1032]

292. Conversely, others support the proposed transaction and assert that Charter has been a cooperative partner in providing PEG programming.[1033] These commenters believe New Charter would continue supporting public television and providing programming that meets the needs of smaller and

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carriage of PEG channels); AMP Nov. 12, 2015, *Ex Parte* Letter at 1-2 (arguing that California's statewide franchise law makes it difficult to enforce PEG provisions); *see also* Waycross Nov. 12, 2015, *Ex Parte* Letter at 1 (expressing the difficulties of negotiating a community franchise with Time Warner Cable after Ohio adopted statewide franchising); PCTA Nov. 6, 2015, *Ex Parte* Letter at 1-2 (alleging that with California's state franchises Charter and Time Warner Cable have disregarded state PEG obligations); Letter from Ernest D. Davis, Mayor, City of Mount Vernon, New York, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1-2 (filed Sept. 16, 2015) (Mount Vernon Sept. 16, 2015, *Ex Parte* Letter) (arguing Time Warner Cable let its franchise agreement with the city expire and has not negotiated in good faith).

[1029] ACM-ACD Petition at 3-4; ACM-ACD Reply at 5-6; WCM Reply at 2, 20; ACT-SEATOA Comments at 4.

[1030] PCTA Nov. 6, 2015, *Ex Parte* Letter at 1-2; Mount Vernon Sept. 16, 2015, *Ex Parte* Letter at 1-2; South Portland Nov. 10, 2015, *Ex Parte* Letter at 1-2.

[1031] Commenters propose several conditions to address PEG-related issues raised in the record including those related to: (1) parity between PEG and broadcast channels (*see* ACM-ACD Petition at 17-20, 24; ACM-ACD Reply at 7; WCM Reply at 3; Maui TV Reply at 2-3; WCCA TV Nov. 6, 2015, *Ex Parte* Letter at 1; Waycross Nov. 12, 2015, *Ex Parte* Letter at 1); (2) HD carriage (*see* SCAN NATOA Nov. 20, 2105, *Ex Parte* Letter at 1-3; ACM-ACD Petition at 22-24; ACM-ACD Reply at 7; WCM Reply at 3; Maui TV Reply at 2-4; WCCA TV Nov. 6, 2015, *Ex Parte* Letter at 1); (3) inclusion on electronic programming guides (*see* ACM-ACD Petition at 20-22, 24; ACM-ACD Reply at 7; WCM Reply at 3; Waycross Nov. 12, 2015, *Ex Parte* Letter at 1); (4) channel positioning (*see* ACM-ACD Petition at 19, 24; ACM-ACD Reply at 7; WCM Reply at 3; SCAN NATOA Nov. 20, 2105, *Ex Parte* Letter at 2-3; ACT-SEATOA Comments at 12; Maui TV Reply at 2-3; Waycross Nov. 12, 2015, *Ex Parte* Letter at 1; WCCA TV Nov. 6, 2015, *Ex Parte* Letter at 1); (5) carriage on the cable system's basic tier (*see* Waycross Nov. 12, 2015, *Ex Parte* Letter at 1; ACM-ACD Petition at 17-18, 24; ACM-ACD Reply at 7; WCM Reply at 3; Maui TV Reply at 2); (6) franchise negotiations and the ability to fulfill PEG obligations under existing franchise agreements and regulations (*see* AMP Nov. 12, 2015, *Ex Parte* Letter at 1-2; Letter from John E. Shay, City Manager, City of Ludington, MI, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Oct. 27, 2105) (Ludington Oct. 27, 2105, *Ex Parte* Letter); Mount Vernon Sept. 16, 2015, *Ex Parte* Letter at 1-2; ACT-SEATOA Comments at 12-13; WCM Reply at 3-4; Apple Valley Dec. 10, 2015, *Ex Parte* Letter at 1-2; Public Media Network Comments at 1); (7) the imposition of PEG transmission fees and requirements (*see* ACT-SEATOA Comments at 12; PCTA Nov. 6, 2015, *Ex Parte* Letter at 2; WCM Reply at 4); and (8) various technical and support concerns (*see, e.g.*, Maui TV Reply at 2-4; ACT-SEATOA Comments at 12; WCM Reply at 3).

[1032] *See, e.g.*, ACM-ACD Petition at 2.

[1033] Public Media Network Comments at 1-2; PBS Hawaii Comments at 1; Loudon County Community Cable TV3 Comments at 1; Kingsport Oct. 20, 2015, *Ex Parte* Letter at 1; Letter from Steven Pappas, President, CVTV Board of Directors, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Oct. 28, 2105) (CVTV Oct. 28, 2105, *Ex Parte* Letter); Letter from Diane Lyon, Vice Chair, Mid Michigan Area Cable Consortium, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Dec. 3, 2105) (MMACC Dec. 3, 2105, *Ex Parte* Letter).

rural communities.[1034] However, these commenters ask the Commission to ensure that New Charter would adhere to and fulfill all PEG-related franchise obligations across its expanded footprint.[1035]

293. In response, the Applicants refute allegations by commenters that they have failed to fulfill certain PEG commitments and assert that they have met all PEG-related commitments contained in their franchise agreements.[1036] The Applicants contend that these commenters have mischaracterized the PEG requirements and the Applicants' actions in those matters. Additionally, the Applicants renounce these claims as unrelated to the proposed transaction.[1037] The Applicants also assert that they comply with the Cable Act during franchise renewal negotiations with respect to the designation of PEG channel capacity, equipment funding, and other community support.[1038]

294. The Applicants maintain that they have a positive record of supporting local programming efforts, citing comments PEG programmers filed in support of the proposed transaction.[1039] Further, the Applicants state that they have strong relationships with the vast majority of their PEG providers and a history of working collaboratively with PEG organizations to meet their franchise commitments.[1040] Accordingly, the Applicants conclude that the proposed transaction presents no reason to impose new PEG requirements solely on New Charter.[1041]

295. *Discussion.* We have acknowledged many times that PEG channels serve important public interest objectives by providing a platform for causes and organizations that might otherwise not receive carriage on cable systems. Among other benefits, PEG channels educate the electorate by providing opportunities for candidates seeking local public office to address the public.[1042] The availability of this information informs community members' voting and other civic decisions and improves the quality of their lives and those of their families.[1043] We must ensure that these objectives are preserved. However, based on the record before us, we find that the proposed transaction will not have a substantial adverse effect on the public interest by undermining PEG access, localism, or diversity. We find it unnecessary to impose PEG programming-related conditions in the proposed transaction.

296. The Commission generally does not insert itself in the PEG negotiation process between LFAs and cable operators.[1044] Federal law does not mandate PEG channel carriage; instead, LFAs may

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[1034] Public Media Network Comments at 1-2; PBS Hawaii Comments at 1.

[1035] Public Media Network Comments at 1; PBS Hawaii Comments at 1; CVTV Oct. 28, 2105, *Ex Parte* Letter at 1; Letter from Tim Bala, Mayor, City of Wayland, MI, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149, at 1 (filed Oct. 22, 2105); Ludington Oct. 27, 2105, *Ex Parte* Letter at 1; MMACC Dec. 3, 2105, *Ex Parte* Letter at 1.

[1036] Opposition at 85, 87

[1037] *Id.* at 87.

[1038] *Id.* at 85.

[1039] *Id.* at 85-86.

[1040] *Id.*

[1041] *Id.* at 85.

[1042] Public Knowledge et al. Petition at 19; ACM-ACD Petition at 6-10; *see also* H.R. REP. NO. 102-628, at 85.

[1043] *See Comcast-NBCU Order*, 26 FCC Rcd at 4326, para. 213.

[1044] *See, e.g., Implementation of Section 621(a)(1) of the Cable Commc'ns Policy Act of 1984*, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 5101, 5154, para. 120 (2007), *aff'd sub nom*. *Alliance for Cmty. Media v. FCC*, 523 F.3d 763 (6th Cir. 2008). LFAs or cable operators may adopt on their own, non-content-based rules governing the use of PEG channels, such as rules for allocating time among competing applicants, minimum production standards, or user training requirements. *See, e.g.*, FCC PEG Guide. As noted by commenters, many states have adopted statewide franchising laws. *See Sixteenth Video Competition Report*, 30

(continued….)

exercise authority over franchisees regarding PEG channels.[1045] Pursuant to Sections 611 and 621 of the Act, LFAs may require cable operators to provide both channel capacity and certain types of financial support to PEG channels.[1046] Specifically, an LFA "may in its request for proposals require as part of a franchise, and may require as part of a cable operator's proposal for a franchise renewal . . . that channel capacity be designated for public, educational, or governmental use."[1047]

297. To the extent that the harm alleged by the commenters results from a dissatisfaction with state and local franchising regulations on PEG organizations, we do not find a transaction-specific harm. Because the Commission generally does not insert itself in the PEG negotiation process between franchising authorities and cable operators and the record does not indicate that the transaction is likely to result in a change in PEG-related practices by New Charter, we conclude that the record does not support the imposition of PEG-related conditions. These commenters have alternate means of recourse for PEG-related complaints through local negotiations and enforcement of franchise agreements. We note that this transaction is distinguishable from previous transactions in which the Commission imposed PEG-related conditions when capacity of the cable system appeared to be constrained and PEG channels may have been removed in favor of other programming.[1048]

6. Competitors' Higher Prices for Programming

298. *Positions of the Parties.* Commenters argue that New Charter would realize significant programming cost savings, which programmers would seek to recoup by forcing smaller MVPDs to pay higher programming prices.[1049] In turn, the increased cost of programming would undermine the ability of these small MVPDs to compete with incumbent cable operators. Additionally, ACA argues that programmers affiliated with New Charter, such as Discovery and Starz, would have an increased incentive to charge higher fees or impose more onerous terms and conditions on unaffiliated MVPDs.[1050]

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FCC Rcd at 3270, para. 36 & n.90. These laws place franchising authority with the state instead of with local governments. *See id.* at 3270, para. 36.

[1045] *See generally* 47 U.S.C. § 531. *See also* FCC PEG Guide. Some state video franchising laws have removed or reduced the PEG requirements typically found in local franchising agreements. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3279, para. 56.

[1046] 47 U.S.C. §§ 531(a)-(b), 541(a)(4)(B). Sections 611 and 621 were added to the Communications Act by the Cable Communications Policy Act of 1984, Pub. L. 98-549.

[1047] *See* 47 U.S.C. § 531(b). *See also Sixteenth Video Competition Report*, 30 FCC Rcd at 3279, para. 56.

[1048] For example, in the *Comcast-NBCU* transaction, the conditions were motivated in part by a concern that Comcast's increased inventory of programming content and broadcast outlets would pose a threat to independent programming and content, especially PEG programming, because Comcast-NBCU would have the incentive to use its available channels, including those occupied by PEG channels, for its affiliated programming. *See Comcast-NBCU Order*, 26 FCC Rcd at 4324, para. 208. *See also* ACM-ACD Petition at 12-13; ACM-ACD Reply at 2 (arguing the proposed transaction increases the incentives of New Charter and other cable operators to engage in practices that would reduce PEG access financial support and could potentially free up system capacity for a cable operator's preferred uses (i.e., affiliated programming, unaffiliated programming from which the operator derives advertising revenue, or additional broadband capacity). We do not find that a similar competitive harm would likely result from the proposed transaction. *See supra* Section V.G.5.a.

[1049] Public Knowledge et al. Petition at 14-16; DISH Petition at 65; Cincinnati Bell Comments at 13, 21; Hawaiian Telcom Comments at 20; Cincinnati Bell Reply at 4-6; ITTA Reply at 7-8; NTCA Reply at 4; *see also* Stop Mega Cable Coalition Feb. 9, 2016, *Ex Parte* Letter at 2-3.

[1050] ACA Comments at 2, 10-12.

299. In response, the Applicants assert that there is no evidence volume discounts for certain distributors have resulted in higher prices for others.[1051] The Applicants further argue that programmers already bargain for the highest fees they can obtain from small distributors and that the addition of Charter's 4.2 million video subscribers to Time Warner Cable's much larger subscriber base is unlikely to have any material effect on a programmer's bottom line.[1052] Finally, the Applicants argue that to the extent there are general concerns about volume discounts in negotiations for video programming, such concerns are industry-wide and beyond the scope of this proceeding.[1053]

300. *Discussion.* We conclude that the transaction is not likely to harm MVPD competition as a result of any volume discounts for programming that New Charter may negotiate for post-transaction.[1054] In particular, we do not find that programming payment reductions by New Charter would result in increased programming payments by other MVPDs. The record does not show that this behavior has occurred when other MVPDs, including the Applicants, have received volume discounts in the past or that such behavior would be likely to occur post-transaction.[1055] As the Applicants note, if programmers could obtain higher payments from smaller MVPDs, they already would be doing so today to maximize profits.

7. Local Broadband Competition

301. In this section, we analyze the effect of the Applicants' estimated programming cost savings on local BIAS competition, specifically whether the Applicants could use video cost savings to also lower their BIAS pricing and thereby impede investment and deployment by smaller, competitive BIAS providers.[1056] We agree with the Applicants that any savings generated by their lower video programming costs, particularly when such cost savings are passed on to subscribers, help consumers and should not hinder competitive BIAS providers to the point that they reduce BIAS investment and deployment in response to New Charter's lower prices.[1057]

[1051] Opposition at 60; Katz Reply Decl. at paras. 106-09.

[1052] Opposition at 59-60; Katz Reply Decl. at paras. 86-93, 107-08. The Applicants also note that new entrants seeking access to programming include such well-financed companies as Google and Apple. *Id.* at 60.

[1053] Opposition at 61.

[1054] We note that the Commission's program access rules contemplate that a complaint may be filed challenging volume-based pricing in certain circumstances. On the filing of such a complaint, a cable-affiliated programmer may be required "to demonstrate that such volume discounts are reasonably related to direct and legitimate economic benefits reasonably attributable to the number of subscribers . . . but may also identify non-cost economic benefits related to increased viewership." 47 CFR § 76.1002(b)(3) note.

[1055] *See also AT&T-DIRECTV Order*, 30 FCC Rcd at 9203, para. 190 (finding no evidence that volume discounts for other MVPDs, including DIRECTV, led to increased prices for smaller MVPDs).

[1056] *See* Evans Decl.; Evans Reply Decl.; *see also* COMPTEL Petition at 8-10 ("To be competitive in the residential broadband marketplace, competitive wireless providers must offer broadband and linear video services. . . . [COMPTEL members] offer linear video service at a loss, which necessarily impacts their ability to expand and upgrade their broadband networks."); NTCA—The Rural Broadband Association Reply at 3 (NTCA Reply) ("The combined entity will have the ability and incentive to drive up and/or withhold such video content from competitors, which will have the effect of increasing prices for consumers, reducing competition, and limiting rural providers and their competitive affiliates' ability to invest in improving the quality and reach of their broadband networks"); *see also* Brian Fung, *Here's the Single Biggest Thing Holding Google Fiber Back*, Washington Post (Oct. 6, 2014), http://wpo.st/es7G1 (noting that Google's Vice President of Access Service described video as "the single biggest impediment" to Google Fiber's deployment).

[1057] *See, e.g.*, Charter Jan. 29, 2016, *Ex Parte* Letter at 3 (stating that INCOMPAS's Dr. Evans "is wrong about the implications of these modest price reductions for broadband competition. He argues that customers will not buy broadband without video, that New Charter's lower programming prices will make its prices lower than some other

(continued….)

302. *Positions of the Parties.* INCOMPAS submits a declaration from economist Dr. David Evans purporting to show that the estimated programming cost savings generated by the transaction would lead to harmful effects in the provision of local BIAS.[1058] Dr. Evans argues that the transaction would harm local competition because of the following findings: (1) there is currently significant market failure in the provision of local BIAS in areas served by the Applicants; (2) this market failure would be exacerbated by New Charter's ability to secure even lower programming prices due to its increased market power; (3) this market failure would further reduce the incentives for smaller BIAS providers to invest in new fiber that meets or surpasses the speeds of the Applicants; and (4) this would ultimately result in households in the Applicants' service area having slower speeds, higher prices, and poorer customer service.[1059] In response, Charter characterized Dr. Evans's arguments as incorrect and unsupported.[1060] Charter asserts that Dr. Evans's assumptions about the implications of video programming cost reductions on BIAS competition are wrong, noting that Dr. Evans fails to support a central assumption of his theory—that it is impossible for BIAS providers to be successful without offering a video product.[1061]

303. *Discussion.* We are unpersuaded by Dr. Evans' arguments with respect to programming cost reductions harming local BIAS competition. Dr. Evans fails to support his arguments with quantifiable evidence. Early in his declaration, he notes that he lacks the proper data to accurately calculate the price increase in video programming that is central to his analysis,[1062] and he later admits that he does "not have sufficient data to quantify the extent to which the transaction would reduce competition by smaller BIAS providers and the impact on consumer welfare."[1063] Dr. Evans' conclusion is focused on New Charter taking localized pricing actions to make it more difficult for new-entrant BIAS providers to remain profitable. However there is no evidence that Charter currently engages in, or that New Charter intends to engage, in, pricing behavior on a local level to react to local BIAS competition.[1064]

304. As stated in greater detail below,[1065] we find that New Charter is likely to achieve cost savings from a reduction in its programming costs, and we find that it is likely that a portion of the programming payment reductions would be passed through to consumers as a benefit of the transaction. We also find a tenuous connection between lower programming prices, which might lead to lower standalone and bundled BIAS prices for New Charter, and reduced investment and deployment by competitive BIAS providers should they need to reduce consumer prices to better compete with New Charter.[1066] We agree with Charter's economist Dr. Katz that the sounder approach is to recognize that

(Continued from previous page)
companies', and that this price gap will deter broadband investment. This argument, however, confuses creating a stronger competitor with harm to competition.").

[1058] Evans Decl. at para. 69.

[1059] Evans Decl. at paras. 22-27.

[1060] Charter Jan. 29, 2016, *Ex Parte* Letter at 1-3.

[1061] *Id.* at 3.

[1062] Evans Decl. at para. 19.

[1063] *Id.* at para. 70.

[1064] Rather than a local approach to pricing, the Applicants state that New Charter would market and price its BIAS offerings uniformly throughout its new footprint based on Charter's current pricing and packaging model. Application at 19.

[1065] *See infra* Section VI.B.

[1066] In attempting to draw such a tenuous connection from a starting point of programming cost savings, we agree with Charter's Dr. Katz that petitioners such as INCOMPAS are confusing harm to competitors with harm to consumer welfare. *See* Katz Reply Decl. at 14-15.

cost savings generally promote competition unless they are obtained through anticompetitive means, which is not the case here.[1067]

8. New Charter's Debt

305. *Positions of the Parties.* The Commission received several comments claiming that New Charter's debt load would cause public interest harm or prevent New Charter from achieving its proffered public interest benefits. Free Press argues that the proposed transaction would result in a "massive" debt load because the Applicants would accrue approximately $27 billion in new debt that would not exist for the companies but for the transaction.[1068] MFRConsulting asserts that New Charter's claimed synergies and expected cash flow arising from the transaction would not be sufficient to cover its interest payments or reduce New Charter's debt.[1069]

306. Several commenters highlight potential consequences of New Charter's debt load. MFRConsulting argues that the transaction would create a substantial financial risk for the new company, leading to underinvestment in broadband, a constrained ability to improve its network, and perhaps bankruptcy for New Charter, and therefore is not in the public interest.[1070] Free Press contends that New Charter would be unlikely to be able to increase cash flow through organic growth and would face strong incentives to leverage its market power to raise prices and recover this debt, particularly in areas where it would not face a bundled competitor.[1071] Free Press also argues that New Charter's debt exacerbates its concern about the lack of competition in the bundled services market, which reduces the likelihood that the transaction's savings would be passed on to customers.[1072] Others cite New Charter's debt to EBITDA ratio as evidence of its financial instability.[1073]

307. Some commenters point to Charter's 2009 bankruptcy as a reason to be concerned about New Charter's debt level.[1074] Charter filed for Chapter 11 bankruptcy protection after acquiring too much

[1067] *Id.* at 5 ("Notably, there is no evidence that the proposed transactions' programming cost savings will arise from harm to competition.")

[1068] Free Press Reply at 4.

[1069] MFRConsulting claims that the interest payment on the debt would be approximately $5.5 billion per year (assuming an average interest rate of 8 percent) and New Charter's free cash flow would be $3.3 billion and efficiencies from the transaction would be $800 million per year requiring New Charter to find an additional $1.4 billion of its debt per year. MFRConsulting Comments at 2.

[1070] *Id.* at 1-2.

[1071] Free Press Reply at 4, 13. Free Press claims that New Charter would have a five-year compound annual EBITDA growth rate of 4.9 percent while their deleveraging target indicates a growth rate of 7 percent. Free Press Reply at 4-5. Free Press Reply at 5 n.10. The likelihood that prices would increase for Time Warner Cable customers and perhaps also Charter customers is very high, Free Press asserts, given the faster, more expensive broadband offering from Charter that would be rolled out to Time Warner Cable customers as well as the absence of a commitment from the Applicants to not increase prices. *Id.* at 7.

[1072] Free Press Reply at 22.

[1073] Some commenters argue that New Charter's debt to EBITDA ratio would be 4.5. WGAW Petition at 33; MFRConsulting Reply at 26. MFRConsulting also argues that we should compare the debt ratio of Time Warner Cable (which it says is 2.82) with that of New Charter, and not Charter's current debt ratio (4.7) with New Charter. [1073] MFRConsulting Reply at 26. WGAW also claims that Time Warner Cables' debt to EBITA ratio is 2.82. WGAW Petition at 33.

[1074] Free Press Petition at 20; MFRConsulting Comments at 3; MFRConsulting Reply at 8-10. WGAW also notes that Charter's debt load had previously threatened its ability to invest in its broadband network. WGAW Petition at 40.

debt from prior consolidation.[1075] Free Press claims that even though the amount of New Charter debt per customer relationship would be less than Charter's debt per customer relationship in 2009, it would still be higher than its peers.[1076]

308. The Applicants assert that New Charter's leverage ratio would remain approximately consistent with Charter's current levels[1077] and would be lower than a number of its peers.[1078] Moreover, New Charter's debt levels would be lower on a per subscriber basis than other MVPDs.[1079] The Applicants also argue that New Charter's cash flow cushion would increase and that it would be able to cover its interest payments on its total debt.[1080] The Applicants further note that Charter raised over 90 percent of the new debt at low rates, demonstrating that lenders believe New Charter would service its financing.[1081]

309. Dr. Scott Morton also argues that New Charter would be less likely to engage in foreclosing OVDs due to high debt levels.[1082] Dr. Scott Morton contends that higher debt levels generally raise the firm's discount rate, making the firm value current revenues more highly than future revenues. Therefore, New Charter would have less incentive to engage in collusive behavior to weaken OVDs in hopes of achieving higher profits in the future.[1083] Dr. Scott Morton argues that New Charter would have incentives to upsell customers to higher value packages to generate immediate revenues.[1084]

310. *Discussion.* Commenters raise two basic concerns about New Charter's proposed debt load: first, that it would increase New Charter's incentive to raise prices, in order to service its debt; and, second, that it would materially increase the risk of bankruptcy. We find both concerns unfounded.[1085] Regardless of New Charter's debt level, it will face the same competitors for its services in each local market. The amount of debt does not affect New Charter's profit-maximizing prices.[1086] In particular,

[1075] Free Press Petition at 20.

[1076] *Id.* Free Press estimates that Charter's debt per sub relationship in 2009 was $3,978 and for New Charter it would be $2,749. Free Press also estimates Time Warner Cable's current debt per customer relationship at $1,513, Bright House's at $800, and Comcast's at $1,777. *Id.*

[1077] Charter's leverage ratio is 4.3 today and New Charter's would be 4.5. *See* Opposition at 81.

[1078] Opposition at 81. Charter, using information from Bloomberg, provides the following leverage ratios for other MVPDs: WOW! (7.1x), Suddenlink (5.8x), Cablevision (5.3x), Mediacom BB (5.3x), DISH (5.1x), Mediacom LLC (4.4x), DIRECTV (2.5x), and Comcast (2.1x). *See* Opposition at 81 n.314.

[1079] New Charter would have a $2,492 per subscriber debt level, Cablevision $2,720, WOW $3,722, and Suddenlink $3,324. *See* Opposition at 82.

[1080] Charter's current interest expense is $700 million per year with an operating cash flow in 2014 of $1 billion—a 1.4x ratio and New Charter's interest expense would be $3.3 billion per year but it would have $7.8 billion pro forma operating cash flow—a 2.4x ratio. *See* Opposition at 82.

[1081] *Id.*

[1082] Scott Morton Reply Decl. at para. 22.

[1083] *Id.*

[1084] *Id.*

[1085] We also note that if New Charter would be forced to file for bankruptcy protection, it is highly likely that the company would continue to offer service, as Charter did when it previously filed for bankruptcy protection, thus mitigating the harms to those who rely on its services. This is yet an additional reason why we do not find any significant possibility of public interest harms arising from New Charter's debt load.

[1086] As discussed elsewhere, other factors due to the transaction may affect New Charter's marginal costs and marginal revenues, but this does not apply to the debt Charter proposes to take on as a result of this transaction. *Cf. infra* Section VI.B.

with the possible exception of decisions concerning new funds for capital investment,[1087] the change in New Charter's debt would not change New Charter's marginal costs,[1088] or its marginal revenues.[1089] It therefore would not change New Charter's pricing decisions or strategy. Consequently, we dismiss concerns that a higher debt would cause New Charter to raise prices or reduce pass through of synergies in order to pay off its debt.

311. With respect to the risk of bankruptcy, Charter's interest rates on the loans financing this proposed transaction appear low, and major credit rating agencies have generally responded positively to Charter's transaction-related announcements. Standard and Poor's (S&P) Rating Services expects to upgrade Charter's corporate credit rating to BBB from BB+ when Charter closes the transaction with Time Warner Cable and Bright House.[1090] In addition, the agency assigned its BBB- credit rating, which is one notch higher than Charter's current corporate credit rating, on the secured loan that Charter is assuming to fund the transaction.[1091] We note that S&P anticipates downgrading the loan to BB+ if Charter fails to close the transaction. Another major credit agency, Moody's Investor Services, also anticipates upgrading Charter's corporate credit rating if the transaction closes.[1092] The agency recently increased its rating on Charter's first lien secured bonds to fund the transaction by two notches higher than the previous rating on similar bonds.[1093] The upgrades in corporate credit and bond ratings indicate that the credit agencies view the transaction as an improvement to Charter's financial health. Additionally, New Charter's *pro forma* financial information does not support the argument that New Charter would be at a higher risk for bankruptcy.[1094]

312. New Charter's expected debt load does not warrant that the Commission ignore the business judgment of New Charter's lenders or the ratings agencies. In determining whether applicants are financially qualified to hold licenses, we do not substitute our business judgment for that of the applicants or the market.[1095] And while we cannot know with certainty whether New Charter would be free of financial difficulties after closing, we find that the general assessment of the financial community and New Charter's statements regarding its financial viability are reasonable. Based on the record before us, we find that New Charter's debt levels would be unlikely to harm consumers or materially increase the risk of bankruptcy.

[1087] For example, the increase in Charter's overall debt level could result in increases in its cost of borrowing new funds for capital investment, which could adversely impact New Charter's willingness to make such additional investments. However, as discussed below, we do not find this to be true.

[1088] For example, an increase in debt would not change how much it costs to deploy to a new home or to upgrade bandwidth speeds or to add or subtract services or to change customer service levels, etc.

[1089] For example, an increase in debt would not change how customers respond to price changes.

[1090] *See, e.g.*, Standard and Poor's Rating Services, *Charter Communications Inc. Senior Secured Term Loan H Rated 'BBB-' (Recovery: 1); Rating Placed on CreditWatch Positive* (July 20, 2015).

[1091] *See, e.g., id.*

[1092] *See, e.g.*, Moody's Investors Service, *Rating Action: Moody's assigns Ba1 to Charter's 1st lien secured bonds, Ba3 CFR remains on review for upgrade*, Moody's, (July 9, 2015).

[1093] *See, e.g., id.*

[1094] *See* CHR2-DOJ-00000166896, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; Charter, *Charter to Merge with Time Warner Cable and Acquire Bright House Networks* at 8, 13, 17-20, 26 (May 26, 2015), http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NTgyMjE4fENoaWxkSUQ9Mjg4NDk2fFR5cGU9MQ==&t=1. *See also* Winfrey Decl. at para. 17; Opposition at 81-82.

[1095] *See Applications Filed by Frontier Communications Corporation and Verizon Communications, Inc. for Assignment or Transfer of Control*, Memorandum Opinion and Order, 25 FCC Rcd 5972, 5981-83, para. 19 (2010).

9. NAB and Entravision Petitions

313. In this section, we address petitions from National Association of Broadcasters (NAB) and Entravision asking the Commission to hold its review of this transaction in abeyance pending completion of other proceedings. In its Petition, NAB argues that the Commission should not approve the transaction before it completes its quadrennial review of broadcast ownership rules and modifies or eliminates those rules accordingly.[1096] NAB states that the combination of the Commission's failure to complete such a review of broadcast ownership rules since 2006 and the recent consolidation of MVPDs through a series of mergers have unfairly tilted the playing field in a number of different areas, thereby "injur[ing] local stations' competitive standing and their ability to offer consumers a viable, free television viewing option."[1097] Similarly, in its Petition to Deny, Entravision asks the Commission to hold its review in abeyance until the completion of its study on the Hispanic television market, ongoing since October 2013.[1098] Entravision argues that given the dramatic growth of the Latino television market, the Commission should conclude the study and apply its findings to this and future merger review proceedings.[1099]

314. *Discussion.* NAB's complaints regarding the Commission's timely review and modification of the broadcast ownership rules are more appropriately addressed in the quadrennial review proceedings.[1100] Those alleged harms pre-date the filing of this Application and are not related to the transaction proposed therein. We therefore deny NAB's petition.[1101] Insofar as NAB is complaining, however, that *this* transaction—the proposed combination of Charter, Time Warner Cable and Bright House—would cause harm to its members, and to the public interest, that is a proper subject of our review, and we have discussed those alleged harms above.[1102] Similarly, we have addressed the issues regarding Latino programming raised by Entravision above.[1103] Insofar as Entravision asks us to apply the findings of the yet-unfinished study of the Hispanic television market to future transactions, that is an issue for those proceedings, not this one.[1104] We therefore deny NAB's and Entravision's requests to hold our review of the transaction in abeyance.

[1096] NAB Petition at 1.

[1097] NAB Petition at 4-5, 13-14, 14-18.

[1098] Entravision Petition at 5-6. *See also* Press Release, FCC, FCC Announces New Study Examining Hispanic Television Viewing as Part of Commitment to Encourage Broadcast Diversity (Oct. 24, 2013), https://apps.fcc.gov/edocs_public/attachmatch/DOC-323676A1.pdf.

[1099] Entravision Petition at 5-6.

[1100] *See 2014 Quadrennial Regulatory Review*, Further Notice of Proposed Rulemaking and Report and Order, 29 FCC Rcd 4371 (2014); *2010 Quadrennial Regulatory Review*, Notice of Proposed Rulemaking, 26 FCC Rcd 17489 (2011); *2006 Quadrennial Regulatory Review*, Report and Order and Order on Reconsideration, 23 FCC Rcd 2010 (2008), *aff'd in part, vacated in part, remanded, Prometheus Radio Project v. FCC*, 652 F.3d 431 (3d Cir. 2011).

[1101] *See supra* Section III (stating that the Commission only addresses transaction-specific issues). *See also Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings*, Memorandum Opinion and Order and Declaratory Ruling, 23 FCC Rcd 17444, 17525, para. 180 (2008); *Applications of AT&T Inc. and Centennial Communications Corp.*, Memorandum Opinion and Order, 24 FCC Rcd 13915, 13969, para. 133 (2009).

[1102] *See supra* Section V.D.3 (addressing NAB's concerns regarding the concentration of video programming in the competitive broadcast television market post-transaction).

[1103] *See supra* Section V.G.5.b(ii) (stating that the Commission declines to define a separate Latino programming market in this transaction); *see also supra* Section V.G.5.a (discussing potential carriage discrimination for diverse programmers).

[1104] Although Entravision has moved to withdraw its petition, we will still evaluate the merits of the petition. *See Verizon Wireless-SpectrumCo Order*, 27 FCC Rcd at 10708, para. 23; *Stockholders of CBS Inc. (Transferor) and*

(continued….)

VI. ANALYSIS OF POTENTIAL BENEFITS

315. The Applicants claim the proposed transaction would benefit consumers by: (1) extending Charter's broadband-focused, highly pro-customer business model to millions of new customers; (2), deploying the best that each Applicant has to offer in broadband, video and voice technology; (3) delivering superior services at competitive prices; and (4) ensuring these services are at the cutting edge of innovation.[1105] The Applicants predict that by the third year after closing, the transaction would generate annual operating cost savings of approximately $800 million per year, arising from programming cost savings and indirect overhead savings.[1106] We discuss these claims below.

A. Analytical Framework

316. In determining whether approval of a transaction is in the public interest, we evaluate whether the transaction is likely to produce public interest benefits. We apply several criteria in deciding whether each public interest benefit claimed by the Applicants is cognizable. First, each claimed benefit must be transaction-specific. That is, the claimed benefit must be likely to occur as a result of the transaction but unlikely to be realized by other practical means having less anticompetitive effect.[1107]

317. Second, each claimed benefit must be verifiable. Because much of the information relating to the potential benefits of a transaction is in the sole possession of the Applicants, they have the burden of providing sufficient evidence to support each claimed benefit to enable us to verify its likelihood and magnitude.[1108] We will discount or dismiss speculative benefits that we cannot verify.[1109] As the Commission explained in the *EchoStar-DIRECTV HDO*, "benefits that are to occur only in the distant future may be discounted or dismissed because, among other things, predictions about the more distant future are inherently more speculative than predictions about events that are expected to occur closer to the present."[1110]

318. Third, we calculate the magnitude of benefits net of the cost of achieving them.[1111] Fourth, benefits must flow through to consumers, and not inure solely to the benefit of the company.[1112]

(Continued from previous page)
Westinghouse Elec. Corp. (Transferee), Memorandum Opinion and Order, 11 FCC Rcd 3733, 3739, 3741 paras. 8, 14 (1995) (*citing Application of Booth American Co. for Renewal of License for Stations WJVA and WRBR(FM) South Bend, Indiana*, File Nos. BR-1877 et al., Memorandum Opinion and Order, 58 F.C.C.2d 553, 554 (1976).

[1105] Application at 17.

[1106] Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed July 10, 2015); *see also* Charter Response to Information Request at 267, 290.

[1107] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 273; *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3330, para. 140; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630, para. 189.

[1108] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 274; *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3331, para. 140; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630, para. 190

[1109] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 274; *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3331, para. 140; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630, para. 190.

[1110] *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630-31, para. 190. *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 274.

[1111] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 275; *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3331, para. 140; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630, para. 190.

[1112] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 275.

For example, we will more likely find marginal cost reductions to be cognizable than reductions in fixed cost because reductions in marginal cost are more likely to result in lower prices for consumers.[1113]

319. We apply a "sliding scale approach" to evaluating benefit claims. Under this sliding scale approach, where potential harms appear both substantial and likely, the Applicants' demonstration of claimed benefits must show a higher degree of magnitude and likelihood than the Commission would otherwise demand. On the other hand, where potential harms appear less likely and less substantial, we will accept a lesser showing.

320. As discussed below, we recognize that the transaction offers certain benefits as a result of efficiencies associated with modest reductions in programming payments. This conclusion is supported by the economic analysis and documentary evidence discussed below. However, these reductions in programming payments constitute a public interest benefit only to the extent they are passed on to consumers in the form of lower prices. We attribute minimal, and in some instances, no weight to the other public interest benefits claimed by the Applicants. Some of the Applicants' additional claimed benefits such as residential broadband speed upgrades or network buildout to residential customers are not transaction-specific. Others, such as the conversion of Time Warner Cable and Bright House systems to all-digital and innovation in video devices, are not verifiable as the Applicants have not provided sufficient evidence to enable the Commission to verify their likelihood or magnitude. These claimed benefits are, thus, only minimally credited as public interest benefits of the transaction. Furthermore, because we find that the transaction will likely cause public interest harms, we impose conditions both to prevent transaction-specific harms and to guarantee consumer benefits that will ensure that the transaction is in the public interest.

B. Reduced Programming Acquisition Costs

321. The Applicants claim that the transaction would lead to programming payment reductions.[1114] After evaluating the record, we conclude that there likely would be some reduction in programming cost as a result of the transaction, and that New Charter likely would pass through some of these savings to consumers. We attribute only the portion of programming payment reductions that New Charter will likely pass onto consumers as a public interest benefit. Further, we find that it is unlikely that Charter could have achieved these same programming payment reductions absent the transaction through a buying cooperative.

322. *Positions of the Parties*. According to the Applicants, New Charter likely would be able to lower its per-subscriber programming payments by taking advantage of Time Warner Cable's lower programming costs.[1115] They argue that part of that reduction in programming payments would likely be passed through to subscribers in the form of lower prices, and that part of the cost savings would provide New Charter with capital to support the deployment of advanced broadband services.[1116] Some

[1113] *See id.* at 9237-38, para. 275; *News Corp.-Hughes Order*, 19 FCC Rcd at 611, para. 317; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20631, para. 191.

[1114] Charter July 10, 2015, *Ex Parte* Letter at 1-2; Scott Morton Decl. at para. 23; Charter Response to Information Request at 268, 272-273; Katz Reply Decl. at para. 10.

[1115] Katz Reply Decl. at para. 10; Charter Response to Information Request at 268, 272-273. *See also* Charter July 10, 2015, *Ex Parte* Letter at 1-2; Scott Morton Decl. at para. 23; Charter Oct. 27, 2015, Updated Response to Information Request at 80. The Applicants claim that even after accounting for these cost savings, they expect that programming payments would continue to increase for New Charter. *See* Charter July 10, 2015, *Ex Parte* Letter at 1.

[1116] Scott Morton Decl. at para. 23; Opposition at 25-27; Katz Reply Decl. at paras. 12, 40-59. *See infra* Section VI.F for a discussion on residential buildout.

commenters agree that reduced programming costs would ultimately benefit subscribers.[1117] The Applicants estimate that programming payment reductions resulting from the transaction would be at least **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million by the third year after closing.[1118]

323. To support their claims, the Applicants submitted a programming payment reduction analysis by Dr. Katz. He concludes that the proposed transaction would result in lower programming costs and that these would generate incentives for New Charter and its competitors to offer lower quality-adjusted prices for video services.[1119] Dr. Katz estimates the reductions in New Charter's programming costs as a result of the transaction using both a "top-down and a "bottom-up" methodology, and then estimates the rate of pass through of these reductions to consumers.[1120] For both types of analyses, he assumes that Charter would be able to step into Time Warner Cable's programming agreements when its contracts expire, but does not include any reductions from New Charter's greater size.[1121]

324. For the "top-down" analysis, Dr. Katz begins with the total average programming payment reduction analysis the Applicants previously submitted and makes adjustments to convert this estimate to reflect marginal cost savings.[1122] Further, Dr. Katz adjusts the marginal cost programming payment reduction to account for Time Warner's higher penetration of basic video service, yielding a monthly per-subscriber marginal cost programming payment reduction of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1123]

[1117] *See* ITIF Comments at 5; Letter from Village of Spring Lake, MI, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Oct. 27, 2015); Letter from Ray Scot, State Senator from Colorado, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Jan. 20, 2016).

[1118] The Applicants state that this estimate is based on Time Warner Cable's total programming costs and publicly available video customer data adjusting to account for differences between Charter and Time Warner Cable. These programming payment reductions do not assume any effects related to New Charter's greater scale. Charter July 10, 2015, *Ex Parte* Letter at 2; Charter Response to Information Request at 268-272; Opposition at 25, 27. *See also* Katz Reply Decl. at paras. 19-21. The Applicants estimate that for the first year (2016) that the total programming payment reduction would be approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** each year thereafter. *See* Katz Reply Decl. at para. 20 n.18.

[1119] Katz Surreply Decl. at para. 4.

[1120] Katz Reply Decl. at paras. 10, 18-36; Katz Surreply Decl. at para. 8.

[1121] Katz Reply Decl. at paras. 18, 21, 28. Dr. Katz makes additional assumptions about Charter's ability to step into Time Warner Cable's contracts, including: (1) in the instances in which Charter currently obtains more favorable rates than Time Warner Cable, the legacy Charter systems would continue to pay Charter's; and (2) legacy Time Warner Cable systems would continue to pay the rates determined by current Time Warner Cable contracts for the duration of the contract. Katz Reply Decl. at para. 28.

[1122] Katz Reply Decl. at paras. 10 n.4, 18-24; *see also* Charter July 10, 2015, *Ex Parte* Letter at 2; Charter Response to Information Request at 271-273; Katz Surreply Decl. at para. 15. To derive a marginal programming payment cost savings, Dr. Katz removes any programming in which the contract is a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** for either Applicant. This adjustment reduces the per-subscriber programming payment reduction to **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. *See* Katz Reply Decl. at paras. 23-24; Katz Surreply Decl. at para.15.

[1123] Katz Reply Decl. at paras. 10, 24. Dr. Katz also claims that New Charter's business plan assumes that programming cost per video subscriber for current Charter customers would grow at a compound annual growth rate (CAGR) of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. Katz Reply Decl. at para. 25. According to Dr. Katz, Charter projects that Time Warner Cable's programming costs would increase at the same rate, and therefore Dr. Katz claims that this implies that the programming payment reductions per subscriber would also grow at the same CAGR. Katz Reply Decl. at para. 25.

325. Dr. Katz's "bottom-up" analysis estimates the amount Charter's 2015 programming expenses would fall using the terms of Time Warner Cable's contracts.[1124] Dr. Katz then makes certain adjustments to account for the fact that the two companies do not have identical programming lineups, tiers, and coverage areas.[1125] Dr. Katz notes other factors that should be taken into account, including monetary transfers that may affect programming costs.[1126] Dr. Katz's bottom-up analysis estimates a monthly per-subscriber marginal cost programming payment reduction of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**, a savings rate of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.[1127]

326. Dr. Katz concludes that New Charter would pass through approximately 50 to 60 percent of the marginal cost savings,[1128] totaling **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million per year.[1129] He bases his conclusion on various economic models, which yield qualitatively similar results. First, Dr. Katz notes that several well-known, canonical models of consumer demand yield pass-through rates that exceed 50 percent; this result holds both for the case in which the firm whose costs have changed is a monopolist (or, more generally, treats its competitors' prices as fixed) and for the case in which firms sell differentiated products and engage in simultaneous-move price (also known as "Bertrand") competition.[1130] Dr. Katz then considers two versions of a logit

[1124] Katz Reply Decl. at para. 26. Dr. Katz excludes contracts with fixed or lump sum payments because it would be difficult to develop a measure of marginal costs from these types of contracts. *See* Katz Reply Decl. at para. 31; Katz Surreply Decl. at para. 15.

[1125] Katz Reply Decl. at para. 29. The Katz Reply Declaration does not detail how these issues are taken into consideration and what if any adjustments were made to account for them.

[1126] *Id.* at para. 30. Dr. Katz concludes that it is difficult to assess to what degree any additional cost savings from these factors can be converted to marginal cost savings so these adjustments were not applied. *Id.*

[1127] *Id.* at paras. 10, 32, 133-161. Dr. Katz claims that his estimates are conservative because: (1) there is likely to be growth in the base on which savings would be earned; (2) he assumes that Time Warner Cable would remain in its contracts even if Charter's rates are lower; and (3) he does not make changes to account for any programming cost reduction per subscriber that may accrue to a larger firm. *See id.* at paras. 31-36.

[1128] Katz Reply Decl. at paras. 7, 40; Katz Surreply Decl. at paras. 9, 16. Dr. Katz contends that an industry-wide merger to monopoly would give rise to different competitive effects than those in the proposed transaction, and he is unaware of any harms that may arise in the programming market as a result of this transaction. *See* Katz Surreply Decl. at para. 32.

[1129] Katz Reply Decl. at paras. 10, 65; Katz Surreply Decl. at para. 7. Dr. Katz initially estimated the lower bound of the programming payment pass-through at **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million, but subsequently lowered it to **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million using corrected data. *See* Katz Surreply Decl. at para. 7 n.10.

[1130] Katz Reply Decl. at para. 42-44.

demand model,[1131] the parameters of which he estimates using market data from SNL Kagan.[1132] Both versions predict pass-through rates above 50 percent.[1133]

327. Finally, Dr. Katz considers a model in which a supplier sells output at a common price in several different markets and realizes a marginal cost reduction in only a subset of these markets, to account for New Charter's pricing strategy having both local and national elements.[1134] This analysis indicates that pass-through would still occur and, using a linear demand function coupled with other assumptions, Dr. Katz finds that the firm would pass on half of its cost savings to consumers.[1135]

328. To support his modeling work, Dr. Katz points to an econometric analysis of the cable television industry by Ford and Jackson and Charter's own experience as evidence that New Charter would pass on a portion of its programming payment reductions.[1136] Dr. Katz discusses three different mechanisms by which Charter previously raised its prices in response to programming cost increases: (1) passing through retransmission consent cost increases; (2) increasing the monthly set-top boxes lease fees; and (3) changing the quality-adjusted prices for video service by, for example, dropping networks to reduce programming expenditures.[1137] Dr. Katz estimates Charter passed through retransmission cost increases by approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, corresponding to an overall content cost pass-through rate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. Including increases in set-top box fees in his calculations results in a programming payment increase pass-through rate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.[1138] Dr. Katz concludes that it is difficult or possibly

[1131] In a standard logit demand model, a consumer's utility (satisfaction) can be viewed as the sum of two parts: the first is common to all consumers and is called the "mean utility" (a function of the price, service quality, and other product and demographic characteristics). The second part is an idiosyncratic preference term, which captures the fact that individuals vary in their preferences for different products in random ways. This idiosyncratic component, which is unobserved by the econometrician, gives the model the flexibility to account for differences in consumer choices. *AT&T-DIRECTV Order*, 30 FCC Rcd 9131, para. 23; *see also, e.g.*, Kenneth E. Train, Discrete Choice Methods with Simulation (Cambridge Univ. Press 2009).

[1132] Katz Reply Decl. at para. 46 n.43.

[1133] *Id.* at paras. 42-44, 167-169. The differentiated Bertrand model also would result in the firm's rivals lowering their prices, benefiting consumers. *See* Katz Reply Decl. at para. 44. Differentiated Bertrand competition is when each firm sets the prices that maximize its profits given the other firms' prices. *AT&T-DIRECTV Order*, 30 FCC Rcd 9131, Appendix C, para. 29. *See generally* Tirole, Jean, The Theory of Industrial Organization 203 (2003). Dr. Katz then calculates a pass-through rate using a logit demand formula both at the local and national levels because New Charter's pricing strategy would have local and national elements, and finds a pass-through rate of 58 to 62 percent. At the local level, Dr. Katz applies the logit demand formula to market data at the zip code level and then aggregates up to project the average rate that Charter would pass through programming payment reductions. The logit demand model requires data on the share of the outside good, and Dr. Katz uses two estimates for the share of the outside good. The first approach assumes that the share of the outside good is zero everywhere and the second approach utilizes DMA-level data on non-pay households. Katz Reply Decl. at paras. 10, 45-48.

[1134] Katz Reply Decl paras. 48, 163-166.

[1135] *Id.* at para. 48. A linear demand function is graphed as a straight line showing the relationship between the price of a good and the quantity of that good consumers are willing to pay at a certain price. *See* Mansfield, Edwin, and Gary Yohe, Microeconomics: Tenth Edition (2000) at 28.

[1136] Katz Reply Decl. at paras. 49-55; Katz Surreply Decl. at para. 16. Dr. Katz cites to George S. Ford and John D. Jackson, *Horizontal Concentration and Vertical Integration in the Cable Television Industry*, Review of Industrial Economics, (1997) 12:501-518 (Ford and Jackson (1997)). Dr. Katz also cites to work by Gregory Crawford and Ali Yurukoglu and to a 2009 FCC report on cable industry prices. *See* Katz Reply Decl. at para. 50.

[1137] Katz Reply Decl. at paras. 51-54.

[1138] *Id.* at paras. 51-52.

impossible to determine a specific pass-through from these actions, but they are consistent with Charter passing through cost increases.[1139] Therefore, Dr. Katz contends that a projected pass-through of 50 to 60 percent is consistent with Charter's observed behavior.[1140]

329. Some commenters argue that reductions in programming costs as a result of the transaction are not public interest benefits because they would not be passed on to consumers[1141] or that the reduction in costs may cause competitive harm.[1142] There is disagreement both about the size of the reductions and about the magnitude of the pass-through rate. For example, DISH argues that New Charter's increased bargaining power would result in programming cost reductions in addition to those claimed by the Applicants.[1143] Cincinnati Bell argues that programming cost reductions would be significant,[1144] whereas Free Press claims that any programming cost savings resulting from the transaction would be miniscule.[1145]

330. Some commenters argue that Dr. Katz inappropriately bases his pass-through rate analysis on Charter's cost increases, but that there is no evidence that programming payment reductions would be passed on at the same rate.[1146] NAB argues that New Charter has no incentive or legal requirement to pass through program savings to consumers.[1147]

331. Hawaiian Telcom argues that the cost reductions would lead to anticompetitive results. It claims that New Charter would use the increased differential between its programming costs and those of small MVPDs in Hawaii to engage in a predatory pricing.[1148] In particular, Hawaiian Telcom argues that New Charter would selectively pass through programming payment reductions in the short run to drive out competition in competitive markets and then raise prices everywhere.[1149]

[1139] *Id.* at para. 51.

[1140] *Id.* at para. 52.

[1141] Free Press Petition at 2; WGAW Petition at 38; DISH Reply at 31; *see also* Public Knowledge Reply at 8 (questioning pass-through rates); Entravision Reply at 3-4 (arguing downstream competition insufficient to incent pass-through).

[1142] COMPTEL Petition at 8-11; INCOMPAS Reply at 9-10; Cincinnati Bell Comments at 19; NTCA Jan. 29, 2016, *Ex Parte* Letter at 2 (stating that even if programming cost savings were passed through to consumers, the horizontal combination would significantly harm competition); Public Knowledge et al. Petition at 14-16; DISH Jan. 20, 2016, *Ex Parte* Letter at 2. For a discussion of potential competitive harms that may arise *see supra* Sections V.G.5.b and V.G.6. Public Knowledge argues that the Commission should consider whether programming payment reductions result from real efficiencies and not from anticompetitive leverage. Public Knowledge et al. Petition at 14-16.

[1143] DISH Petition at 54.

[1144] Cincinnati Bell Comments at.11- 13; Cincinnati Bell Reply at 2-3. Cincinnati Bell claims that these programming payment reductions would hurt smaller MVPDs. Cincinnati Bell Comments at 13. *See also supra* Section V.G.6.

[1145] Free Press Petition at 23. Free Press argues that while Charter's per subscriber programming payments exceed those of Time Warner Cable, the gap is closing. Free Press also contends that Charter's per subscriber programming costs increased at a slower rate than Time Warner Cable's. Free Press Petition at 23-24.

[1146] Entravision Reply at 4 n.11; Public Knowledge Reply at 8; INCOMPAS Reply at 7; DISH reply at 31.

[1147] NAB Reply at 2-4.

[1148] Hawaiian Telcom Comments at 19. According to Hawaiian Telcom, New Charter would raise prices in markets where it faces competition, in order to drive its competitors out of the market, while maintaining prices in markets where it faces less or no competition. *See* Hawaiian Telcom Comments at 19.

[1149] Hawaiian Telcom Comments at 20.

332. INCOMPAS argues that the Applicants' claimed programming payment reductions would be a result of increased bargaining power.[1150] INCOMPAS agrees, however, that New Charter would likely pass through programming payment reductions to customers but doubts the amount of the pass-through.[1151] INCOMPAS submitted the expert report of Dr. David Evans, who agrees with Dr. Katz that the average total cost of video programming for New Charter would be reduced because Charter would step into Time Warner Cable's contracts, but also argues that a further reduction would result from New Charter's increased bargaining power.[1152] Based on a regression analysis, Dr. Evans calculates that, as a result of the transaction, Charter's programming payments would be reduced by **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent (compared to what it pays today) and Time Warner Cable's and Bright House's payments would be reduced by **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent (compared to what they pay today).[1153]

333. Dr. Evans agrees with Dr. Katz that, as a general matter, Charter would pass on marginal cost savings,[1154] but does not find Dr. Katz's pass-through analysis persuasive. Dr. Evans also claims that New Charter would use its increased margins from a reduction in programming payments to lower prices in limited local areas.[1155] Dr. Evans claims that Dr. Katz's logit demand and Bertrand competition pass-through analyses are flawed because they rely on a model that assumes New Charter sells a single product at a single price, rather than several products, including a bundled offering.[1156] Further, Dr. Evans argues that Dr. Katz provides no econometric evidence that the logit demand model or the Bertrand competition

[1150] COMPTEL Petition at 7, 11-12; INCOMPAS Dec. 4, 2015, *Ex Parte* Letter at 1; Evans Decl. at paras. 10, 16-19, 35, 53 n.47, 107; INCOMPAS Jan. 27, 2016, *Ex Parte* Letter at 2. INCOMPAS claims that Dr. Katz's findings in the AT&T/DIRECTV transaction support INCOMPAS's position that the instant transaction would result in New Charter having greater market power over programmers. *See* INCOMPAS Jan. 27, 2016, *Ex Parte* Letter at 2.

[1151] INCOMPAS Jan. 15, 2016, *Ex Parte* Letter at 3; INCOMPAS Jan. 27, 2016, *Ex Parte* Letter at 2-3; *see also* Evans Decl. at para. 129. INCOMPAS in its Reply raises a question as to whether programming payment reductions would be passed on and even if they were it does not address potential harms to broadband competition. INCOMPAS Reply at 7-8; *see also* INCOMPAS Dec. 4, 2015, *Ex Parte* Letter at 2; NTCA Jan. 29, 2016, *Ex Parte* Letter at 2.

[1152] Evans Decl. at para. 107. Dr. Evans also agrees with other factors in Dr. Katz's analysis. *Id.* Dr. Evans contends that Dr. Katz's analysis does not take into account that New Charter would be able to negotiate lower prices per subscriber, and that his analysis indicates that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Evans Decl. at para. 61. He also argues that Dr. Katz underestimates the bargaining leverage New Charter would have by failing to analyze additional programming payment reductions due to New Charter's increased scale. Entravision argues that Charter stepping into Time Warner Cable's contracts is not a cost savings but rather a transfer of surplus that the Commission does not recognize as a public interest benefit. Kwoka Reply at paras. 11-12; Entravision Reply at 3.

[1153] Evans Decl. at paras. 58, 62. Dr. Evans claims that the average total programming savings calculated by Dr. Katz and the Applicants is larger and generally consistent with the difference calculated from his regression. Evans Decl. at para. 60. The average total cost savings is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per subscriber per month and Dr. Evan's estimate is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per subscriber per month. Dr. Evans uses the total average cost reduction rather than Dr. Katz's top-down marginal cost reduction to estimate savings after New Charter renegotiates its agreements.

[1154] Evans Decl. at para. 107.

[1155] *Id.* at para. 129; *see also* INCOMPAS Jan. 27, 2016, *Ex Parte* Letter at 3 n.6.

[1156] Evans Decl. at paras. 119-122, 126. Dr. Evans also argues that Charter uses promotional discounts that vary across local areas and this is not captured by Dr. Katz's analysis. *See* Evans Decl. at para. 119. Dr. Katz argues that Dr. Evans has not provided any meaningful analysis of how bundling matters to the rate of pass-through of programming payment reductions. *See* Katz Surreply Decl. at para. 18. The logit demand is a simplified form of the nested logit model used in the assessment of AT&T/DIRECTV. *See* Katz Surreply Decl. at para. 18 n.41.

model accurately portrays how MVPDs compete.[1157] Dr. Evans also contends that the 50 percent pass-through rate from Ford and Jackson would not apply because it is a study from 1994 before video was bundled with broadband and voice services.[1158]

334. Further, Dr. Evans claims that Dr. Katz's analysis of Charter's retransmission cost pass-through is inconsistent with his logit formulation and other studies cited by Dr. Katz because there is no reason the two pass-through rates should be different.[1159] Further, Dr. Evans argues that Dr. Katz has not proven that set-top box price increases are tied to increases in video programming costs.[1160] Dr. Evans then contends that Dr. Katz made an arbitrary calculation that happens to yield a number close to the one he derived from the logit simulation.[1161] Finally, Dr. Evans argues that Dr. Katz could have tested the general proposition of passing through cost increases by examining the Applicants' pricing behavior, and in particular that his general proposition predicts that Time Warner Cable should charge significantly lower prices than Charter because its programming cost are significantly less.[1162]

335. Dr. Katz counters that claims that New Charter would not pass on a portion of programming payment reductions contradict economic principles.[1163] Further, Dr. Katz contends that commenters are incorrect that the level of competition in the video distribution industry is insufficient to cause cost savings to be passed through because even a monopolist faces incentives to pass on marginal cost savings to subscribers.[1164] Dr. Katz also argues that several commenters raise concerns that programming payment reductions would make New Charter a stronger competitor, confusing harms to competitors with harms to competition, and that this indicates these commenters expect a significant pass-through to occur.[1165]

[1157] Evans Decl. at paras. 121-122. Dr. Katz argues that the Commission concluded in the *AT&T/DIRECTV Order* that a nested logit model and a Bertrand pricing model were appropriate for analyzing the industry. *See* Katz Surreply Decl. at para. 18.

[1158] Evans Decl. at paras. 20 n.14, 124. Dr. Katz argues that he cited Ford and Jackson (1997) as corroboration to the point that it is reasonable to use a pass-through rate of approximately 50 percent in this industry. *See* Katz Surreply Decl. at para. 26 n.52. Dr. Evans contends that Ford and Jackson (1997) concludes that consumer welfare would be reduced because the benefits from a partial pass-through are outweighed by the costs of reduced competition from barriers to entry. Evans Decl. at paras. 21 n.17, 125, citing Ford and Jackson (1997). *See also* INCOMPAS Jan. 15, 2016, *Ex Parte* Letter at 2-3. Dr. Evans claims Ford and Jackson (1997) does not support Dr. Katz's conclusion that lower video programming costs for large distributors increases welfare, and in fact shows that a merger would decrease consumer welfare. Evans Decl. at para. 125.

[1159] Evans Decl. at para. 126. Dr. Evans states that the pass-through rate of retransmission fees was more than **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.

[1160] *Id.* at para. 127.

[1161] *Id.* To reach this estimate, Dr. Katz combined Charter's video price increases caused by rising retransmission costs with programming cost increases that he claimed were passed on in the form of higher set-top box fees. *Id.*

[1162] *Id.* at para. 128.

[1163] Katz Reply Decl. at paras. 57, 59. The economic principle that profit maximizing prices depend in part on marginal costs and in turn that changes in marginal costs generally lead to changes in profit maximizing prices. *See id.* at para. 57. Dr. Katz also argues that economic theory does not generally predict that a firm competing in a concentrated market would likely pass on less of the cost savings than a firm in a more competitive market. *See id.* at para. 59.

[1164] *Id.* at para. 58.

[1165] *Id.* at paras. 60-63; Katz Surreply Decl. at para. 20.

336. Dr. Katz also responds that Hawaiian Telcom does not present evidence that predatory pricing would be likely in this case.[1166] Dr. Katz argues that Dr. Evans, presents no analysis to support his claim that New Charter would engage in limited price reductions to harm competition.[1167] Further, Dr. Katz contends that economic theory shows that New Charter would have incentives to pass on marginal cost savings in any local market, and that a firm operating in multiple markets would rationally choose to pass through different proportions of cost savings in the face of varying levels of competition.[1168]

337. INCOMPAS also argues that New Charter could achieve its claimed programming payment reductions through a video programming purchasing cooperative[1169] and that the Applicants' dismissal of this idea is inconsistent with Time Warner Cable's cooperative purchasing agreement with Bright House.[1170] The Applicants argue that buying cooperatives may achieve cost savings if the buyers demand similar products, but Charter and Time Warner Cable negotiate complex agreements for different programming lineups, and therefore have different licensing priorities.[1171] They also state that in 2009 Charter made an effort to create a buying cooperative, but the members found it difficult to reach an agreement among themselves because of differences between their interests.[1172]

338. INCOMPAS alternatively requests the Commission to require New Charter to establish a cooperative that would include the Applicants and small MVPDs.[1173] INCOMPAS argues that a cooperative would mitigate harm to local residential BIAS by providing a structure that would incentivize smaller MVPDs to compete against incumbent MVPDs including in New Charter's footprint.[1174]

339. *Discussion.* We find that the Applicants' programming costs may be reduced as a result of the proposed transaction, but we decline to attribute this possibility as a benefit unless the savings are likely to accrue to consumers. While we acknowledge that the analysis by Dr. Katz and his staff generally appears reasonable, we do not have access to the underlying data and cannot verify his calculations. In general, we find both Dr. Katz's "top-down" analysis and his "bottom-up" analysis to be reasonable and conservative methods to derive an estimate of marginal cost savings. We also find, however, that some of Dr. Katz's assumptions may lead to biases in the estimates.[1175]

[1166] Katz Reply Decl. at para. 64.

[1167] Katz Surreply Decl. at para. 17. Dr. Katz also argues that Dr. Evans has not provided any evidence that the largest MVPDs, which generally have lower programming payments have used those savings to limit local competition. *See id.*

[1168] *Id.*

[1169] INCOMPAS Reply at 4-5, 10-12; INCOMPAS Jan. 27, 2016, *Ex Parte* Letter at 2.

[1170] INCOMPAS Reply at 11-12. INCOMPAS also claims that a buying cooperative would promote additional broadband infrastructure investment in the Charter and Time Warner Cable footprints by equalizing video programming payments which they claim is a primary hurdle to building new broadband networks. INCOMPAS Reply at 12.

[1171] Katz Reply Decl. at paras. 37-38; Katz Surreply Decl. at para. 10.

[1172] Katz Reply Decl. at para. 39; Katz Surreply Decl. at para. 10 n.19, para. 11.

[1173] INCOMPAS Jan. 27, 2016, *Ex Parte* Letter at 2.

[1174] *Id.*

[1175] For example, Dr. Katz assumes that Charter can retain any favorable contracts it currently enjoys but switch to the terms received by Time Warner Cable when those rates are more favorable immediately upon closing. In the recent AT&T-DIRECTV transaction, however, the Applicants contended that the reductions in programming costs they anticipated would be phased in over several years. *AT&T-DIRECTV Order*, 30 FCC Rcd at 9244, para. 288.

340. We analyzed anonymized video programming data submitted by the Applicants in response to the Commission's Information and Data Request.[1176] Our analysis found that for the networks for which the Applicants submitted data, Charter's programming payments are higher than Time Warner Cable's.[1177] Next, calculating both a simple and a weighted average for each program, we found that for **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** of the reported networks, Charter's programming payments are greater than Time Warner Cable's.[1178] Our analysis of the ratio of total per subscriber programming payments across all reported networks also shows a significant spike in the ratio in **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1179] We then calculated the difference in the simple average and the weighted average ratio for 34 of the 36 networks for the two time periods **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1180] We found that the ratio for the simple average and the weighted average for **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** is higher for more than **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of the networks.[1181]

341. We also agree with Dr. Katz that New Charter would likely pass through some portion of the programming payment reductions to consumers; however we find that Dr. Katz's estimate of 40-60 percent may be overstated. As Dr. Evans points out, each of Dr. Katz's approaches is not without flaws. For example, we agree with Dr. Evans that the industry study cited by Dr. Katz, which relied on data from 1994, does not reflect the current MVPD marketplace.[1182] We also find that certain estimates are based on assumptions that are not fully explained or verified. For example. Dr. Katz attributes all of Charter's set-top-box increases to programming cost increases without analysis or documentation. Further, Dr. Katz states that Charter dropped networks from its packages to lessen the effect of rising programming costs but did not provide any information on which channels were dropped, how much they cost, or whether these were less valuable networks for which Charter did not pay per sub fees.

342. We disagree with Dr. Katz that the pass through rate should necessarily be the same for an increase in programming payments and a reduction in programming payments. Firms may choose to not fully pass on cost increases to their customers for various reasons, just as they may not fully pass on

[1176] Charter Oct. 23, 2015, Updated Response to Information Request, Attach. E. The anonymized data submitted reflects all networks that at least 90 percent of expanded video subscribers for both Charter and Time Warner Cable. The Applicants submitted the data for 36 networks according to the template and instructions for Attach. E. *Id*.

[1177] *See* Appendix C, Section III.B, Figures 20-21 & Table 28.

[1178] For the average across the time period, Charter's programming payments are higher for **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** of the 36 networks. For the weighted average across the time period, Charter's programming payments are higher for **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** of the 36 networks. *See* Appendix C, Section III.B., Table 28.

[1179] *See* Appendix C, Section III.B., Figure 20.

[1180] Two networks were excluded from our calculations because they were not carried by both Charter and Time Warner Cable **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[1181] For the simple average, approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of the networks had an increase ratio of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent for the weighted average. Further, there are two networks with an increased ratio between the two time periods of over **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. *See* Appendix C, Section III.B., Table 28.

[1182] In 1994, DBS was not a significant competitor and telephone companies were not providing video services. *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Third Annual Report, 12 FCC Rcd 4358, 4376-81, 4395-96, paras. 36-41, 68-69 (1997). Moreover, Ford and Jackson focused on the basic tier only. Ford and Jackson (1997) at 507.

cost decreases.[1183] There is no evidence in the record that price increases and price decreases are passed on equally in the provision of MVPD services. Given possible asymmetries in the pass-through of programming payment increases or reductions, we place little weight on the magnitude of Charter's pass-through of retransmission and other content cost increases as an estimate of the transaction's pass-through of programming payment reductions.

343. We disagree with INCOMPAS that Charter could achieve these programming payment reductions without the transaction. While Time Warner Cable's negotiations with programmers do include distribution to Bright House, the relationship between only two MVPDs, one large and one small, is very different than the cooperative envisioned by INCOMPAS. Moreover, there is no evidence in the record that wide disparities in interests between MVPDs described by Dr. Katz that were present in 2009—including disparities in business models, cost structures, network configurations, operational strategies, and "corporate personalities"—are no longer present.

344. Nor do we conclude that INCOMPAS's proposed buying cooperative to be appropriate relief here. Even assuming that programmers would agree to negotiate with such a buying cooperative, INCOMPAS's proposal would raise substantial antitrust issues because New Charter would be negotiating on behalf of its direct competitors for a major input into their MVPD services. Although the negotiations might lead to lower costs for the competitors, it could also prevent them from competing against Charter by offering different channel line ups or video packages (e.g., slim bundles). Finally, the Commission has not previously required applicants to share the benefits of their transaction with their competitors. For all of these reasons, we decline to impose the condition sought by INCOMPAS.

345. Finally, we disagree with those commenters who argue that the reductions in programming payments New Charter would likely achieve constitute public interest harms and find no evidence in the record to support their assertions. In particular, as discussed above, we do not find credible that the programming payment reductions would result in other MVPDs paying more for acquiring programming. We conclude that the transaction does not make it more likely that the Applicants would engage, as some commenters allege, in a strategy of passing through programming payment reductions to selective markets for the purpose of harming competition or that New Charter is more likely to engage in predatory pricing.[1184] Finally, we do not find it credible that programmers would materially reduce their investment in the quality or quantity of programming because the cost reductions represent a minimal proportion of programmer revenues.[1185]

346. For the reasons stated above, we find that New Charter would be likely to achieve cost savings from a reduction in its programming costs, and we find that it is likely that a portion of the

[1183] Both in this and the AT&T/DIRECTV transactions, pass-through from programming payments is less than 100 percent. *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9178-79, para. 123; *supra* para. 341. The economic literature has found for some industries that price increases are passed on faster than price decreases and vice versa. *See, e.g.*, Sam Peltzman, *Prices Rise Faster than They Fall*, 108 Journal of Political Economy 466, 466-502 (2000).

[1184] Predatory pricing occurs when a firm first lowers its price to drive its rivals out of the market as well as to deter entry, and then raises its price once its rivals exit the market in order to recoup its losses. Generally, for a pricing strategy to be considered "predatory," the price must be below some measure of the firm's costs. *See Cargill, Inc. v. Monfort of Colorado, Inc.*, 479 U.S. 104, 117 (1986); *see also Brooke Group Ltd. V. Brown & Williamson Tobacco Co.*, 509 U.S. 209, 222-24 (1993); ABA Section of Antitrust Law, Antitrust Law Developments (6th ed. 2007) at 272, 274-81. Hawaiian Telcom argues that New Charter would use its programming payment pass-through to lower prices but it does not allege that New Charter would be pricing below costs. Hawaiian Telcom Comments at 19-20. Based on a review of the record, we do not find that New Charter is likely to price below its own costs. Pricing aggressively is often the essence of competition and pricing below a competitor's costs generally does not violate the antitrust laws or the public interest. *See Matsushita Electric Industrial Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986); *Brooke Group*, 509 U.S. at 223.

[1185] *See supra* Section V.G.5.

programming payment reductions would be passed through to consumers, but at a rate less than that estimated by Dr. Katz. As the Commission has found previously,[1186] to the extent a change in video programming costs of this nature is a transfer of surplus between video programmers and video distributors, it generally is not a public interest benefit.[1187] Therefore, we credit only the portion of programming payment reductions that are passed onto consumers as a benefit of the transaction.

C. Conversion of Time Warner Cable and Bright House to All-Digital Service, and Related Increased Residential Broadband Speeds and Improved Video Services

347. The Applicants state that, as a benefit of the transaction, New Charter would transition the Time Warner Cable and Bright House cable systems to all-digital within 30 months after the close of the transaction.[1188] New Charter also commits to extending Charter's Internet speeds and pricing plans to those territories as their systems there are converted to all-digital.[1189] Subscribers to the Time Warner Cable and Bright House systems that are already all-digital at the time of closing of the proposed transaction would be offered Charter's speeds and pricing plans within one year.[1190] The Applicants contend that the conversion to an all-digital network across the entire New Charter footprint would free up spectrum that would then be available to upgrade broadband speeds.[1191] As systems are converted to all-digital, New Charter commits to deploying Spectrum Guide, Charter's cloud-based user interface system; Worldbox, Charter's IP-enabled set-top box;[1192] and an advanced mobile video application that should be available in those areas.[1193] The Applicants further contend that an increase in HD and VOD offerings would come as a result of the all-digital transition.[1194] Upon a review of the record, and for reasons further discussed below, we ascribe minimal weight to the claimed benefits associated with the proposed conversion to all-digital and the proposed increase of high definition and VOD offerings. Although we agree that the transaction may hasten the conversion, the Applicants have not met their burden of showing the magnitude of this benefit. Moreover, because we find that the Applicants have not demonstrated that the proposed broadband speed increases are transaction-specific, we do not find that they represent a cognizable public interest benefit of the transaction.

1. Conversion to an All-Digital Network

348. *Positions of the Parties.* Although Time Warner Cable and Bright House are upgrading their systems from analog to digital, they have not yet completed their conversion. The Applicants claim that New Charter would transition these remaining systems to an all-digital network faster than Time

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[1186] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9131, para. 291.

[1187] *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20637, para. 211.

[1188] Application at 19, 21-22, 24-25; Winfrey Decl. at paras. 12, 43; Opposition at 6, 23; Charter Response to Information Request at 294; Claimed Benefits White Paper at 8-9. The Application notes that "systems serving fewer than 1 percent of homes may not be taken all-digital due to the challenges in interconnecting to the remaining New Charter network." Application at 19 n.41; Charter Response to Information Request at 294.

[1189] Charter's lowest current broadband speed tier is 60 Mbps, which it claims to offer at a lower price than other providers. Application at 19-20, 22; Winfrey Decl. at paras. 8, 44; Charter Response to Information Request at 294.

[1190] Application at 19, 21-22; Winfrey Decl. at paras. 8, 44; Charter Response to Information Request at 293 n.200.

[1191] Application at 24.

[1192] *Id.* at 25-27; Charter Response to Information Request at 295; Winfrey Decl. at para. 13; *see also* Claimed Benefits White Paper at 14, 16.

[1193] Charter Response to Information Request at 294.

[1194] Application at 3, 10, 19; Winfrey Decl. at para. 43; Opposition at 23; Claimed Benefits White Paper at 9; *see also* Charter Response to Information Request at 305-306.

Warner Cable and Bright House would have done.[1195] New Charter intends to upgrade **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of Time Warner Cable and Bright House's non-digital customers within **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1196] The Applicants argue that the effort to convert the Time Warner Cable and Bright House networks to all-digital would "expedite the offering of advanced technology, benefitting both Time Warner Cable's and Bright House's existing subscribers, and facilitating competition within their markets."[1197]

349. The Applicants state that Bright House is all-digital in **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of its footprint,[1198] and **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1199] The Applicants add that **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1200] The Applicants also note that while Time Warner Cable plans to convert 75 percent of its footprint to all-digital this year under its TWC Maxx initiative, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1201]

350. Some commenters agree that the commitment to convert the acquired systems to all-digital is a benefit of the transaction.[1202] Other commenters, however, argue that the digital conversion would occur without the proposed transaction.[1203] For example, Free Press argues that "given the existing market trajectory and declining costs coupled with higher-revenue opportunities, it is highly likely that [Time Warner Cable] would upgrade its remaining systems soon [after completing the upgrade to 75 percent of its systems]."[1204] DISH characterizes the Applicants' commitments as "unremarkable."[1205] It

[1195] Application at 24-25; Claimed Benefits White Paper at 8-9.

[1196] Claimed Benefits White Paper at 7-8.

[1197] Application at 24-25; Winfrey Decl. at para. 12; Charter Response to Information Request at 294.

[1198] Application at 24.

[1199] Claimed Benefits White Paper at 8 n.16.

[1200] *Id.*

[1201] Application at 24 n.62; Time Warner Cable Response to Information Request at 142-43. Time Warner Cable has **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. Time Warner Cable Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Nov. 19, 2015) (Time Warner Cable Nov. 19, 2015, Updated Response to Information Request).

[1202] Free State Comments at 12; TheBlaze Comments at 2-3. Likewise, ARRIS Group, Inc. contends that Charter's plan to invest in an all-digital system in Time Warner Cable and Bright House footprints would benefit customers by allowing analog bandwidth to be reclaimed "for more HD channels, more VOD offerings, and other advanced video services." ARRIS Comments at 1-2.

[1203] WGAW Petition at 40-41; Stop the Cap Comments at 3, 5, 7, 12-13. Maui County Community Television, Inc. asks, among other things, that Charter commit to upgrading the systems in Maui, Molokai, and Lanai. Maui County Community Television, Inc. Reply at 3.

[1204] Free Press Reply at 21; *see also* MFRConsulting Reply at 23 (arguing that Time Warner Cable's decision not to make the investments necessary to more rapidly transition its systems to an all-digital network is not related to its lack of scale).

argues that Time Warner Cable planned to make these upgrades absent the transaction,[1206] pointing to documents in the record for support.[1207] Specifically, DISH disputes that Time Warner Cable **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1208] DISH also argues that Bright House's all-digital plans are underway and suggests that the proposed transaction may actually delay those plans.[1209]

351. Time Warner Cable responds that DISH's allegations that it planned to **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** are untrue as they rely on documents that are taken out context and do not reflect Time Warner Cable's decision-making processes.[1210] The documents, according to Time Warner Cable, are merely drafts or labeled "illustrative." It contends DISH fails to note that Time Warner Cable's planning process involves beginning with an aggressive budgetary plan that would likely be "ratcheted back" as competing projects are prioritized. Accordingly, the documents on which DISH relies are merely "notional" and do not reflect definitive plans for a 100 percent conversion of its systems.[1211] Time Warner argues that it always intended TWC Maxx to be a three-year plan to reach 75 percent of its footprint by the end of 2016.[1212]

(Continued from previous page)

[1205] DISH Petition at 34.

[1206] Letter from Pantelis Michalopoulos and Stephanie A. Roy, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 4 (filed Jan. 4, 2016) (DISH Jan. 4, 2016, *Ex Parte* Letter).

[1207] DISH Reply at 24-25. DISH argues that multiple Time Warner Cable documents indicate that absent the planned merger, Time Warner Cable would upgrade its remaining footprint by **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. DISH Reply at 25 n.81 (citing TWCable-FCC-000006594, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**); *see also* DISH Jan. 4, 2016, *Ex Parte* Letter at 1-5.

[1208] DISH Jan. 4, 2016, *Ex Parte* Letter at 3 (citing Time Warner Cable Nov. 19, 2015, Updated Response to Information Request at 2). DISH relies on multiple Time Warner Cable documents, including TWCable-DOJ-000016902 at 8, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**; TWCable-DOJ-000161698 at 3, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[1209] Letter from Andrew M. Golodny, Counsel for DISH, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-3 (filed Nov. 30, 2015) (DISH Nov. 30, 2015, *Ex Parte* Letter). DISH contends that Bright House planned its all-digital conversion **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. *Id*. at 2 (citing BHN-000597597, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**). DISH adds that Bright House plans to spend **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. *Id.* at 2 (citing BHN-000328545 at 3, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**).

[1210] Letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Jan. 15, 2016) (Time Warner Cable Jan. 15, 2016, *Ex Parte* Letter).

[1211] *Id.* at 2-5.

[1212] *Id.* at 2-3. As discussed in paragraph 349, *supra*, Time Warner Cable has stated that **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

352. *Discussion.* We find that both Time Warner Cable and Bright House have been continuing to upgrade their systems to an all-digital network. While the transaction may hasten the all-digital upgrades of Time Warner Cable and Bright House's systems, the Applicants have not quantified the value of all-digital upgrades in a manner that would allow us to compare them to what would likely occur absent the transaction. We therefore ascribe minimal weight to this benefit.

353. Although we find that the Applicants have failed to quantify this claimed benefit, we also find unpersuasive DISH's argument that the upgrade to all-digital systems would occur at the same pace without the transaction. We do not find that the Time Warner Cable documents cited by DISH **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. For example, the same document which DISH contends shows that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1213]

354. Similarly, the Bright House document DISH cites indicates that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1214] While there is some evidence that suggests that Bright House **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1215]

355. On the other hand, the Applicants have not demonstrated a structural impediment preventing Time Warner Cable and Bright House from making future upgrades nor that these companies would lack the incentive, ability, or competitive pressure to do so. It is understandable that in the context of the pending transaction **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. We agree that the transaction likely will bring these all-digital upgrades and the corresponding benefits at a somewhat faster pace than Time Warner Cable and Bright House would otherwise do on their own. Therefore, we recognize that the transaction likely provides a benefit with respect to the complete digitization of the acquired systems. This potential benefit is difficult to quantify, however, because the Applicants have failed to show the extent to which New Charter's upgrading the acquired systems would outpace Time Warner Cable and Bright House's likely efforts in the absence of the proposed transaction.

[1213] *See* DISH Jan. 4, 2016, *Ex Parte* Letter at 3 (citing TWCable-FCC-000006604, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]).

[1214] DISH Nov. 30, 2015, *Ex Parte* Letter at 2 (citing BHN-000597597, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]).

[1215] BHN-000938913, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

2. Residential BIAS Speed Upgrades

356. In this section, we evaluate the Applicants' claims that as a result of the transaction, New Charter would have an increased incentive to incur larger fixed cost investments to increase broadband speeds.[1216] We agree that some measure of additional investment in broadband infrastructure may result from the Applicants' commitment to offer plans with minimum download speeds of 60 Mbps throughout New Charter's footprint. However, Applicants have not met their burden in demonstrating that the investments necessary to increase minimum download speeds to 60 Mbps are verifiable and quantitatively significant. Applicants have not established that the proposed speed improvements are transaction-specific. We are thus unable to find a cognizable public interest benefit with respect to investments leading to broadband speed upgrades.

357. *Positions of the Parties.* The Applicants claim that Charter is committed to being the Internet "speed leader"[1217] and that as a consequence of New Charter's increased scale, it would have an increased incentive to incur larger fixed cost investments because those costs would be spread among a larger pool of subscribers, and thus the per-subscriber cost of such investments would be lower.[1218] The Applicants argue that increased investments in fiber, software, and hardware would increase New Charter's broadband speeds,[1219] and that such investments could not have been made by the stand-alone entities.[1220] The Applicants further state that Charter's "expertise, experience, and commitment to offering consumers higher standard speed broadband" would "'expedite' the offering of advanced technology" within its network.[1221]

358. The Applicants argue that the transition to an all-digital system discussed in the previous section would allow New Charter to free up spectrum for broadband, enabling base speed tiers of 60 or 100 Mbps throughout the New Charter's footprint within 30 months of closing.[1222] Charter states that it is evaluating a number of avenues to achieve these broadband speeds, including **[BEGIN HIGHLY CONF. INFO.]**

[1216] Scott Morton Decl. at paras. 8-10; Application at 24-25.

[1217] Charter Response to Information Request at 7.

[1218] Scott Morton Decl. at paras. 8-10.

[1219] *Id.* at para. 24.

[1220] *Id.* at para. 10.

[1221] Application at 24-25 (citing *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group, Inc., Transferor, to AT&T Corp., Transferee*, Memorandum Opinion and Order, 15 FCC Rcd 9816, 9887-88, para. 166 (2000) (*AT&T-MediaOne Order*)).

[1222] Application at 21-22, 24; Claimed Benefits White Paper at 10. The Applicants speculate that speed upgrades would bring consumer benefits of $1.15 billion per year based on a $22 per month consumer surplus drawn from an academic paper on UBP. Claimed Benefits White Paper at 10-11 (citing Aviv Nevo, John L. Turner, and Johnathan W. Williams, "Usage-Based Pricing and Demand for Residential Broadband," at Table 7, Working Paper (October 2015) forthcoming in *Econometica*). The Applicants' figure assumes speed increases from 25 Mbps to 50 Mbps at the same prices for existing Time Warner Cable and Bright House customers. *Id.* at 11 n.22. We do not credit this claimed benefit, however, for three reasons. First, the cited paper does not purport to evaluate the consumer surplus resulting from speed upgrades for the Applicants. Second, the Applicants' subscriber input is overinclusive, as it assumes that every existing all-digital customer with Time Warner Cable and Bright House would receive a speed upgrade within twelve months. Claimed Benefits White Paper at 11 n.22. However, Applicants claim that existing subscribers would only be *offered* the new minimum 60 Mbps plan, and they offer no predictions as to how many would take the new plan. *See* Residential Pricing and Packaging White Paper at 4. Third, the Applicants do not claim that pricing on New Charter's 60 Mbps plan will be the same as existing sub-60 Mbps plans, as assumed by the paper's model, and have not otherwise quantified the surplus which would accrue to New Charter or its customers as a result of the new plan offerings. *See infra* Section VI.D.

[END HIGHLY CONF. INFO.].[1223] The Applicants state that New Charter would continue to deploy Time Warner Cable's 300 Mbps TWC Maxx service in certain areas in accord with existing plans.[1224] Time Warner Cable states that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1225] Time Warner Cable also states that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1226] The Applicants argue that high-speed offerings from their wireline BIAS competitors would "put pressure on New Charter to perform" with respect to speed increases.[1227]

359. The Competitive Enterprise Institute (CEI), The International Center for Law & Economics (ICLE), and TechFreedom, in joint comments, argue that the transaction would allow New Charter to offer at least 60 Mbps or 100 Mbps downstream to over 99 percent of the households it serves, and that therefore, "many of the 11.7 million Americans who subscribe to [Time Warner Cable's] broadband service will enjoy faster Internet access at lower prices."[1228] They contend that broadband improvements might occur more slowly for many consumers if the transaction is not approved because larger firms like New Charter are better positioned to make costly long term investments.[1229]

360. DISH argues that the Applicants' proposal to offer minimum 60 Mbps download speeds within three years of closing is "probably less ambitious than what [Time Warner Cable] has planned to achieve by itself without the merger."[1230] DISH further argues that Charter's offer to bring base speed tiers from 15 Mbps to 60 or 100 Mbps is not a benefit because both Time Warner Cable and Bright House already offer speeds in excess of 60 Mbps, and they could increase base speed to 60 Mbps without the proposed transaction.[1231] Additionally, DISH states that implementing a base speed tier of 60 Mbps is not

[1223] Charter Response to Information Request at 7.

[1224] Application at 21; Winfrey Decl. at para.11. Time Warner states that it has "increased Internet data speeds eleven times" between July 24, 2013 and July 24, 2015, not including speed increases associated with the Maxx program. Time Warner Cable Response to Information Request at 13.

[1225] Time Warner Cable Updated Response to Sept. 21, 2015, Information Request, transmitted by letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Nov. 9, 2015). Time Warner states that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *Id.* Internal documents cited by Time Warner Cable demonstrate that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Time Warner Cable Updated Response to Sept. 21, 2015, Information Request, Exh. 73-01 **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** at 1.

[1226] Time Warner Cable Response to Information Request at 8.

[1227] Application at 23-24. The Applicants cite selected offerings from CenturyLink, AT&T, and Verizon FiOS as evidence of a "virtuous cycle of competition that has been pushing broadband speeds up across the board." *Id.*

[1228] Competitive Enterprise Institute, International Center for Law & Economics, and TechFreedom Comments at 2 (CEI et al. Comments).

[1229] *Id.* at 3 (arguing that as a result of the transaction, New Charter would be able to spread its fixed costs across a larger customer base, thereby accelerating broadband speed upgrades).

[1230] DISH Petition at 5-6; *see also* WGAW Petition at 40-41.

[1231] DISH Petition at 35.

a benefit to the public because the plan upgrade precludes subscribers from purchasing slower, less expensive broadband plans that may more precisely fit their desired price and speed.[1232]

361. *Discussion.* We find that the Applicants have not met their burden of demonstrating that the transaction would likely lead to increased broadband speeds in the Time Warner Cable and Bright House networks. The Applicants do not quantify what investments would be necessary to reach this level of deployment—or that these speed upgrades are necessarily tied to the all-digital upgrade.[1233] Charter has stated that New Charter would consider **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.], but does not offer details on how these strategies differ from Time Warner Cable's existing investment plans. The record reveals that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1235] The Applicants do not explain why Bright House and Time Warner Cable lack the scale to undertake the fixed cost capital investments needed to upgrade their BIAS speeds. Nor do they specify why the existing competitive landscape faced by Bright House and Time Warner provide insufficient incentive to undertake the speed upgrades promised in the Application. Though the record does not establish that Time Warner Cable or Bright House otherwise has plans to establish 60 Mbps speed minimums throughout their service areas, the Applicants have not identified any impediments to Time Warner Cable and Bright House implementing similar upgrades absent the proposed transaction.

3. Improved Video Benefits

362. The Applicants contend that an increase in HD and VOD offerings would come as a result of the all-digital transition in Time Warner Cable's and Bright House's systems.[1236] The Applicants add that new Charter would also build on the strengths of all three companies by offering Charter's Spectrum Guide, Worldbox CPE, and an integrated video mobile application that would include the best features from each company.[1237] New Charter also plans on deploying two-way boxes on each incremental residential outlet instead of using one-way digital terminal adapters. While this approach

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[1232] DISH Reply at 25-26.

[1233] *Cf.* BHN-000597597, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1234] *See, e.g.*, Time Warner Cable Response to Information Request at 8 **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1235] *See supra* Section VI.C.1. As discussed above, Time Warner Cable **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Time Warner Cable Response to Information Request, Exh. 3i-03 at 2. In non-TWC Maxx markets, Time Warner Cable **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *Id.*

[1236] Application at 3, 10; Opposition at 23; Claimed Benefits White Paper at 9. Application at 19; Winfrey Decl. at para. 43; Opposition at 23; Claimed Benefits White Paper at 9; *see also* Charter Response to Information Request at 305-306.

[1237] Application at 25-26. The claimed benefits associated with Spectrum Guide, Worldbox and the proposed integrated video application are discussed *infra* in Sections VI.H and VI.I.

may cost more, Charter argues that this approach would provide its customers with "a more robust video product offering."[1238] We received few comments regarding these claims.[1239]

363. *Discussion.* The Commission has recognized that the deployment of improved video services is a recognized public interest benefit.[1240] Here, however, the Applicants have failed to quantify the extent of this benefit and we find that it is minimal. Evidence in the record shows that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1241] Therefore, any benefit from the increase in VOD offering would appear to apply only to **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF INFO.]**. While the evidence also indicates that New Charter would provide customers with **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**, there is no indication that it is due to the transaction. Accordingly, we ascribe no weight to these claimed benefits.

D. Uniform Broadband Pricing and Marketing

364. We now evaluate the Applicants' claim that the adoption of Charter's broadband pricing and marketing practices throughout New Charter's footprint constitutes a public interest benefit. We acknowledge that post-transaction some Time Warner Cable and Bright House customers may receive offers for faster broadband service at lower prices. However, the Applicants have not quantified post-transaction customer cost savings or specified the period of time that Charter's current packages will be offered. Therefore, we credit only a minimal public interest benefit with respect to the Applicants' proposed uniform pricing and marketing commitments.

365. *Positions of the Parties.* The Applicants have committed to market broadband services consistent with Charter's current packaging and pricing strategies within 12 months of closing in existing Time Warner Cable and Bright House all-digital service areas.[1242] The Applicants claim that Charter's broadband offerings are less expensive for consumers than comparable offerings from Time Warner Cable and Bright House.[1243]

[1238] Charter Response to Information Request at 305.

[1239] Stop the Cap argues that the transaction would result in an all-digital video option for Time Warner Cable customers that currently can watch analog channels without the use of a set-top box, which would result in additional costs for the customers. Stop the Cap Comments at 13.

[1240] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9246-9247, para. 301; *Adelphia-TWC Order*, 21 FCC Rcd at 8312, para. 256; *AT&T-MediaOne Order*, 15 FCC Rcd 9816, 9886, para.160.

[1241] CHR2-DOJ-00000066980 at 2, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See also* CHR2-FCC-00000048793 at 10-11, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1242] Application at 19-20. In service areas where Time Warner Cable and Bright House's networks are not yet all-digital, New Charter commits to making the same offers available once the systems are converted to all-digital, with full conversion to be completed within 30 months of closing. *Id*. The Applicants state that, due to the challenges in interconnecting to the remaining New Charter network, a portion (less than 1%) of New Charter that is not interconnected to the New Charter network may not be taken all-digital and would be offered lower speeds. *Id.* at 3 nn.3-4.

[1243] *Id.* at 2-3.

366. Some commenters deny that the Applicants' uniform broadband pricing and marketing commitment is a benefit of the transaction.[1244] For example, DISH argues that Charter's nationwide standalone broadband pricing is not less expensive than existing Time Warner Cable offerings.[1245] DISH observes that Charter's least expensive broadband—its 60 Mbps tier—initially costs $39.99 per month, but increases incrementally to $59.99 per month over two years of service,[1246] while Time Warner Cable's plans in TWC Maxx areas have introductory rates for 100 Mbps service for $44.99 per month, 50 Mbps service for $34.99 per month, 10 Mbps service for $29.00 per month, and 3 Mbps service for $14.99 per month.[1247] DISH concludes that post-transaction, Time Warner Cable customers would end up paying either approximately the same price for a slower service, or a higher price for a speed that they may not require.[1248] Additionally, some commenters claim that the loss of Time Warner Cable's "Everyday Low Price (ELP)" BIAS tier at $14.99 per month for 2 Mbps downstream/1 Mbps upstream service is contrary to the public interest.[1249] They generally argue that post-transaction, Time Warner Cable's more affordable broadband options would be eliminated, to the detriment of low-income and senior consumers.[1250] Some commenters urge the Commission to require New Charter to price and offer services uniformly through each DMA so that it cannot use discriminatory pricing to stifle competition where it faces a terrestrial competitor.[1251]

367. The Applicants respond that having nationally uniform pricing and packaging for each tier of service and bundles of services "promotes efficient operations and marketing of services throughout Charter's footprint."[1252] Specifically, the Applicants claim that the benefits include: "[b]road consistent knowledge of our services and prices across all employees; sales and support representatives need master only one set of packages and pricing to service customers nationwide; billing is more simple with fewer variations; and economies of scale in marketing and advertising tactics."[1253] Charter also notes that it has some flexibility to offer specific promotions, resulting in favorable pricing both locally and

[1244] *See, e.g.*, DISH Reply at 14-15, 25-26; Stop the Cap Comments at 7 ("Charter's upgrade proposal is, in fact, generally inferior to what Time Warner Cable is accomplishing on its own. We strongly recommend the Commission carefully consider whether Charter's proposal is as truly compelling as they claim.").

[1245] DISH Reply at 14 (arguing that for Time Warner Cable and Bright House customers who migrate to the new plans, "the price of New Charter's new minimum speed is clearly likely to be higher than the price of the old minimum speed").

[1246] *Id.*

[1247] *Id.*

[1248] *Id.* at 26 (citing to Time Warner Cable, *High-Speed Internet Plans and Packages*, http://www.timewarnercable.com/en/plans-packages/internet/internet-service-plans.html (last visited Nov. 10, 2015)).

[1249] DISH Reply at 14-15; *see also* WGAW Petition at 37-38; Stop the Cap Comments at 7 ("Charter has no plans to continue Time Warner Cable's $14.99 Everyday Low Price Internet service—a very important offer for low income residents and senior citizens who are unable to afford the nearly $60 regular price both companies charge for their 50 or 60 Mbps tiers. Time Warner Cable offers this $14.99 tier without preconditions, restricted qualifiers, contracts, or limits on what types of services can be bundled with it.").

[1250] *See, e.g.*, Stop the Cap Comments at 7.

[1251] Cincinnati Bell Comments at 18-19; *see also* Hawaiian Telcom Comments at 19-20.

[1252] Residential Pricing and Packaging White Paper at 2.

[1253] *Id.* Charter claims that extending its pricing and packaging methodology to New Charter would result in such public interest benefits as "[Time Warner Cable] and [Bright House] subscribers will enjoy simplified monthly prices and will remain free from contracts which can result in early termination fees or usage-based billing." *Id.* at 3.

nationwide.[1254] At the end of any promotional period, Charter claims that New Charter's promotional pricing would gradually transition to its national uniform retail rates.[1255] Further, Charter has committed that New Charter would not force existing Time Warner Cable and Bright House customers to change their current service and pricing plans post-transaction.[1256]

368. *Discussion.* We acknowledge that Charter's prices generally appear lower than the prices offered by the other Applicants for comparable services. But, the Applicants have not attempted to quantify the benefits which would accrue to the public from extending Charter's pricing and packages or committed to offering these packages for a definite period of time, so, we ascribe minimal weight to this claimed benefit.

369. As we discuss above, New Charter's proposed standalone broadband tier of 60 Mbps downstream for $39.99 per month is one of the industry's lower introductory standalone broadband offers in the market for its speed level.[1257] We disagree with DISH's characterization that Charter's prices for standalone service are higher than Time Warner Cable's prices.[1258] DISH's direct comparison between a single Time Warner Cable market and Charter's broadband offerings does not demonstrate that Charter's nationwide prices are higher. Charter's introductory standalone broadband offering is both cheaper and faster than the introductory price Time Warner Cable appears to offer in most areas for its comparable offerings.[1259] Similarly, Bright House's introductory broadband prices appear higher than Charter's introductory price for its 60 Mbps service.[1260]

[1254] *Id.* at 2 ("For example, Charter offers introductory promotions for stand-alone broadband and video as well as bundled triple and double play offerings.").

[1255] *Id.*

[1256] *Id.* at 4.

[1257] *See supra* paras. 90-91; CHR2-FCC-00000002925, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *See also* Charter, *Combined TV, Internet & Phone for the Best Deal*, https://www.charter.com/browse/content/packages (last visited Feb. 17, 2016).

[1258] *See* DISH Reply at 26 (citing to Time Warner Cable, *High-Speed Internet Plans and Packages*, http://www.timewarnercable.com/en/plans-packages/internet/internet-service-plans.html (last visited Nov. 10, 2015)).

[1259] Time Warner Cable's introductory standalone broadband prices are $64.99 per month for 50 Mbps service, $54.99 per month for 30 Mbps service, $44.99 per month for 20 Mbps service, $34.99 per month for 15 Mbps service, $29.99 per month for 6 Mbps service, and $14.99 per month for 2 Mbps service. *See* Time Warner Cable, *High-Speed Internet Plans and Packages*, http://www.timewarnercable.com/en/plans-packages/internet/internet-service-plans html (last visited Feb. 17, 2016). Some Time Warner Cable and Bright House customers may realize additional savings when modem fees are taken into account. Charter does not charge an additional fee for modem rental. Application at 3, 22. Time Warner Cable charges subscribers an additional $10 per month for a standard modem. Time Warner Cable, *What Price Will I Be Charged to Lease a Modem from TWC/EarthLink?*, http://www.timewarnercable.com/en/support/faqs/faqs-internet/modem-info/internetmodemlease/what-price-will-i-be-charged.html (last visited Feb. 17, 2016). Bright House charges its subscribers **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** per month for a standard modem. Charter Response to Information Request, Exhibit 87-3. Modem fees are significant because, as noted by Rob Marcus, Time Warner Cable's Chairman and CEO, as of only 12% of its customers purchase and use their own modems as of Q2 2015, which implies that 88% of Time Warner Cable's Internet customers pay a modem rental fee. *See* Time Warner Cable (TWC) Earnings Report: Q2 2015 Conference Call Transcript (Jul. 30, 2015), http://www.thestreet.com/story/13239330/1/.

[1260] *See* Bright House, *Offers*, http://brighthouse.com/shop/internet.html (last visited Feb. 17, 2016). Bright House has five tiers of broadband service at the following 12-month introductory prices: $202 per month for 300 Mbps downstream (only available in Florida); $107 per month for 200 Mbps service; $92 per month for 100 Mbps service; $77 per month for 50 Mbps service; and $57 per month for 25 Mbps service. *Id.*

370. Time Warner Cable and Bright House customers who migrate to New Charter's post-transaction offerings based on Charter's current packages may enjoy some price reductions for their broadband services. A comparison of Charter's prices for bundles including broadband service suggests that Charter's introductory and rack rate bundle prices are generally lower than Time Warner Cable's rates.[1261] For example, Charter's introductory price for its 60 Mbps broadband service bundled with video service is $79.98 per month.[1262] Time Warner Cable's introductory price for its bundle of a slower 15 Mbps broadband service with video is more expensive at $89.99 per month.[1263] Bright House offers a bundle including 25 Mbps broadband and video service for an introductory price of $79 per month, which, though approximately the same price, has a significantly slower broadband service than is included in Charter's bundle.[1264] Charter's rack rate prices—the equivalent of an MSRP for communications services—also tend to be lower than Time Warner Cable's and Bright House's rack rates.[1265] Therefore, we find that some Time Warner Cable and Bright House consumers may benefit should they transfer to Charter's pricing structure.[1266]

371. Nevertheless, the Applicants leave some objections raised by commenters unanswered. For example, the Applicants do not respond to DISH's claims that the elimination of lower speed tiers has the potential to harm some classes of consumers for which 60 Mbps download speeds are in excess of what they require. Also, the Applicants have not quantified the expected savings Time Warner Cable and Bright House customers would experience should they migrate to the new Charter-based offerings post-transaction. Without a verifiable metric to determine the alleged savings, we are unable to evaluate the extent of the benefit. There is also no indication in the record for how long the Applicants intend to maintain the pricing and speed characteristics of Charter's current offerings.[1267]

372. Absent more detailed showings on the quantity of consumer savings and a commitment to offer Charter's existing broadband packages for a definite period of time, we are unable to determine the magnitude of any public interest benefit. Further, the Applicants have not demonstrated that the post-closing competitive environment is likely to induce New Charter to maintain its current packaging and pricing strategies across New Charter's footprint, and therefore, the actual value of such packaging and pricing strategies remains uncertain. Moreover, we find value in Charter's ability to set its own pricing policy, and reject commenters' request to adopt this specific pricing policy as a condition to the transaction. Accordingly, we ascribe minimal weight to the claimed benefit, recognizing both positive and mitigating factors.

[1261] *See, e.g.*, CHR2-FCC-00000002925 at 11 **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1262] Charter, *Combined TV, Internet & Phone for the Best Deal*, https://www.charter.com/browse/content/packages (last visited Feb. 17, 2016).

[1263] Time Warner Cable, *TV, Internet & Phone Plans*, http://www.timewarnercable.com/en/plans-packages/cable-internet.html?cic721 (last visited Feb. 17, 2016).

[1264] Bright House, *Offers*, https://shop.brighthouse.com/web/guest/home (last visited Feb. 17, 2016).

[1265] *See* CHR2-FCC-00000002925 at 11 **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1266] *See* Residential Pricing and Packaging White Paper at 3.

[1267] *See id.* at 3-4. Because the Commission has forborne from its price regulation authority as to BIAS, we consider only voluntary pricing commitments. *See 2015 Open Internet Order*, 30 FCC Rcd 5601, 5841-45, paras. 497-505.

E. Increased Competition to Serve Commercial Customers

373. We find that the proposed transaction would likely benefit competition by enabling New Charter to provide service through a single network to business customers that have locations across the standalone service areas of each Applicant. We also find that the transaction would likely increase competition for certain business customers by reducing "double marginalization" and that increased sales opportunities might lead New Charter to increase investment in commercial and enterprise network facilities. The Applicants, however, have provided insufficient evidence to quantify the purported benefits.

374. *Positions of the Parties.* Time Warner Cable, Charter and Bright House provide commercial Internet, voice, Ethernet, backhaul and varied managed, hosting and cloud computing services to their business services customers.[1268] The Applicants claim that the proposed transaction would increase enterprise services competition in several ways. First, they assert that the transaction would enable New Charter to provide business services via a single network, a single set of technical standards, and a single point of contact for customer support, which are valuable benefits that customers prefer.[1269] They also argue that as separate companies, they could not provide these services and compete as effectively as would New Charter.[1270] The Applicants state that in order to serve a multi-location customer, at least **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of the company's sites must be within their footprint. They estimate that after the transaction New Charter would be able to serve **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** new multi-site firms and that these firms would benefit from New Charter's promotional pricing.[1271]

375. Second, the Applicants state that the transaction would eliminate "double marginalization," which would lower the price of service to customers who had locations in the service areas of more than one of the Applicants.[1272] Third, the Applicants state that New Charter would compete more effectively against telecommunications carriers than the Applicants individually could through partnerships, due to New Charter's expanded geographic reach.[1273] Finally, in order to increase such

[1268] Time Warner Cable provides general business Internet services over hybrid-fiber coax, with speeds from 10 Mbps downstream/1 Mbps upstream to 50 Mbps downstream/5 Mbps upstream in all markets, and up to 300 Mbps downstream/20 Mbps upstream in select markets, and offers mid-sized and enterprise customers its Ethernet services, which allow customers to connect their locations and data centers across different geographic regions. Time Warner Cable Response to Information Request, Exhibit 3j-06 at 4, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. Time Warner Cable also provides managed hosting and cloud computing services through its NaviSite subsidiary, and cell tower backhaul services. Application at 11-12. Charter provides its medium-sized business customers with Ethernet, voice and fiber Internet service, with speeds of up to 10 Gbps, and in addition, offers large businesses custom fiber networks and trunking services. Charter also offers high-capacity data connectivity services to wireless and wireline carriers, ISPs, and other competitive carriers on a wholesale basis. Charter Response to Information Request at 17-18. Bright House offers video, voice, data and cloud-based services to small and medium businesses and in addition provides fiber-based telecommunication services to midmarket and carrier customers, including cloud-based hosted voice, managed security, and cell backhaul to wireless carriers. *See supra* para. 17.

[1269] Application at 35.

[1270] *Id.* at 4, 35-36; Scott Morton Decl. at para. 20.

[1271] Claimed Benefits White Paper at 1-7.

[1272] *See, e.g.*, Viscusi, W., J. Vernon and J. Harrington, Jr., *Economics of Regulation and Antitrust* 221-223 (3d ed., 2000).

[1273] Scott Morton Decl. at para. 20.

competition, the Applicants committed that New Charter will invest $2.5 billion to build out enterprise networks in areas within its footprint during the four years following the close of the transaction.[1274]

376. Some commenters agree that the proposed transaction would increase New Charter's ability to compete for enterprise customers.[1275] Granite Telecommunications Inc. (Granite), however, argues that, because Charter and Time Warner Cable's networks are often adjacent, they currently compete by expanding their networks into each other's territories to serve multi-site customers with facilities located in both of Charter and Time Warner Cable's footprints.[1276] DISH argues that opportunities exist for Charter and Time Warner Cable to overbuild into each other's territories, and that permitting the Applicants to merge would remove the potential for such expansion to occur.[1277] With respect to the Applicants' commitment to invest $2.5 billion in building out New Charter's enterprise networks, DISH argues that there is substantial evidence that most, if not all, of the claimed investment and buildout was already planned and would likely occur with or without the transaction.[1278] Both Granite and AT&T argue that New Charter would have the opportunity and incentive to collude with other cable operators, rather than compete for multi-location enterprise customers and that the transaction would facilitate further collusion.[1279]

377. *Discussion.* The Commission has previously concluded that an expanded footprint may increase a firm's ability to compete for multi-location customers for business services that have operations beyond the firm's pre-transaction service area.[1280] We agree with the Applicants that the proposed transaction would likely benefit competition for business services by enabling New Charter to provide service through a single network. Businesses that prefer a "one stop shopping" experience would find New Charter's service more attractive, and New Charter's unified technical standards would improve its operating efficiency. We also agree that the transaction would lead New Charter to charge these multi-location customers lower prices that the Applicants would be able to offer in the absence of the proposed transaction, due to the elimination of double marginalization. Finally, we agree that increased sales opportunities may likely lead New Charter to increase its deployment of commercial and enterprise network facilities. New Charter's broader reach and greater scale would likely increase the firm's incentive and ability to meet its commitment to invest $2.5 billion within four years, thereby improving New Charter's network and increasing competition.

[1274] Application at 18, 37; Winfrey Decl. at paras. 27, 37; Opposition at 3, 6, 27; Charter Response to Information Request at 330-331; Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1-2 (filed Dec. 22, 2015) (Charter Dec. 22, 2015, Commerical and Residential Buildout *Ex Parte* Letter).

[1275] According to CEI, ICLE and TechFreedom, the transaction would generate cost savings in part due to the enhanced scale of the combined entity, which would increase the return on investment in infrastructure, and create incentives for the company to spend more on building better broadband networks. CEI et al. Comments at 2-3. Free State Foundation submits that increased competition for inter-regional and nationwide enterprise broadband is one of the transaction's main benefits. Free State Comments at 2.

[1276] Granite Reply at 2-3.

[1277] DISH Petition at 58-62.

[1278] *Id.* at 34.

[1279] AT&T Comments at 1.

[1280] *See Applications Filed for the Transfer of Control of Insight Communications Company, Inc. to Time Warner Cable Inc.*, Memorandum Opinion and Order, 27 FCC Rcd 497, 508, para. 24 (WCB, IB, WTB 2012); *see also Applications Filed for the Transfer of Control of tw telecom inc. to Level 3 Communications, Inc.*, Memorandum Opinion and Order, 29 FCC Rcd 12842, 12847, para. 14 (WCB, IB 2014).

378. We find, however, that the benefits are not as large as the Applicants claim, and that they have provided insufficient evidence to verify the basis for their benefit estimates. For example, while we agree with the Applicants' assertion that the enterprise segment would benefit due to New Charter's ability to cover "disparate locations,"[1281] this appears inconsistent with the Applicants' statement that small businesses would receive the benefits and that New Charter's small and medium business products would give the firm a competitive advantage.[1282] Moreover, the combination of the Applicants' separate networks brings a benefit only for those customers that have multiple locations across those separate networks; otherwise, the transaction would have no effect on the Applicants' ability to serve those customers. While we agree that the combination of the infrastructure, skills, and investment of each firm would in principle make New Charter more efficient, we find that the Applicants have not demonstrated that these benefits would be substantial and we find it difficult to quantify such a benefit.

379. The Applicants describe the purported benefits to multi-site businesses of varying sizes, and separately, for medium-sized and enterprise-sized business, that they claim would result from the transaction.[1283] With respect to multi-site firms of varying sizes, the Applicants calculate that **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** new firms would have sufficient site coverage, i.e., at least **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of their sites covered. They state that these firms would be able to be served by New Charter and would benefit from New Charter's promotional pricing.[1284] The Applicants also estimate that those eligible medium-sized and enterprise businesses who sign up for promotional, "disruptive" pricing on unbundled enterprise fiber service with a speed of up to 100 Mbps would achieve **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per year in savings.[1285] However, the Applicants do not provide support for their estimates, neither the number of customers who would be eligible for this pricing nor the percentage that would take it.[1286] Nor do they state how long the promotional rates would remain in effect.

380. In addition, the Applicants' claimed benefits may be less in those regions where they operate in adjacent markets. For example, Charter and Time Warner Cable each operate adjacent systems in Dallas-Fort Worth, and the Applicants claim that combining their systems would allow them to compete more efficiently.[1287] However, the Applicants fail to examine the extent to which they already

[1281] Application at 4, 35; Winfrey Decl., para. 24. Time Warner Cable defines the enterprise segment as businesses with at least 500 employees.

[1282] Claimed Benefits White Paper at 2-4 (claiming that of the new customers New Charter would be able to serve post-transaction approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent have 11 to 50 employees, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent have 51 to 100 employees, and **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent have 101 to 500 employees. Applicants do not provide information on the number of employees for the remaining **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of these new multi-site businesses, nor do they indicate whether these are enterprise or small businesses). We note that while Time Warner Cable serves business customers that are significantly larger than those served by Charter or Bright House, the Applicants do not explain how the varying customer sizes affect their determination of the claimed benefits. Charter defines its "large business" customers to have "200+ employees." In 2013, Charter estimated its business opportunity in the small, medium, large, and wholesale carrier segments to be, respectively, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. Charter Response to Information Request, Exhibit 3(j)-3 at 3.

[1283] Claimed Benefits White Paper at 1-7.

[1284] *Id.* at 2, 4.

[1285] *Id.* at 4-7.

[1286] *See id.* at 4-7.

[1287] Application at 33-34.

compete with each other for enterprise customers or whether they could today profitably build into the other's territory in order to serve multi-site enterprise customers.

381. Finally, we reject arguments that the participation of cable companies (including Charter and Time Warner Cable) in partnership arrangements to serve multi-location enterprise business customers is evidence that the proposed transaction would lead to collusion.[1288] These commenters have not provided support for these allegations, including whether the cable companies, in fact, compete with each other outside their own territories. As discussed above,[1289] collusion is less likely where firms offer various services, on different terms and across different geographies.[1290] Moreover, to the extent the transaction allows New Charter to compete more effectively for commercial customers, the transaction will add vibrant new competition and output to the market and tend to undermine industry coordination.

F. Network Buildout to Residential Customers

382. The Applicants have committed to building out to one million additional customer locations within four years of closing. After evaluating the record, we do not credit the proffered residential buildout as a transaction-specific benefit, as the Applicants would likely have completed such a build absent the proposed transaction. Nevertheless, we find that the public would benefit from additional residential buildout—in unserved areas and areas served by only one high-speed provider—by New Charter. Buildout into unserved areas would provide a substantial public interest benefit by providing high-speed BIAS to otherwise unserved consumers. Overbuilding in areas served by only one firm providing high-speed BIAS will spur competition, leading to lower prices and greater choice for consumers. Therefore, as a condition to our approval of the proposed transaction, we require that New Charter build out to a total of two million new customer locations, as specified below and in Appendix B.

383. *Positions of the Parties.* The Applicants have committed to extend New Charter's wireline facilities to pass one million additional customer locations within four years of closing.[1291] The Applicants claim that the proposed transaction would enable New Charter to "more effectively make significant fixed-cost investments by spreading those investments over a larger customer base,"[1292] thereby enabling the combined entity to more aggressively build out their network than as independent companies.[1293] The Applicants contend that under normal operating procedures, they do not plan residential build several years in advance[1294] but expand their networks organically in response to market

[1288] *See* AT&T Comments at 1, 2, 5; Granite Reply at 3, 5.

[1289] *See supra* Section V.G.2.

[1290] *Cf. supra*, para. 374 & n. 1268 (describing the different business services the Applicants offer and where they offer services).

[1291] Application at 18; Winfrey Decl. at para. 38; Opposition at 3, 6; Charter Dec. 22, 2015, Commercial and Residential Buildout *Ex Parte* Letter at 1. To formulate the commitment, the Applicants estimated the number of customer locations served by each company and multiplied these estimates by the estimated growth rates that were extrapolated from growth rates between December 31, 2013 and the present. Charter Response to Information Request at 13.

[1292] Winfrey Decl. at para. 16.

[1293] Charter Dec. 22, 2015, Commercial and Residential Buildout *Ex Parte* Letter at 2. The Applicants claim that their residential buildout commitment is possible because of New Charter's improved economies of scale and increased penetration expected through New Charter's product offerings.

[1294] Charter Response to Information Request at 13. The Applicants claim that they not make budgetary decisions **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Charter Dec. 22, 2015, Commercial and Residential Buildout *Ex Parte* Letter at 2.

demand.[1295] Thus, by committing to a specific buildout figure on a fixed timeline, they claim that their proffered commitment constitutes a transaction-specific benefit.

384. Several commenters deny that the Applicants' residential buildout commitment is a public interest benefit. DISH argues that the Applicants, collectively, would have conducted an analogous buildout absent the proposed transaction.[1296] DISH contends that the natural expansion of the three firms would, in fact, exceed the proposed 1 million additional customer locations passed,[1297] and that network fill-in within existing footprints represents "low hanging fruit" that should not be credited as a public interest benefit.[1298]

385. Other commenters contend that the Applicants' commitment is deficient because it fails to address extending service to unserved and underserved areas, and they propose various conditions to promote deployment to high-cost and rural locations.[1299] Stop the Cap proposes that the Commission condition the transaction on New Charter adopting universal service deployment obligations within all of Time Warner Cable's and Bright House's franchise areas as a means of promoting rural broadband deployment.[1300] The California Emerging Technology Fund (CETF) voices concern over the high cost of broadband deployment in rural, remote and Tribal areas and asks that the Commission condition approval of the proposed transaction on New Charter deploying wireline broadband to ten unserved or underserved areas in California.[1301]

386. *Discussion.* We find that the Applicants have not demonstrated that their proffered commitment to build out to an additional one million customer locations within four years is a benefit of the transaction. The Applicants estimate that without the transaction, they would separately build out to approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** customer locations over the next forty-eight months, using a conservative annual growth rate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.[1302] This natural growth

[1295] Charter Response to Information Request at 13.

[1296] DISH Petition at 34; DISH Reply at 27; DISH Nov. 6, 2015, *Ex Parte* Letter at 3; DISH Dec. 2, 2015, *Ex Parte* Letter at 3. DISH contends that the Applicants' natural growth rates would, in fact, exceed the proposed one million additional customer locations passed.

[1297] DISH Reply at 27. DISH also provides additional documentary evidence that Bright House in a **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. DISH Nov. 30, 2015, *Ex Parte* Letter at 2 (citing BHN-00419643, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**).

[1298] DISH Petition at 37.

[1299] *See* Stop the Cap Comments at 16; California Emerging Technology Fund Comments at 5, 25 (CEFT Comments); California Emerging Technology Fund Reply at 12 (CEFT Reply).

[1300] *See* Stop the Cap Comments at 12 (proposing that a condition requiring New Charter to adopt universal service obligations within each Applicants' franchise areas be made available to any consumer or business within the geographic boundaries of an existing franchise area, and that service would be provided upon request with no construction or other fees regardless of the customer's distance from the existing plant or ROI formula).

[1301] CETF Comments at 5, 25; CEFT Reply at 12.

[1302] Charter predicts, based on existing customer locations passed data multiplied by historical growth rates realized between December 31, 2013 and the present, that it would add over **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** customer locations in the four years after the closing of the transaction. Charter Response to Information Request at 13; *see also* Charter Response to Information Request, Exhibit 3(f)-1, 48 Month Consolidated Line Extension Analysis at 1 (Residential Buildout Analysis). Charter calculated that Time Warner Cable would, in the ordinary course of business in the four years after closing, build to approximately **[BEGIN**

(continued….)

estimate actually **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** the Applicants' proffered commitment, so we find no reason to credit the commitment as a transaction-specific, public interest benefit.[1303]

387. Nevertheless, we find that that the public would benefit from increased residential buildout, post-transaction. As we have noted above, consumers lack competitive alternatives for high-speed BIAS in most of the country.[1304] Residential buildout to areas in which only one firm provides high-speed BIAS would introduce new competition to the local BIAS market, leading to lower prices and greater choice for consumers.[1305] Likewise, buildout to unserved areas would confer a substantial public interest benefit by providing high-speed BIAS to otherwise unserved populations.

388. Therefore, we impose a modified version of the Applicants' residential buildout commitment as a condition to the transaction. We require that New Charter pass, deploy, and offer BIAS capable of providing at least a 60 Mbps download speed to at least two million additional mass market customer locations within five years of closing.[1306] Of that total, New Charter must build to at least one million new customer locations outside of its footprint where any provider other than New Charter offers 25 Mbps or faster BIAS.[1307] To ensure the public benefits from this condition, New Charter may not use funds from the Connect America Fund to satisfy any part of this buildout requirement.[1308] We find that

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HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.] customer locations. Residential Buildout Analysis at 1. Based on historical data, Time Warner Cable states that it builds out to **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. Time Warner Cable Response to Information Request at 11. Charter also calculated that Bright House would build out an additional **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** customer locations over the same period. Residential Buildout Analysis at 1.

[1303] In fact, we find that the Applicants' growth figures likely underestimate the residential buildout for the individual Applicants that would occur absent the transaction. For example, Time Warner Cable, alone, built out to an additional **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** customer locations between December 31, 2013 and December 31, 2014, representing a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent annualized increase in customer locations passed. Residential Buildout Analysis at 1. Time Warner Cable's buildout for 2015 followed an even sharper buildout trajectory—with an additional **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO]** customer locations passed in just the first half of 2015. *Id.* Similarly, Bright House continues to **[BEGIN CONF. INFO.] [END CONF. INFO.]** to new customer locations, building out to **[BEGIN CONF. INFO.] [END CONF. INFO.]** new customer locations in 2014 and budgeting for **[BEGIN CONF. INFO.] [END CONF. INFO.]** in 2015. Advance/Newhouse Response to Information Request, Exh. 3 at 1337.

[1304] *See supra* note 118; Appendix C, Section II.A.1, Table 1.

[1305] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9265, para. 345 (noting that AT&T's build out plans would have a "positive effect on competition"); *Comcast-NBCU Order*, 26 FCC Rcd at 4248, para. 23 (noting that "accelerat[ed] private-sector deployment of advanced services"); *2015 Broadband Progress Report*, 30 FCC Rcd at 1383-85, paras. 15-16.

[1306] *See* Appendix B, Section V.2. This condition contains interim buildout targets and reporting obligations which must be met at pre-determined intervals for the condition to be fulfilled. *Id.*

[1307] Our public interest standard extends to evaluating whether a proposed transaction would enhance competition rather than merely preserve existing competition. *See supra* para. 29 & note 69; *see also AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 21. We find that requiring residential buildout to customer locations already served by existing high-speed BIAS providers will enhance local competition in fulfillment of this statutory goal.

[1308] As we have previously found, "private-sector investment in broadband . . . is critical to ensuring a healthy and innovative broadband ecosystem and to encouraging new products and services that benefit American consumers and businesses of every size." *Applications Filed by Frontier Communications Corporation and Verizon*

(continued….)

this condition, which guarantees additional build-out to new customer locations in excess of New Charter's estimated natural growth rate, will promote competition and the availability of high-speed BIAS to the benefit of the public. Moreover, the concrete competitive benefits stemming from this condition outweigh any harms, in the unlikely event they occur, with respect to broadband pricing.[1309]

389. We decline to adopt the specific conditions proposed by Stop the Cap and CETF regarding deployment. The buildout requirement we impose today establishes a balanced framework for expanding broadband deployment and availability. We find that Stop the Cap's proposal would be overly burdensome and at odds with the Commission's existing approach to ensuring the broadband deployment to high-cost areas of the country where there is no private sector business case to serve residential consumers. Absent more granular data on the number and cost characteristics of unserved locations, we are not inclined to impose a condition on New Charter to serve any consumer or business within its franchise area without regard to the cost to deploy to any specific location. Additionally, we reject CETF's recommendation that New Charter be required to establish new service in particular communities in California.[1310] We find that New Charter will be in the best position to determine the specifics of its buildout plan—within the parameters we establish—and should retain flexibility in choosing locations for its new build.[1311] More detailed buildout requirements could work to undermine the competitive intent of our condition.

G. Expanded Deployment of WiFi Access Points

390. *Positions of the Parties.* The Applicants assert that the proposed transaction would enable New Charter to "increase competition in its service areas by making wireless a larger piece of its broadband strategy."[1312] The Applicants state that New Charter would establish out-of-home WiFi networks."[1313] These would facilitate "out-of-home WiFi usage on mobile devices," and allow "consumers to choose lower data plans when shopping among mobile carriers."[1314] The Applicants also contend that the transaction would enable New Charter to be a new entrant in the mobile wireless market by offering mobile products through increased WiFi deployment, the deployment of licensed spectrum or a mobile virtual network operator (MVNO) arrangement—and likely through some combination of these.[1315] The Applicants contend that increased scale would enable additional investment and commit that within four years of closing the proposed transaction, New Charter would deploy "over 300,000 out-of-home WiFi access points."[1316] The Applicants contend that absent the transaction they would not

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Communications, Inc. for Assignment or Transfer of Control, Memorandum Opinion and Order, 25 FCC Rcd 5972, 5993, para. 53 (2010); *see* Telecommunications Act of 1996, Preamble, Pub. L. No. 104-104, 110 Stat. 56 (1996). None of the applicants currently receive any federal high-cost universal service support, so this condition applies to any future awards of Connect America funding during the five-year build-out term.

[1309] *See supra* Section V.B.2.b.

[1310] *See* CETF Comments at 5, 25; CEFT Reply at 12.

[1311] Flexibility in determining build locations is warranted because the build fulfilling this condition may not be financed using federal universal service support, such as CAF. *See supra* para. *immediately preceding para*; Appendix B.

[1312] Application at 27. *See also* Winfrey Decl. at para. 15; Scott Morton Decl. at para. 13.

[1313] Application at 27. *See also* Winfrey Decl. at paras. 15, 39.

[1314] Application at 27.

[1315] Claimed Benefits White Paper at 11. *See also* Opposition at 25.

[1316] Application at 18; Winfrey Decl. at paras. 39; Charter Response to Information Request at 302.

deploy WiFi Access Points on such a widespread basis.[1317] They also state that New Charter would "evaluate the merits of leveraging in-home routers as public WiFi access points."[1318]

391. A number of commenters express support for the Applicants' commitment to build 300,000 out-of-home WiFi access points, noting that expanding WiFi access would help consumers by providing wider Internet access.[1319] However, DISH and MFRConsulting argue that the Applicants have failed to demonstrate that their WiFi expansion plans are transaction-specific.[1320] DISH argues that continuing with Bright House's and Time Warner Cable's existing rate of access point deployment would result in **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** additional WiFi access points in the next 48 months.[1321] AT&T urges the Commission to carefully examine the Applicants' potential membership in the Cable WiFi Consortium, arguing that the consortium has threatened the development of a consumer friendly mobile video experience not only by "excluding competitors from the network" but also by "restricting competitors from serving mobile video customers using LTE-Unlicensed technologies."[1322]

392. *Discussion.* We find that the Applicants have not met their burden of showing that New Charter's WiFi build-out is a transaction-specific benefit. Rather, the record shows that the Applicants have deployed WiFi networks and plan to continue deployment of additional WiFi access points even in the absence of the transaction. Further, both Time Warner Cable and Bright House are also members of the Cable WiFi alliance, which allows its members' subscribers to use the public WiFi networks of all of its members.[1323] Time Warner Cable indicates that its out-of-home public WiFi network, TWCWiFi, includes **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** hotspots as of September, 2015, and that it will have added approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** WiFi access points by year-end 2015.[1324] In addition, Time Warner Cable indicates that it plans to add an additional **[BEGIN HIGHLY CONF. INFO.] [END**

[1317] Opposition at 25; Scott Morton Reply Decl. at paras. 205, 208. *See also* Claimed Benefits White Paper at 11-12.

[1318] Application at 28.

[1319] *See, e.g.*, Letter from Mark Scheffel, State Senator, CO to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Oct. 13, 2015); Letter from Patrick Waterman, City Manager, Hudsonville, MI to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Oct. 2, 2015); San Luis Obispo Chamber of Commerce Comments at 1; Letter from Elliott Rothman, Mayor, Pomona, CA to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Sept. 30, 2015).

[1320] DISH Petition at 34, 37, 41; DISH Nov. 30, 2015, *Ex Parte* Letter at 4; MFRConsulting Reply at 14. DISH claims that Time Warner Cable has already deployed more than 100,000 hotspots and is part of a consortium that today has more than 400,000 hotspots collectively, and that Bright House has expanded and plans to continue to expand its WiFi deployment even without the transaction. *See* DISH Petition at 34, 37, 41; Letter from Stephanie A. Roy, Counsel for DISH Network to Marlene H. Dortch, Secretary, FCC, MB Docket No, 15-489 at 4 (filed Nov. 30, 2015). MFRConsulting claims that deployment of additional WiFi access points or bidding for spectrum licenses is not likely given New Charter's debt. MFRConsulting Reply at 14, 25-27. *See also supra* Section V.G.8 for a discussion of New Charter's debt load.

[1321] DISH Reply at 28.

[1322] AT&T Comments at 3-4. We find that AT&T's argument is less relevant to consider in this context in view of our conclusion that there is not sufficient evidence for us to conclude that deployment of additional WiFi access points would be a transaction-specific benefit. *See infra* paras. 392, 395.

[1323] Time Warner Cable Response to Information Request at 9; Advance/Newhouse Response to Information Request at 7.

[1324] Time Warner Cable Nov. 19, 2015, Updated Response to Information Request at 3; *see also* Time Warner Cable Response to Information Request at 9, 124; Time Warner Cable Nov. 4, 2015, Updated Response to Information Request at 10.

HIGHLY CONF. INFO.] access points in 2016.[1325] Internal company documents show that Time Warner Cable's WiFi access points are being widely accessed by consumers with, for example, over **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** unique users in December, 2014.[1326]

393. Bright House has deployed approximately 53,000 publicly available WiFi access points mounted either at outdoor locations or indoors at the premises of small-to-medium businesses (SMBs).[1327] Bright House indicates that it plans to add approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** outdoor and indoor business public WiFi access points per month for the foreseeable future with or without the transaction.[1328] Company documents show that, as of September, 2015, Bright House's public WiFi network had over **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** unique users.[1329]

394. Charter currently provides out-of-home WiFi in approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** SMB locations in the St. Louis market.[1330] Charter **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1332] While Charter's out-of-home WiFi deployment is at an earlier stage, internal company documents show that **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[1333] Additional record evidence also suggests that the WiFi expansion Charter claims as a benefit of the transaction is already a part of Charter's existing business plan.[1334] While not currently a member of the Cable WiFi alliance, Charter is pursuing membership, irrespective of the transaction.[1335]

[1325] Time Warner Cable Nov. 19, 2015, Updated Response to Information Request at 3.

[1326] *See* TWCCable-DOJ-0000013713, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[1327] Advance/Newhouse Response to Information Request at 61.

[1328] Advance/Newhouse Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Steven J. Horvitz, Counsel for Bright House to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Nov. 2, 2015).

[1329] Advance/Newhouse Response to Sept. 21, 2015, Information Request, Exhibit 42(b) **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** at 1.

[1330] Charter Response to Information Request at 242.

[1331] *Cf.* Charter Response to Information Request, Exhibit 89-4 (**[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**); CHR2-FCC-00000017512 (**[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**).

[1332] Charter Response to Information Request at 242.

[1333] *See* CHR2-DOJ-00000261896 at 4, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1334] *See* CHR2-FCC-00000048809, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1335] Charter Response to Information Request at 242 n.194.

395. We also find that the Applicants have not demonstrated that New Charter's potential entry into the wireless market is a transaction-specific benefit. Documents in the record demonstrate Charter's interest in **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1336] The evidence shows that Time Warner Cable also **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[1337] This evidence suggests that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Further, while Charter generally contends that New Charter's larger scale will justify increased investment in wireless services, it fails to provide sufficient detail to enable the Commission to verify its claims. The Applicants have neither provided sufficient evidence for us to determine why the transaction would make a combined entity more inclined to purchase spectrum, nor that their entry into the wireless market is likely, nor that the Applicants could not pursue entry through other strategies, including becoming MNVOs, on their own without the transaction.

H. Deployment of a Mobile Video Application

396. *Positions of the Parties.* The Applicants assert that the proposed transaction would enable New Charter to deploy an "advanced mobile video application that would combine the best features of the pre-transaction companies' apps into one integrated app."[1338] The Applicants state that the application would include the "Spectrum Guide user interface, on demand and 'download-to-go' functionality and the nearly 300 live channels on Time Warner Cable TV's application, creating an 'enhanced' customer experience for current Charter, Time Warner Cable, and Bright House customers in ways that could not be achieved but for the transaction."[1339] The Applicants state the mobile video application would include additional features, more out-of-home content access, TV control, and advanced search and discovery.[1340]

397. The Applicants contend that the transaction would speed development of the application by allowing New Charter to leverage resources and infrastructure across the combined company. They also contend that, by integrating the existing features of the pre-transaction companies' apps, New Charter would be able to "focus development efforts and investments" on new features that would improve the customer experience.[1341] They state that, in developing the application, New Charter would take advantage of the "in-home on-demand rights that [Charter] already licenses but does not use."[1342] The Applicants expect to incur costs obtaining these rights,[1343] but also assert that New Charter would "be able to spread investment costs associated with the mobile video application more efficiently across a larger subscriber base."[1344]

[1336] *See* CHR2-DOJ-00000075345, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1337] *See* TWCable-DOJ-000021838 at 21, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1338] Application at 26; Winfrey Decl. at para. 14.

[1339] Application at 26-27; Winfrey Decl. at para. 14.

[1340] Charter Response to Information Request at 324-325.

[1341] *Id.* at 323.

[1342] *Id.* at 314.

[1343] *Id.*

[1344] *Id.* at 323. *See also infra* Section VI.K for a discussion of fixed costs.

398. WGAW argues that the development of an integrated application should not be viewed as a potential benefit of the transaction because it would "actually eliminate the very likely possibility of competitive entry into the others' markets, limiting future competitors and innovation."[1345] Public Knowledge argues that the Applicants' commitment does not go far enough to protect the public interest because "Charter subscribers should be able to access their video programming on the device of their choice—not just on those devices that Charter has decided to make an app for."[1346]

399. *Discussion.* While the transaction may lead to the deployment of an improved mobile video application, we ascribe minimal weight to this benefit. Evidence in the record shows that Charter, Bright House, and Time Warner Cable have all deployed mobile applications that allow consumers to watch content on a wide variety of live and on-demand channels.[1347] Time Warner Cable and Bright House also are considering ways to continue to enhance the features of their mobile apps to benefit their subscribers.[1348] Taken together, the evidence shows that today, in the absence of the transaction, each Applicant's subscribers already may have access to mobile video applications that provide access to some live and on-demand video content and features such as remote DVR programming. Given the capabilities of the existing applications, we find that any added benefit that would result from New Charter's hastened deployment of an advanced mobile video application is likely to be minimal. Moreover, we find insufficient evidence in the record to conclude that each Applicant could not improve their mobile video applications without the transaction.

I. Video Device and User Interface Innovation

400. In Section V.G.4, we discussed comments alleging harm in the sale of video devices. Here, we analyze the Applicants' claim that the transaction would bring improved video devices and user interfaces, specifically by distributing Charter's Worldbox set-top box and Spectrum Guide user interface system to Time Warner Cable and Bright House subscribers. Because the Applicants have failed to provide a credible estimate of the claimed benefits or demonstrate why the benefits are transaction-specific, we do not credit the roll out of Spectrum Guide or Worldbox as a public interest benefit.[1349]

[1345] WGAW Petition at 37.

[1346] Public Knowledge et al. Petition at 11-12.

[1347] Charter Response to Information Request at 323-325; Advance/Newhouse Response to Information Request at 7; Time Warner Cable Response to Information Request at 15. Charter's application provides approximately 4500 out-of-home on-demand titles, over 40 live TV channels, and enables subscribers to play content when not connected to a network. Charter Response to Information Request at 324. Documents in the record show that Bright House's application, BHTV, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* BHN-000215531, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Time Warner Cable offers TWC TV which provides subscribers with access to over 300 live TV channels and over 16,000 on-demand choices in-home. Subscribers can also access video out-of-home, with access to "dozens of live TV channels" and "thousands" of on-demand programs. TWC TV allows subscribers to tune their set top box and program their DVRs remotely through their devices. *See* Time Warner Cable, *TWC TV® App*, https://www.timewarnercable.com/en/tv/features/twc-tv html (last visited Apr. 1, 2016).

[1348] Time Warner Cable Response to Information Request at 15; BHN-000215531 **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]*;* TWCable-DOJ-001335082 at 19-20, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

[1349] *See also infra* Section VI.K.

401. *Positions of the Parties.* The Applicants state that New Charter would provide Time Warner Cable and Bright House subscribers with Charter's new Worldbox set-top box and cloud-based Spectrum user interface system.[1350] According to the Applicants, Worldbox is an innovative set-top box that uses a downloadable security system with an advanced digital video recorder (DVR) and time- and space-shifting capabilities.[1351] Charter's Spectrum Guide uses a cloud-based technology that delivers a customizable, interactive experience, and does not require installation of a new set-top box.[1352] In addition, the Applicants expect that the Spectrum Guide application would function on a wide range of devices and seamlessly integrate cable video and OTT content.[1353] The Applicants argue that Time Warner Cable and Bright House have chosen a hardware-centric approach to set-top boxes and that to update their subscribers to the latest technology they would have to develop a product similar to Spectrum Guide and replace each household's set-top box.[1354] The Applicants contend that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1355]

402. The Applicants claim that they would deploy Spectrum Guide initially to all-digital systems and continue as systems are digitized,[1356] over **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** period.[1357] Charter estimates the consumer benefit from Spectrum Guide is one dollar per television per month, approximately **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** annually.[1358] Further, the Applicants claim that Worldbox would be deployed to the whole New Charter footprint **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[1359]

[1350] Application at 25-26; Charter Response to Information Request at 140.

[1351] Application at 26; Winfrey Decl. at para. 13; Opposition at 23; Scott Morton Reply Decl. at para. 72; Claimed Benefits White Paper at 12.

[1352] Application at 25; Winfrey Decl. at para. 13; Opposition at 23; Scott Morton Reply Decl. at para. 72; Claimed Benefits White Paper at 12. Spectrum Guide can also be updated from the cloud. *See* Charter Response to Information Request at 13-15, 139-40, 317-19.

[1353] Application at 25; Winfrey Decl. at para. 13; Charter Response to Information Request at 10-11, 15, 140-141, 314-315, 318-319; Scott Morton Reply Decl. at paras. 31, 36, 43-46, 72-73; Benefits White Paper at 12-13. Charter has initiated Spectrum Guide's integration into Roku, iOS, and Android devices. *See* Opposition at 23 n.82. **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* Application at 25. Content is available through the Spectrum Guide on these devices to current Charter customers only. *See* Scott Morton Reply Decl. at para. 41.

[1354] Scott Morton Reply Decl. at para. 74.

[1355] Claimed Benefits White Paper at 13.

[1356] Application at 25; Charter Response to Information Request at 141.

[1357] Claimed Benefits White Paper at 13-14. The Applicants initially committed to rolling out Spectrum Guide to the acquired systems as those systems were converted to all-digital. Application at 25; *see also* Charter Response to Information Request at 294, 319.

[1358] Claimed Benefits White Paper at 16.

[1359] *Id.* at 16. The Applicants initially stated that it had hoped to deploy Worldbox "as quickly as possible." Charter Response to Information Request at 313, 320.

403. Some commenters agree that Charter's deployment of Spectrum Guide and Worldbox to Time Warner Cable and Bright House customers are public interest benefits.[1360] Conversely, Stop the Cap argues that while Charter's current set-top box lease fee is less than the national average,[1361] it may increase with the introduction of more advanced equipment, such as Worldbox.[1362] Public Knowledge et al. argue that New Charter would have greater scale and control over a larger number of set-top boxes, therefore stifling innovation in set-top box standards and resulting in harms to consumers.[1363]

404. *Discussion.* The Commission regards a robust and competitive video device market to be a benefit to consumers.[1364] However, the Applicants have not demonstrated that Time Warner Cable and Bright House subscribers could not obtain services and products similar to the Worldbox and Spectrum Guide from their cable company in the future if the transaction did not proceed, nor why Time Warner Cable or Bright House Networks could not procure advanced devices and user guides from hardware or software suppliers. While we recognize the potential for additional innovation through the Applicants' development of cloud-based technology, the benefit to the video device marketplace is difficult to quantify, and there is no basis in the record to do so. Accordingly, we ascribe no weight to this potential benefit.

J. Generalized Claims Related to Reduced Barriers to Innovation

405. *Positions of the Parties.* The Applicants argue that the increased scale of the transaction would spur increased investment and innovation by spreading fixed-cost investments over a larger customer base.[1365] The Applicants claim that due to a lack of scale, both Charter and Time Warner Cable have delayed investment in various products and services.[1366] They further claim that economies of scale would enable New Charter to be better able to follow up and enhance the individual company's recent innovations,[1367] enabling New Charter to serve its customers with its own innovations.[1368] The Applicants

[1360] ARRIS Comments at 2; Herring Networks Comments at 2; Free State Comments at 12; Cisco Comments at 4-5. According to Cisco, further developments include remote DVR for IP video in the home and upgrades to enhance streamed video traffic. *See* Cisco Comments at 4-5.

[1361] Charter's current STB lease fee is $6.99; the national average is $7.34. Stop the Cap Comments at 13.

[1362] The Applicants have not disclosed how much New Charter would charge customers for its Worldbox set-top box. Stop the Cap Opposition at 13.

[1363] Public Knowledge et al. Petition at 17; Public Knowledge Reply at 2, 11-12. Stop the Cap expresses concern that New Charter would raise their set-top box lease fees with the introduction of Worldbox. Stop the Cap Opposition at 11. According to internal documents, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See* CHR2-DOJ-00000225246, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. However, Stop the Cap fails to link Charter's purported lease fee increase to a transaction-specific harm; therefore, we give Stop the Cap's concerns no weight.

[1364] *See First Navigation Device Report and Order*, 13 FCC Rcd at 14776, para. 2.

[1365] Application at 28-30; Winfrey Decl. at paras. 16, 17; Scott Morton Decl. at paras. 7-10, 28; Opposition at 7-8; Scott Morton Reply Decl. at paras. 198-200; Charter Response to Information Request at 305-06, 320-21, 333.

[1366] Scott Morton Decl. at para. 14-15; Opposition at 7-8; Scott Morton Reply Decl. at paras. 207-08; Charter Response to Information Request at 304, 307.

[1367] *See* Application at 30; Winfrey Decl. at para. 19.

[1368] Winfrey Decl. at para. 18. According to the Applicants, without **[BEGIN HIGHLY CONF. INFO.]**

(continued….)

also contend that New Charter would be better able to attract a top-tier research and development (R&D) team with more full-time employees and better facilities, and be better able to play an important role in developing standards for standard-setting bodies.[1369] The Applicants also argue that increased scale would make them a better partner for innovative services.[1370] The Applicants claim it may not be economical for innovators to develop products and services for three separate platforms, but by partnering with New Charter they could develop a single product for a larger scale and the fixed cost would be spread over a larger customer base.[1371]

406. Some commenters agree that the transaction would foster innovation and investment.[1372] DISH, however, argues that combining two sets of cable assets does not necessarily result in a lower cost per subscriber, or that any generated cost savings would be passed on to consumers.[1373] In addition, DISH claims that reducing the number of innovating companies from three to one would likely reduce the overall amount of innovation.[1374]

407. *Discussion.* We find that the Applicants have not met their burden of proving that the transaction would foster more innovation. The Applicants present a theoretical argument that increased scale would result in additional innovation and investment,[1375] focusing on the increased scale that New Charter would experience, but they do not sufficiently address why Time Warner Cable—by far the largest of the three Applicants—does not already possess sufficient scale to support innovation. Moreover, while we agree with the Applicants' example that the fixed cost per subscriber of Spectrum Guide would have been significantly less if Time Warner Cable's and Bright House's subscribers had been taken into account, Charter nonetheless undertook this innovation without the increase in scale. The Applicants have not provided evidence that with an increased scale this innovation would have occurred on a shorter time frame or would have included additional features.

408. Further, the Applicants have provided insufficient evidence that the transaction would allow New Charter to better attract top R&D employees, increase in-house innovation, or make them better partners to third party innovators. Finally, while the Applicants have claimed that there are benefits to innovators in having one instead of three different platforms to innovate for, the reduced number of firms also would reduce the number of opportunities for some innovators, particularly those that do not

(Continued from previous page)

[END HIGHLY CONF. INFO.]. *See* Charter Response to Information Request at 304-05.

[1369] Application at 29; Winfrey Decl. at para. 18; Opposition at 23; Charter Response to Information Request at 321-33.

[1370] Application at 32; Winfrey Decl. at para. 22; Scott Morton Decl. at para. 28; Charter Response to Information Request at 320-21, 332-33.

[1371] Application at 32-33; Winfrey Decl. at para. 22; Scott Morton Decl. at para. 28.

[1372] Herring Networks Comments at 2; TheBlaze Comments at 2; ARRIS Comments at 1-2; Cisco Comments at 5-6, 7; ITIF Comments at 7-8.

[1373] DISH Petition at 34-39; DISH Reply at 31.

[1374] DISH Petition at 39-40.

[1375] We note that while there is theoretical economic literature that finds a relationship between scale and innovation, *see* A. Dixit, R. Pindyck, & S. Sigbjørn, *A Markup Interpretation of Optimal Investment Rule*, 109 The Economic Journal 179-89 (1999), the empirical literature finds an ambiguous relationship. *See, e.g*., Joseph Schumpeter, Capitalism, Socialism, and Democracy (1942); Aghion, Phillipe, Nick Bloom, Richard Blundell, Rachel Griffith, & Peter Howitt, *Competition and Innovation: an Inverted-U Relationship*, 120(2) Quarterly Journal of Economics 701-28 (2005); Michael Katz & Howard Shelanski, *Mergers and Innovation*, 74(1) Antitrust Law Journal 50-54 (2007).

find scale to be important. Therefore, it is not clear from the record whether this transaction would increase innovation or benefit innovators. For all of these reasons, we conclude that the Applicants have not demonstrated that their claims of increased innovation from the increased size of New Charter are cognizable public benefits.

K. Generalized Claims Related to Lowered Costs

409. *Positions of the Parties.* The Applicants claim that, as a result of the transaction, New Charter would generate $800 million in annual cost savings by the end of the third year after closing.[1376] According to the Applicants, these cost savings would result in numerous benefits that would not be achieved without the transaction—including expansion of out of home WiFi access points, development of new mobile applications, and expanded access to digital service.[1377] Charter claims that indirect overhead costs would account for approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million of these cost savings.[1378] These overhead and operating expense synergies reflect the reduction of duplicative facilities and procurement benefits resulting from increased scale.[1379]

410. Charter first estimated these indirect overhead cost savings by evaluating whether Time Warner Cable would need to significantly increase corporate overhead, regional management overhead, and related indirect costs if it acquired Charter.[1380] Charter found that Time Warner Cable's existing infrastructure could support Charter's assets without the addition of new leadership or administrative positions. Therefore, New Charter could generate synergies that are approximately the size of Charter's current overhead and indirect cost base.[1381] Charter also estimated these savings by **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1382] Charter classifies these indirect overhead cost savings as primarily fixed-cost savings.[1383]

[1376] Application at 31; Charter July 10, 2015, *Ex Parte* Letter at 1; Charter Response to Information Request at 166. This figure includes programming payment reductions. *See supra* Section VI.B. The Applicants also claim additional cost savings comprised of field operation costs and customer care costs that are not included in the $800 million claimed cost savings. Charter Response to Information Request at 298.

[1377] Charter Response to Information Request at 310-11.

[1378] New Charter expects to generate **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per year in personnel cost synergies resulting from reductions in overhead and management functions such as finance, human resources, information technology, and product development. The remaining **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** is expected to result from reduction in overhead and other operating expenses. *Id.* at 272-273. The Applicants project that New Charter would achieve full indirect overhead synergies in two to three years following the close of the transaction. Charter estimates one-time costs of **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. *See id.* at 292.

[1379] Charter Response to Information Request at 273.

[1380] *Id.* at 274.

[1381] *Id.* at 273-74.

[1382] *Id.* at 272-73.

[1383] *Id.* at 302. The Applicants note that these costs are not directly related to the number of customers served or other measures of output.

411. In addition to fixed cost savings, the Applicants also claim marginal cost savings due to increased scale.[1384] The Applicants cite Worldbox as a specific example. The Applicants claim that savings from deploying Worldbox would occur because the overall cost of Worldbox is less than Time Warner Cable's set-top box.[1385] By deploying Worldbox, the Applicants claim that New Charter would save approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per box.[1386] The Applicants anticipate that this price differential would result in marginal cost savings of at least **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million and that 50-60 percent of these cost savings would be passed on to customers,[1387] resulting in a benefit of between [**BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million and **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million.[1388]

412. Some commenters claim overhead costs savings and greater economies of scale would benefit consumers by enabling New Charter to invest in upgrading its broadband network.[1389] Other commenters argue that the Applicants' claimed cost savings are vague, non-transaction-specific, and trivial compared to New Charter's overall expenditures, or significantly smaller than Charter claims.[1390] Others commenters argue that the cost savings are unlikely to be passed through to customers.[1391]

413. *Discussion.* While the Applicants may achieve certain cost savings and efficiencies as a result of the transaction, we ascribe minimal weight to these claimed benefits. With respect to indirect overhead cost savings, the Applicants provide a fairly detailed explanation of the methodology used to determine these cost savings. However, these indirect overhead cost savings are largely fixed costs. As previously stated, we generally find reductions in fixed cost to be less cognizable than reductions in marginal costs because the former are less likely to result in benefits (such as lower prices) for consumers.[1392]

[1384] Application at 28, 31; Winfrey Decl. at paras. 16, 20; Scott Morton Decl. at paras. 8, 21; Opposition at 25. For example, the Applicants state that increased scale would enable the firm to purchase inputs such as co-axial cable, construction services, and modems at large volumes thereby realizing volume discounts. Scott Morton Dec. para. 21; Scott Morton Reply Decl. at para. 215.

[1385] Scott Morton Decl. at para. 22; Scott Morton Reply Decl. at para. 37; Claimed Benefits White Paper at 17.

[1386] Scott Morton Decl. at para. 22; Scott Morton Reply Decl. at para. 37. The cost of Worldbox plus platform fees is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. The cost of Time Warner Cable's set top box plus CableCARD is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. *See* Scott Morton Decl. at para. 22; Scott Morton Reply Decl. at para. 37; Claimed Benefits White Paper at 17.

[1387] Claimed Benefits White Paper at 18 (citing Katz Reply Decl. at para. 55).

[1388] Claimed Benefits White Paper at 18-19. The Applicants contend that cost savings would benefit consumers either in expected pass-through of savings or in the form of increased working capital to support the deployment of advanced broadband services. Scott Morton Decl. at para. 21; Opposition at 26-27; Scott Morton Reply Decl. at para. 215.

[1389] Free State Comments at 12.

[1390] *See, e.g.*, Free Press Reply at 4, 7 (citing a Charter press release stating that cost savings would be $500 million in the first year); Greenlining Institute Petition at 15; Free Press Petition at 24, 22 (Free Press also noted that the Applicants have not committed to improving customer service or any other tangible customer benefits); MFRConsulting Reply at 16-17.

[1391] DISH Reply at 31; Entravision Reply at 3-4; Free Press Petition at 52 (arguing benefits would inure to the merged firm not customers due to lack of competition in the market).

[1392] *See supra* Section VI.B; *see also News Corp.-Hughes Order*, 19 FCC Rcd at 611, para. 317; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20631, para. 191; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237-38, para. 275.

414. The Applicants also argue that adopting Charter's more efficient customer service and call center operating strategy would result in service transactions cost savings by significantly reducing New Charter's costs associated with field operations and customer care.[1393] However, the Applicants do not quantify these cost savings and therefore we are unable to credit these potential cost savings as a benefit of the transaction.

415. Finally, while the Applicants claim there would be additional marginal cost savings resulting from increased scale and volume discounts, they do not undertake a comprehensive analysis to quantify these savings. Instead, the Applicants limit their analysis to a single example: potential savings from deploying Worldbox to Time Warner Cable and Bright House subscribers post-transaction. While the Worldbox and associated platform fees may cost less than the set-top boxes and CableCARD deployed by Time Warner Cable and Bright House, the differences in installation and maintenance costs between Worldbox and Time Warner Cable's set-top boxes were not included in the analysis. Taking this difference into account may increase or decrease the purported cost savings. As we found in Section VI.B above, a portion of marginal cost savings would likely be passed onto subscribers and, to the extent such pass-through occurs, we recognize it as a public interest benefit.[1394] We note again, however, that we find that Dr. Katz likely overstated the pass-through rate.[1395]

L. Improved Service for Regional and National Advertisers

416. *Positions of the Parties.* The Applicants claim that in DMAs that currently do not have advertising interconnects, individual advertising customers who wish to reach Charter and Time Warner Cable subscribers currently must make separate purchases from both companies.[1396] They further state that New Charter would offer advertisers in these DMAs the opportunity to reach both sets of subscribers in a single transaction.[1397] The Applicants are unable to estimate the savings for advertisers from this ability, but speculate that advertisers would benefit by eliminating the incremental costs of transacting with two entities as opposed to one.[1398] The Applicants believe it is likely that the transaction costs presently associated with coordinating advertising campaigns across multiple MSOs have the effect of reducing the potential market for Charter's advertising services, although it has no specific data supporting this belief.[1399]

417. The Applicants also state that due to the greater scale and more rationalized footprint resulting from the transaction, New Charter is more likely to invest in developing more advanced advertising services, such as addressable advertising and dynamic ad insertion for VOD.[1400] Charter intends to **[BEGIN HIGHLY CONF. INFO.]**

[1393] According to Charter, in the past three years it has reduced its transactions cost per customer and its overall cost to service customers as a percentage of revenues, and anticipates that deploying the same strategy post-transaction would result in additional cost savings. Charter Response to Information Request at 297-98.

[1394] *See supra* para. 346.

[1395] *See supra* para. 341. Moreover, Dr. Katz notes that Charter has increased set-top-box fees to cover programming cost increases and, thus, the price increases Charter has imposed were not based solely on the device's marginal costs. *See* Katz Reply Decl. at para. 53. Therefore, after Worldbox is deployed, New Charter subscribers may not see a reduction in their set-top box fees along with New Charter's reduction in marginal costs.

[1396] Charter Response to Information Request at 250. These include **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[1397] *Id.*

[1398] *Id.*; *see also* Scott Morton Reply Decl. at para. 219.

[1399] Charter Response to Information Request at 250-51.

[1400] Winfrey Decl. at para. 30.

[END HIGHLY CONF. INFO.].[1401] These services, according to the Applicants, would provide advertisers with more cost-effective methods of reaching targeted audiences.[1402] Moreover, they claim that the introduction of advanced advertising platforms would increase the quantity and quality of avails.[1403]

418. NAB argues that the transaction would result in a larger, regionally consolidated MVPD participating in interconnects with multiple other MVPDs.[1404] Thus, New Charter would be able to compete more vigorously for advertising than would a broadcast television station which is prohibited from entering into "even a single" joint sales agreement for the sale of advertising.[1405] Hence, according to NAB, the transaction would undermine economic support for the public's free TV service.[1406]

419. The Applicants respond that the transaction's geographic integration, i.e., increased local and regional density, would increase competition in enterprise and advertising markets as well as provide New Charter with operating efficiencies.[1407] They reject NAB's concerns that the transaction would result in levels of geographic concentration that would harm NAB's members.[1408] To the contrary, the Applicants counter, increased competition in advertising markets is a public benefit.[1409]

420. *Discussion.* We ascribe minimal weight to the claimed benefits to regional or national advertisers. The Applicants appropriately focus on the benefits advertisers may experience in metropolitan areas that lack an advertising interconnect because the transaction could reduce transaction costs and deliver advertisers other benefits that advertising interconnects often provide advertisers. As the Applicants admit, however, they are "unable to quantify the savings or benefits to advertisers."[1410] So although some benefits may accrue, we are unable to determine their magnitude.

M. New Charter's Ability to Market Itself

421. *Positions of the Parties.* The Applicants contend that the transaction would allow it to better market its own services to potential customers.[1411] The Applicants claim that expanded geographic

[1401] Charter Response to Information Request at 251.

[1402] Winfrey Decl. at para. 31.

[1403] Charter Response to Information Request at 251. In the Application, the Applicants note that Time Warner Cable is one of several cable firms that co-own NCC Media, a media advertising firms that sells video and online advertising to local, regional and national customers. Time Warner Cable sells advertising independently as well as via NCC Media. Application at 12.

[1404] NAB Petition at iii.

[1405] *Id.*

[1406] *Id.* NAB's concern regarding potential limitations on broadcasters' joint sales agreements (JSAs) is misplaced in the instant transaction. These issues are more appropriately addressed within the context of the Commission's multiple ownership and JSA proceedings. *See supra* Section V.G.9.

[1407] Opposition at 43, 52.

[1408] *Id.* at 78.

[1409] *Id.* at 78. Dr. Scott Morton states that the post-transaction firm's increase in geographic scope would make the per subscriber advertising cost of mass media fall, which would increase competition among rivals and benefit customers. Scott Morton Reply Decl. at paras. 218-19.

[1410] Charter Response to Information Request at 250.

[1411] Winfrey Decl. at para. 31. Thus, currently, Charter **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. Scott Morton Reply Decl. at para. 217.

rationalization following the transaction would make mass media advertising methods a more feasible option in numerous DMAs where today Charter passes a relatively low percentage of homes.[1412] The Applicants claim that "by making the company more visible to consumers, increased mass media advertising would create competitive pressure on other MVPDs to improve their services and reduce their prices."[1413]

422. *Discussion.* The transaction may result in increased marketing campaigns by New Charter compared with the Applicants today. Increased marketing may cause other MVPDs to face additional competitive pressure, which will inure to the benefit of consumers. The Applicants, however, have failed to provide information sufficient to allow the Commission to determine the benefit to consumers from New Charter's increased advertising, and we therefore do not ascribe minimal weight to the claimed benefit.

N. Other Potential Public Interest Benefits

1. Cybersecurity

423. *Positions of the Parties.* The Applicants assert that the transaction would "enable New Charter to take advantage of the best cybersecurity practices employed by Charter, [Time Warner Cable], and Bright House."[1414] To achieve this, "Charter intends that top cybersecurity personnel from the three merging companies will collaborate to identify 'best of breed' cybersecurity practices that the new Company can adopt on an enterprise-wide basis."[1415] Time Warner Cable likewise asserts that the "transaction will allow New Charter to improve its policies and processes by expanding threat intelligence capabilities and the deployment of network protection systems throughout a broader network."[1416] Further, the Applicants claim that the "company's combined scale will lead to enhanced intelligence gathering, information sharing, and threat dissemination capabilities that will improve security and reliability across the network."[1417]

424. With regard to Charter's current cybersecurity measures, Charter claims that it "has adopted and is in the process of implementing the National Institute of Standards and Technology (NIST) Cybersecurity Framework throughout the company and is adopting a number of CSRIC IV recommendations, including those recommendations that align and adapt the NIST framework to the

[1412] Charter Response to Information Request at 277; *see also* Scott Morton Reply Decl. at para. 216 (arguing that New Charter would be more likely to spend resources using mass marketing after the transaction because each advertisement would reach a larger number of subscribers or potential subscribers). The Applicants demonstrate that Charter's mass media advertising efforts are affected by the number of homes it passes in a given television market area. For example, in the St. Louis area, where Charter's footprint passes **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of homes, it primarily uses television advertising, whereas in Los Angeles, where it passes just **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of homes, it tends to use radio advertising more frequently. *See* Charter Response to Information Request at 277. Once the transaction closes, Charter claims that New Charter would reach **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of homes within Los Angeles, which would make television the most efficient way of advertising to prospective subscribers in that television market. *Id.; see also* Scott Morton Reply Decl. at para. 217.

[1413] Charter Response to Information Request at 280.

[1414] *Id.* at 255; Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 at 2-4 (filed Dec. 15, 2015) (Charter Dec. 15, 2015, *Ex Parte* Letter).

[1415] Charter Response to Information Request at 255.

[1416] Time Warner Cable Response to Information Request at 130.

[1417] *Id.*

cable industry."[1418] Charter includes cybersecurity as part of its "governance framework" to "ensure . . . that senior management and the board of directors are regularly briefed about cybersecurity issues and can make informed decisions about them."[1419] Charter states that it also has an "organization dedicated solely to the security of its network and services," which includes the implementation of "threat and risk management processes; security and event monitoring capabilities; detailed incident response plans; and other advance, detection, prevention, and protection capabilities,"[1420] as well as insider-threat monitoring and mitigation practices and tools.[1421] Finally, Charter states it remains active in multiple industry-specific cybersecurity working groups and engages with federal government officials to "keep abreast of developing cyber threats and trends."[1422]

425. Time Warner Cable states that it also is "in the process of implementing" the NIST Cybersecurity Framework.[1423] Time Warner Cable states that it closely coordinated with the Commission and industry organizations to help develop the Framework, and played a "lead role in integrating the Framework into the communication sector."[1424] Further, Time Warner Cable claims that it manages a "24x7 Enterprise Risk Operations Center," "dedicated to supporting customer-facing security risks, including assisting customers with cyber threats."[1425] Finally, Time Warner Cable provides cybersecurity updates to the Board of Directors, including the Audit Committee.[1426]

426. Bright House states that it "currently employs industry-standard physical, technical and administrative safeguards to protect its networks and its customers' information."[1427] Bright House claims that it provides cybersecurity updates to management, including briefings regarding cybersecurity incidents.[1428] Bright House represents that it has formed the Security Governance Council, which

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[1418] Charter Dec. 15, 2015, *Ex Parte* Letter at 3. *See* National Institute of Standards and Technology, "Framework for Improving Critical Infrastructure Cybersecurity," (Feb. 12, 2014) (NIST Cybersecurity Framework), http://www.nist.gov/cyberframework/upload/cybersecurity-framework-021214.pdf. CSRIC IV refers to the FCC's Communications Security, Relaibility and Interoperability Council, Working Group 4.

[1419] Charter Dec. 15, 2015, *Ex Parte* Letter at 3; *see also* Charter CHR2-FCC-00000079947 at 13-14, "Charter Security Program, Executive Steering Committee Update," Charter Communications (Aug. 28, 2015). The senior management includes the "Security Executive Steering Committee," that encompasses Charter's chief executive officer, chief operating officer, general counsel, and other key business units' management.

[1420] Charter Dec. 15, 2015, *Ex Parte* Letter at 2-3 (discussing Charter's distributed denial of service (DDoS) attack protection program). *See also* Charter CHR2-DOJ-00000659560 at 3, 4, (**[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[1421] Charter Dec. 15, 2015, *Ex Parte* Letter at 2.

[1422] Charter Response to Information Request at 255. *See also* CHR2-DOJ-00000651021 at 4, **[BEGIN CONF. INFO.]** **[END CONF. INFO.]**).

[1423] Time Warner Cable Response to Information Request at 131.

[1424] *Id.*

[1425] *Id.*

[1426] *See* TWCable-DOJ-000690978 at 4 & Exhibit C, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[1427] Advance/Newhouse Response to Information Request at 64.

[1428] *See* Letter from Steven J. Horvitz, Counsel to Advance/Newhouse, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed May 3, 2016) (Advance/Newhouse May 3, 2016, Ex Parte Letter); BHN-000410907, **[BEGIN HIGHLY CONF. INFO.]**

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includes C-suite/senior VP level participation to gain executive visibility and spread awareness on information security risks, which receives updates about cybersecurity related breaches, trends, and training.[1429] In addition, Bright House has a dedicated security team who reports to the CIO[1430] and states that it has "deployed distributed denial of service (DDoS) detection and mitigation security controls to minimize the impact of a DDoS attack."[1431] To protect customers in the service footprint, Bright House claims that it has deployed robot network (BOTNET) sensors; and to protect its websites, has deployed Web Application Firewalls (WAF).[1432]

427. Charter states that it has already begun the process of "identify[ing] 'best-of-the-best' cybersecurity practices at each company" with the collaboration of the top cybersecurity personnel from the three merging companies[1433] and has identified various programs from Charter and Time Warner Cable that New Charter would implement.[1434] Moreover, Charter represents that New Charter also plans to continue to utilize the NIST Cybersecurity Framework and recommended standards,[1435] and that it plans to establish a corporate governance structure that ensures that the New Charter board and management are "actively engaged in oversight and implementation of the company's cybersecurity program."[1436]

428. *Discussion.* The Applicants contend that the public would benefit from increased security brought about by the combined cybersecurity expertise of the three companies spread across a larger footprint. No commenter raised objections to the transaction based on cybersecurity issues.

429. We have previously found that "privacy and network security are among the factors that can affect the quality and reliability of broadband services" and have pledged to "continue in our efforts to promote broadband deployment and availability, and in general, ensure that the transition to new technologies proceeds in a manner that does not diminish the privacy and network security protections."[1437] As previously observed, mergers pose risks because of the transition from one set of management to another and because the new combined entity may face interoperability and coordination challenges that may create new vulnerabilities for the systems.[1438] At the same time, we have not adopted

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[END HIGHLY CONF. INFO.]; BHN-000962713, **[BEGIN CONF. INFO.]**

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[1429] Advance/Newhouse May 3, 2016, Ex Parte Letter; Advance/Newhouse Response to Information Request at 279 (describing governance and organization). *See also* BHN-000508428, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]).

[1430] Advance/Newhouse Response to Information Request, Exhibit 45 at 279, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.] (filed Oct. 13, 2015); Advance/Newhouse May 3, 2016, Ex Parte Letter.

[1431] Advance/Newhouse Response to Information Request at 62-63.

[1432] *Id.*

[1433] Charter Dec. 15, 2015, *Ex Parte* Letter at 3.

[1434] *Id.* at 4 (**[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].)

[1435] *Id.*

[1436] *Id.*

[1437] *2015 Broadband Progress Report*, 30 FCC Rcd at 1438-39, paras. 105-106.

[1438] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9276, para. 387.

a prescriptive regulatory approach to cybersecurity; instead, we expect companies to proactively manage and enhance their cyber risk management posture.

430. Charter currently maintains an active cybersecurity program that is made a priority to various leadership and decision-making levels. Charter has started to discuss cybersecurity plans with its Time Warner Cable and Bright House counterparts, although integration work remains. During the transitional period for New Charter, however, Charter states that **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[1439] The Applicants' plans to adopt and implement the NIST Cybersecurity Framework and statement that it will collaborate to identify "best of breed" cybersecurity practices are important steps in cyber risk management.

431. We agree with the importance New Charter places on cyber risk management, however, given the importance of cybersecurity in the communications ecosystem, the size of the proposed transaction, and the complexities of integrating three distinct operating units into New Charter, we do not find sufficient information in the record to conclude that the cyber risk posture of New Charter is better than that of the Applicants individually. As such, we do not recognize New Charter's cybersecurity program as a public interest benefit of the proposed transaction. In fact, we find that the objective network goals outlined by New Charter will introduce heightened cybersecurity risks during the integration period that will require proactive measures to reduce risk, in order to ensure that consumers are not exposed to higher levels of cyber risk for both their data and transactions. Increased complexity while in a transition state, changes in the cybersecurity workforce, the establishment of trust relationships between networks, and the continued evolution of tools used to attack networks together suggest a significantly raised cyber risk environment during the integration period.[1440]

432. In light of these considerations, we believe that reporting to the Commission is appropriate in order to help ensure that any harm is appropriately mitigated. We thus adopt a condition requiring New Charter to submit a confidential filing[1441] to the Commission's Public Safety and Homeland Security Bureau within three months of the close of the transaction describing its plans for managing the increased cybersecurity risks during the transition period. Companies are in the best position to manage their own cyber risks; this documented strategy—not a checklist but a description of corporate security realignment—will serve as a helpful guidepost for New Charter's combined cybersecurity initiatives during the transition. The plans will also help assure the Commission that New Charter is actively considering its security posture during the challenging integration period. We note that this approach is consistent with past Commission use of filed plans as a mechanism to ensure accountability[1442] and provides a means of guiding a company's structure for risk management.[1443] We

[1439] Charter Dec. 15, 2015, *Ex Parte* Letter at 4.

[1440] *See* Ruth Liew, *Cyber Risk Poses Increased Threat in Mergers and Acquisitions*, Financial Review (Aug. 31, 2015), http://www.afr.com/technology/cyber-risk-poses-increased-threat-in-mergers-and-acquisitions-20150831-gjbdli; Kacy Zurkus, Inherited Risk: The Downside of Mergers and Acquisitions, CSO (Sep. 17, 2015) http://www.csoonline.com/article/2984627/business-continuity/inherited-risk-the-downside-of-mergers-and-acquisitions html; Anita Hartman, *SANS Institute, Security Considerations in the Merger/Acquisition Process*, 2002, https://www.sans.org/reading-room/whitepapers/casestudies/security-considerations-merger-acquisition-process-667. We note that a recent data breach at Time Warner Cable compromised customer emails and passwords. *See* Stephanie Mlot, PCMagazine, *Time Warner Cable Warns Users of Possible Data Breach* (Jan. 7, 2016), http://www.pcmag.com/article2/0,2817,2497611,00.asp.

[1441] The Applicants may seek confidential treatment of this report pursuant to section 0.459 of our rules, 47 C.F.R. 0.459.

[1442] *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, 30 FCC Rcd 1259, 1271, para. 37 (2015).

[1443] *See* NIST, *Framework for Improving Critical Infrastructure Cybersecurity Version 1.0* (Feb. 12, 2014), http://www.nist.gov/cyberframework/upload/cybersecurity-framework-021214.pdf. The NIST Cybersecurity

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impose this condition to ensure that New Charter is actively considering its approach to cyber risk management and reducing the vulnerability of consumers' data during the integration period.

2. Diversity Practices

433. *Positions of the Parties.* The Applicants pledge that New Charter would incorporate and build upon Time Warner Cable's best practices with respect to diversity and inclusion for suppliers and corporate governance.[1444] They indicate that such practices would include attracting, retaining and promoting a skilled workforce; increasing engagement with minority, women, veteran, and disabled-owned businesses; and developing leadership to ensure accountability meeting diversity and inclusion goals.[1445]

434. The Applicants state that minority, women, veteran and disabled-owned businesses can supply New Charter with the "high quality" materials and programming its customers demand.[1446] The Applicants point to Time Warner Cable's existing supplier diversity engagement activities, as part of its supplier diversity initiatives.[1447] Additionally, the Applicants claim that New Charter plans to actively collaborate with national and local supplier organizations whose members consist of vendors that are owned by minorities, disabled persons, and veterans; and maintain profiles of these groups for the purpose of tracking New Charter's spend with all such vendors.[1448]

435. For New Charter employees, the Applicants state that company leadership would ensure accountability to meeting diversity and inclusion goals.[1449] Also, the Applicants claim that New Charter would look to Time Warner Cable's Executive Inclusion Council which regularly convenes senior management to report to the Chief Executive Officer on progress towards achieving diversity and inclusion priorities, as a means to spur employment diversity across New Charter's business.[1450]

436. Further, the Applicants explain that an additional best practice would be focused on attracting, retaining, and promoting a skilled workforce that reflects its diverse customer base.[1451] In doing so, the Applicants claim that New Charter would work through partnerships with educational

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Framework resulted from E.O. 13636, which directed NIST to "to lead the development of a framework to reduce cyber risks to critical infrastructure." Exec. Order No. 13636, 78 FR 11739, 11740-41 (Feb. 12, 2013).

[1444] Winfrey Decl. at para. 33.

[1445] *Id.*

[1446] Application at 41; *see also* Winfrey Decl. at para. 33.

[1447] Application at 41.

[1448] Charter Response to Information Request at 290.

[1449] Application at 41. Charter states that New Charter would develop and disseminate a comprehensive diversity and inclusion policy, hire a senior leader to oversee workplace diversity and inclusion initiatives, provide training to its leaders to underscore the benefits of a diverse workforce and the expectation that they foster a culture of inclusion, and establish and support workplace affinity groups that reflect the diversity of the workforce and the communities New Charter serves. Charter Response to Information Request at 289. Through active memberships in and support of organizations that assist with the vocational and professional development of minorities, women, disabled persons, the LGBT community, and veterans, the Applicants claim that New Charter would engage in broad outreach to the communities in which it operates to attract, hire, train and retain diverse talent. *Id.*

[1450] Application at 41.

[1451] *Id.* at 40; *see also* Winfrey Decl. at para. 33.

institutions, nonprofits, and with the veterans and disability communities.[1452] Additional efforts, the Applicants claim would involve Time Warner Cable's Employee Network Program to provide New Charter employees significant opportunities to build skills, knowledge, and achieve professional goals.[1453]

437. DISH Network counters that the diversity and inclusion promises of the Applicants are not transaction-specific, and can be accomplished at any time, without the benefit of the transaction.[1454] Moreover, Greenlining argues that none of the Applicants' commitments regarding diversity, inclusion, customer-friendly contracting and jobs are meaningful.[1455]

438. *Discussion.* The Applicants have not demonstrated that the claimed benefits could not be adopted by the transaction parties without the transaction. Accordingly, we ascribe no weight to claimed diversity practices benefits in our analysis of the transaction.[1456]

3. Labor Practices

439. *Positions of the Parties.* The Applicants commit to increase customer care through domestic investment and in-sourced jobs,[1457] and claim that New Charter would bring thousands of overseas Time Warner Cable jobs back to the United States.[1458] They explain that many, if not most of the overseas jobs would be brought in-house, where the Applicants would provide significant training, benefits, and opportunities for advancement, which would add to the skill level and economic fabric of local communities.[1459]

440. Charter employees fill approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of Charter's call center jobs.[1460] Also, Charter describes plans to **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[1461] The total number of additional call center jobs "will easily be in the thousands," according to Charter, although it also notes that it has not yet determined the precise number of additional employees that would be

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[1452] Application at 40. Partnership organizations would include, e.g., Women in Cable Telecommunications (WICT), the National Association for Multi-Ethnicity in Communications (NAMIC), and the Betsy Magness Leadership Institute. *Id.*

[1453] *Id.* at 41. The Applicants state that these practices have helped Time Warner Cable earn consistent recognition as a "top place" to work for minorities and women by organizations such as Diversity, Inc., the Human Rights Campaign and NAMIC, among others. *Id*.

[1454] DISH Petition at 37.

[1455] Greenlining Institute Petition at 2. The Applicants fail, in Greenlining Institute's view, to justify how the transaction would benefit communities of color, especially in the Los Angeles area which includes 71.4 percent persons of color and 60 percent who speak a language other than English. *Id.*

[1456] *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9282, para. 389; *News Corp.-Hughes Order*, 19 FCC Rcd at 623-624, para. 357.

[1457] Application at 41; *see also* Winfrey Decl. at para. 35.

[1458] Winfrey Decl. at para. 35.

[1459] Application at 42; *see also* Winfrey Decl. at para. 35. The Applicants maintain that these new jobs would also help to develop the Applicants' own high-skilled, well-paid workforce devoted to delivering improved customer service across the country. *Id.*

[1460] Charter Response to Information Request at 287.

[1461] *Id.* Charter estimates that Time Warner Cable and Bright House currently out-source **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** and **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** call center jobs offshore, respectively. *Id.*

necessary to perform the work of Time Warner Cable's and Bright House's currently outsourced employees.[1462] By the end of 2015, Charter expects to employ **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** installation and service technicians constituting **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** of its field technicians, and to have 96 percent of service visits done by in-house field technicians.[1463] Charter commits that New Charter would continue this in-sourcing strategy with respect to field technician positions within the Time Warner Cable and Bright House footprints.[1464]

441. Jim Boyd, Florida House of Representatives, states that his constituents have benefited from the placement of a new Bright House call center in Manatee County and the hiring of some 160 new employees.[1465] Several additional commenters look forward to the job creation opportunities posed by the grant of the transaction.[1466]

442. DISH Network counters that Charter's claims about producing additional jobs run counter to its claims about the cost savings to be generated by the transaction.[1467] DISH argues that the proposed hiring of "thousands" of call center employees and technicians New Charter would be offset by the elimination of jobs, which are intended to produce savings efficiencies.[1468] The Greenlining Institute agrees, adding that the Applicants' assertions regarding job increases are too vague to ensure that the claimed benefits would mitigate the harm caused by job eliminations and reductions in benefits.[1469]

443. *Discussion.* As part of its public interest analysis, the Commission historically has considered employment-related issues such as job creation, commitments to honor union bargaining contracts, and efficiencies resulting from workforce reduction.[1470] Although, in past transactions, the Commission has found that labor issues are often not transaction-specific and/or are best addressed by

[1462] *Id.*

[1463] *Id.* at 288.

[1464] *Id.*

[1465] Letter from Rep. Jim Boyd, Florida House of Representatives, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Nov. 5, 2015) at 1; *but see* MFRConsulting Reply at 22-23 (asserting that, if closing outsource centers and bringing jobs back to the U.S. is a good idea for New Charter, then it is similarly a good idea for Time Warner Cable). *See also* Greenlining Institute Reply at 4.

[1466] Letter from Rep. Mike Cierpiot, Missouri House of Representatives, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Aug. 14, 2015); Letter from Michael Urbis, President, McMillan Economic Development Corporation, Ewen, Michigan, to Tom Wheeler, FCC Chairman, MB Docket No. 15-149 (filed Oct. 6, 2015); Letter from Sen. Judy Emmons, Michigan State Senate, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Nov. 5, 2015); Letter from Arnie Roblan, State Senator, Oregon, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed July 30, 2015); Letter from Craig Goldman, District 97, Texas State House of Representatives, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Jan. 25, 2016); Letter from Brian Maienschein, Assembly, 77th District, Assembly, California Legislature, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Jan. 21, 2016); Letter from Rose Licht, Manager, Bridgeport Charter Township, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Jan. 26, 2016).

[1467] DISH Petition at 40.

[1468] *Id.*; *see also* DISH Reply at 30 ("[e]ven were Charter to create as many as 3,000 new U.S. call center jobs, Charter has failed to explain the extent to which these call center jobs are offset by the **[BEGIN HIGHLY CONF. INFO.]**

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[1469] Greenlining Institute Petition at 14.

[1470] *See, e.g.*, *Sprint-Nextel Order*, 20 FCC Rcd at 14029-30, paras. 168-69; *Comcast-NBCU Order*, 26 FCC Rcd at 4330, para. 224.

state agencies, the NLRB, and the EEOC,[1471] when applicants can demonstrate that a number of U.S. jobs will be created as a result of a proposed transaction, the Commission will consider this as part of its public interest analysis. As with all claimed benefits, the Applicants have the burden of proof regarding transaction-specificity, quantification, and verification.[1472]

444. We recognize the considerable support in the record for the Applicants' pledge to bring back to the U.S. thousands of call center positions which are currently outsourced abroad. We applaud the Applicants' forward-looking plans to enhance employment opportunities in the communities they will serve. On the whole, however, the Applicants' intentions in this regard are vague. We also agree with commenters who note that the Applicants' hiring commitments run counter to the cost-saving efficiencies and synergies claimed as benefits of the transaction. We therefore conclude that the Applicants have failed to demonstrate that their proposed labor practices constitute a verifiable benefit of the transaction.

4. Low-Income Broadband Offerings

445. *Positions of the Parties.* The Applicants claim that New Charter would build on Bright House's broadband program for low-income consumers by making a broadband offering available with higher speeds and expanded eligibility while continuing to offer the service at a significant discount, and would begin making the offer available within six months after the transaction closes and offer it across the New Charter footprint within three years of closing.[1473]

446. Several commenters write in support of the Applicants' plans for implementing Bright House's low-income broadband option, noting among other things, the limited financial means of thousands of Americans to connect to their communities and the world through technology.[1474] These commenters believe the provision of an expanded low-income broadband option based on Bright House's Connect2Compete broadband program is a public benefit of the transaction and strongly encourage the Commission to grant the transaction based on this and other commitments proposed by the Applicants in their Application.[1475]

[1471] *Comcast-NBCU Order*, 26 FCC Rcd at 4329-30, para. 223.

[1472] *See, e.g.*, *Sprint-Nextel Order*, 20 FCC Rcd at 14029-30, paras. 168-69 (explaining the standard and noting that it had not been met in that case). The Applicants typically ask us to consider job reduction as a cost-reducing efficiency, consistent with general business practices in which transactions lead to the elimination of positions that are no longer required post-merger. Not surprisingly, to date, there are no examples of Applicants' meeting the standard and receiving credit for creating transaction-specific jobs.

[1473] Application at 20*; see also* Charter Response to Information Request at 294.

[1474] *See, e.g.*, Letter from Representative Michael Butler, Missouri House of Representatives, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Sept. 7, 2015); Letter from Gregory F.X. Daly, Collector of Revenue, City of St. Louis, Missouri, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Sept. 18, 2015; Letter from Michael P. Wurm, Executive Director, Truckee Meadows Boys & Girls Club (Reno, Nevada), to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (undated).

[1475] *See, e.g.*, Letter from Arnie Roblan, State Senator, Salem, Oregon, to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed July 30, 2015) (citing the significant economic hardship of Oregon rural families and how the Applicants' commitment of returning jobs from abroad would help families seeking jobs). *See also* Letter from Laurene Gramling Lambach, Pres. and CEO, SET Ministry, Inc., to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Sept. 17, 2015) at 1 (noting that many Milwaukee citizens are "trapped in poverty" and the low-income broadband initiative as promised by the Applicants would reach a contingent of consumer that "typically cannot afford broadband"); Letter from Stacie Bytwork, Executive Director, Manistee Area Chamber of Commerce (Michigan), to Tom Wheeler, Chairman, FCC, MB Docket No. 15-149 (filed Nov. 4, 2015) at 1 (stating that residents who live in the more rural parts of the county are potential beneficiaries of the proposed low-income broadband offering; noting that 17 percent of the county's population lives below the poverty line); Connected

(continued….)

447. Coalition for Broadband Equity (CBE)[1476] asserts that both Time Warner Cable and Charter lag behind several other cable operators in the provision of affordable Internet access programs for K-12 children enrolled in federal school lunch programs and asks the Commission to condition its approval of the Application on: (1) an affordable Internet service tier or program for all low-income households; and (2) ambitious, accountable participation goals, supported by a major marketing commitment.[1477]

448. The California Emerging Technology Fund (CETF)[1478] proposes that New Charter offer, for at least three years or until 80 percent of the eligible persons in the underserved targeted communities are connected, a standalone wireline broadband offering at $10 per month.[1479] CETF submits that this commitment should include a 45 percent national goal for New Charter to reach the eligible persons in the targeted underserved communities within three years in its service areas and continue to offer the option until 80 percent of the targeted population is connected.[1480] Greenlining notes that the Applicants indicate in their Application that the low-income broadband service may not be available throughout New Charter's footprint for at least six months—and in some locations, not for as long as three years.[1481]

(Continued from previous page)
Nation Comments at 2 (stating that provision of a low-cost adoption program that is targeted to the low-income non-adopting population has the potential to deliver considerable public interest benefits).

[1476] CBE is an organization consisting of 21 local government agencies, libraries, educational institutions and community groups in Cleveland, Akron, Dayton and Youngstown, Ohio; Cuyahoga, Greene and Lorain Counties, OH; Milwaukee, WI; Winston-Salem, NC; Kansas, MO and Kansas, KS. All of CBE member communities are totally or partially located within Time Warner Cable's service territory and, as such, would be directly impacted by any transfer of Time Warner Cable to Charter. Coalition for Broadband Equity Comments at 1 (CBE Comments).

[1477] CBE Comments at 4; Coalition for Broadband Equity Reply at 2 (CBE Reply). CBE suggests eligibility for the low-income broadband program be the same as the eligibility criteria for Lifeline; a monthly fee of $9.95 per month; annual and 5-year program participation goals (including one million sign-ups over 5 years); a $50 million investment in marketing and new customer support for the broadband program; and, lastly, outreach, training, and literacy programs for underserved communities conducted in partnership with community-based organizations. *Id.* at 2-3; *see also* OTI Comments at 7-8 (seeking pricing similar to the Lifeline program). CBE adds that Time Warner Cable has also either failed to make monetary contributions to programs intended to spur broadband adoption (following its purchase of Adelphia cable systems) or has withdrawn its participation in other such community-based efforts. CBE Comments at 5 n.1.

[1478] The California Emerging Technology Fund (CETF) is a non-profit organization dedicated to closing the digital divide. CETF Comments at 2.

[1479] CETF Comments at 3. CETF submits that the offering should be available to all low-income households, seniors over age 65, persons with disabilities and returning veterans. *Id.* CETF warns that overly restrictive business rules for the proposed low-income broadband program, such as limiting eligibility to low-income families that have not subscribed to Bright House Internet service within the last 90 days and have no outstanding bills or unreturned equipment, serves to disqualify the very target population that the program seeks to assist. CETF Reply at 8.

[1480] CETF Comments at 3; *see also* CETF Reply at 4. According to CETF, New Charter should also capitalize an independent fund to assist community-based organizations with digital literacy and outreach regarding the low-income broadband program. CETF Reply at 4. CETF proposes that a fund of $285,000 would be adequate to reach 45 percent of all eligible low-income households at a rate of $275 per household. CETF Reply at 4.

[1481] Greenlining Institute Petition at 9 (citing Application at 14-15). Further, they assert that the commitment for the enhanced and expanded low-income broadband program lacks the required specificity to ensure that the benefits would result. *Id*. at 9, 15 n.61; *see also* Letter from Shawn Sheridan to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 20 (filed Dec. 28, 2015) (filer describing himself as indigent with a monthly gross income 300 percent below the national poverty line and stating that Applicants' low-income broadband offer "was only extended to those who receive a free school lunch and seniors who commonly do not utilize computers or smart phones . . . how would the Transaction be of benefit to me?").

449. DISH claims that "there is nothing stopping" the Applicants from implementing a low-income broadband option now if they choose to do so.[1482] Free Press challenges the Applicants' notion that Bright House's low-income broadband offering, Connect2Compete, is a suitable plan for increasing broadband deployment on the grounds that Bright House's program has strict eligibility requirements, appears to limit the enrollment window to one month a year; and only allows customers to sign up by phone.[1483] Free Press argues that a program that offers discounted broadband to a tiny subset of low-income customers is insufficient to offset the harms posed by the transaction.[1484]

450. On December 22, 2015, Charter filed an *ex parte* letter describing plans for a low-income broadband program if the transaction is approved.[1485] The plan would provide a standalone broadband service 30/4 Mbps for $14.99 per month, available to households with a child enrolled in the National School Lunch Program (NSLP) receiving either free or reduced lunch, or at least one senior citizen (65 or older) receiving Supplemental Security Income (SSI).[1486] Enrollment would be open year-round as opposed to a seasonal enrollment period tied to the K-12 school year.[1487] The new broadband program would be implemented within six months of the close of the transaction and would be available across the entire New Charter footprint within three years of closing.[1488] Charter outlined several consumer eligibility criteria for the low-income broadband program including requirements that: (1) outstanding debt owed to New Charter (service or equipment) must be settled; and (2) eligible households may not have subscribed to New Charter broadband services in the previous two months. Assuming the criteria are met, customers currently receiving the Connect2Compete broadband service from Bright House would also be able to enroll in the new low-income broadband program when it becomes available in their service area.[1489]

451. Charter estimates that **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** households in New Charter's footprint would be eligible to subscribe to this broadband service based on participation in NSLP.[1490] Charter estimates an additional **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** households would be eligible to subscribe to the service based on age (65 or older) and receipt of SSI.[1491] Based on the foregoing current data, a total of

[1482] DISH Petition at 37. DISH refers to Time Warner Cable's "Everyday Low Price" broadband offering of 2/1 Mbps at $14.99 per month available to all subscribers. *Id*. at 38. DISH observes that Time Warner Cable has an ongoing low-cost broadband option with no eligibility requirements, and Bright House's low-cost broadband offering appears difficult to subscribe to, is open for enrollment during limited time periods, and is not well-advertised. *Id.* at 38 n.134. DISH describes Bright House's low-cost broadband option as offering 2 Mbps down and 512 kpbs up. *Id*.; *see also* OTI Comments at 7-8 (questioning whether the Applicants' proffered low-income broadband offer is a transaction-specific benefit).

[1483] Free Press Reply at 23.

[1484] *Id.* Moreover, according to Free Press, the Applicants' plans to adopt Bright House's low-income broadband program is not a suitable replacement for a low-cost broadband option, such as Time Warner Cable's current Everyday Low Price for broadband ($14.99). *Id.*

[1485] *See* Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Dec. 22, 2015) (Charter Dec. 22, 2015, Low-Income Broadband *Ex Parte* Letter) (stating New Charter would not impose an additional charge for modem rental).

[1486] Charter Dec. 22, 2015, Low-Income Broadband *Ex Parte* Letter at 1.

[1487] *Id.* at 2 n.4.

[1488] *Id.* at 1 n.1.

[1489] *Id.* at 2 n.4.

[1490] *Id.* at 6, Table 1.

[1491] *Id.* at 6, Table 1.

[BEGIN HIGHLY CONF. INFO.] **[END HIGHLY CONF. INFO.]** households throughout the New Charter footprint would be eligible to receive low-cost broadband service.[1492] Charter ascribes a total potential benefit from the low-income broadband service of approximately **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** billion annually, of which **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** billion, or **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** percent is the result of new broadband subscribership and **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** percent is associated with lower prices for households that currently subscribe to a different broadband service.[1493]

452. *Discussion.* We find that Charter's proposed low-income broadband program is not a transaction-specific benefit. We agree with DISH that any of the Applicants could offer a low-income broadband program absent the transaction.[1494] Indeed, Bright House already offers such a program.[1495] Nevertheless, we find that the public would benefit from programs designed to bridge the digital divide. There is ample evidence that a significant portion of Americans have yet to avail themselves of the benefits of full connectivity.[1496] In this regard, we note that many lower income households utilize mobile phones to access the Internet rather than a home Internet connection, thereby limiting the range of tasks or functions they can perform online.[1497] Furthermore, we agree that a more robust low-income broadband commitment with accountability mechanisms will help address the digital needs of these consumers.[1498]

453. Therefore, rather than credit Charter's December proposal for a low-income broadband program as a benefit, we impose a modified version of Charter's proposal as a condition to the transaction.[1499] We impose this condition in order to ensure that the public benefits of the transaction outweigh the potential harms. This condition augments Charter's December proposal by making enrollment more straightforward for a broad base of low income subscribers. The condition also

[1492] *Id.* at 6, Table 1. Charter adds that some 2.31 million (or 44 percent) of what would be eligible households under the new low-income broadband program do not currently subscribe to a broadband service. *Id.* at 9.

[1493] *Id.* at 9. Charter adds that the actual net benefits from the low-cost service would depend on the "take rate" associated with the offering. Thus, if 25 percent of eligible households choose to sign up for the service, the net annual benefits would be approximately **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** million. *Id.* at n.26.

[1494] *See* DISH Petition at 37.

[1495] *See* EveryoneOn, *Eligibility*, http://everyoneon.org/eligibility (last visited Mar. 12, 2016).

[1496] *See 2016 Broadband Progress Report*, FCC 16-6, para. 39; Remarks of Chairman Tom Wheeler, Forum on "Digital Equity: Technology and Learning in the Lives of Lower-Income Families," New America Foundation, Washington, D.C. (Feb. 3, 2016) ("when we talk about digital equity, we need to remember that we're talking a key part of the answer to many of our nation's greatest challenges—issues like income inequality, job creation, economic growth, U.S. competitiveness."). *See also* John B. Horrigan & Maeve Duggan, Pew Research Center, Internet, Science & Tech, *Home Broadband 2015* (Dec. 21, 2015) (finding that 69 percent of Americans indicate that not having a home high-speed Internet connection would be a major disadvantage to finding a job, getting health information or accessing other key information with 33 percent citing cost as the major reason for not having home broadband aces), http://pewrsr.ch/1Ik2m6z.

[1497] *See See also* John B. Horrigan & Maeve Duggan, Pew Research Center, Internet, Science & Tech, *Home Broadband 2015* (Dec. 21, 2015) http://pewrsr.ch/1Ik2m6z.

[1498] *See, e.g.*, Victoria Rideout and Vikki Katz, *Opportunity for All? Technology and Learning in Lower-Income Families* (Feb. 3, 2016), http://www.joanganzcooneycenter.org/wp-content/uploads/2016/01/jgcc_opportunity forall.pdf/ (finding that 42 percent of those without home Internet access reported the cost was the main reason they lacked access; based on a national survey of 1,200 low-income parents of school-age children and in-person interviews in communities in Colorado, California and Arizona).

[1499] *See* Appendix B, Section VI.

incorporates multiple enforcement mechanisms and holds New Charter accountable for achieving specific enrollment figures at regular intervals.

VII. REMEDIES

454. The Commission's review of a proposed transaction entails a thorough examination of the potential public interest harms and any verifiable, transaction-specific benefits, including any commitments made by the Applicants to further the public interest. As part of this process, the Commission may impose additional remedial conditions to address potential harms likely to result from the proposed transaction or to help ensure the realization of any promised potential benefits.[1500] If, on balance, after taking into consideration these additional remedial conditions, the potential benefits associated with the proposed transaction outweigh any remaining potential harms, the Commission will find that the proposed transaction serves the public interest.

455. As described above, we find that the transaction as proposed would likely cause public interest harms but may also produce modest public interest benefits. Under our sliding-scale approach, we conclude based on this record that the potential benefits are insufficiently large, specific, and imminent to outweigh all likely potential harms. We have imposed, however, several conditions, which in addition to remedies stemming from the Applicants' Consent Decree with the DOJ, allow us to find that the proposed transaction overall would be in the public interest. As discussed in detail below and in Appendix B, we find that, in light of the conditions and other remedies, the public interest benefits of the proposed transaction outweigh the likelihood of significant public interest harms, such that overall, the proposed transaction is in the public interest.

456. *Settlement-Free Interconnection and Related Disclosure Requirements.* We find that New Charter's share of wired nationwide BIAS subscribers and its control of interconnection traffic will give it sufficient power in the interconnection market to raise prices, and to cause harm to video competition by impairing rival OVDs. To prevent harms and to protect OVD competition, we determine that conditions are necessary. We condition the transaction on a modified version of the Applicants' offer of settlement-free interconnection.

457. *Data Caps and Usage-Based Pricing.* In addition, we find that the transaction increases the risk that the combined entity will use its BIAS to engage in practices, such as data caps and discriminatory usage-based prices that favor its MVPD and online video services over competing online video content and OVDs. Based on the evidence in the record, we conclude that a condition is necessary to address any increased incentive New Charter will have to use these practices to hinder the development of OVDs as a competitive option to its own video offerings. Accordingly, as a condition of this transaction, we prohibit the combined entity from imposing data caps or usage-based prices for its residential BIAS.

458. *Supporting and Provisioning CableCARDs.* We find that it is in the public interest to ensure that consumers have options for accessing cable video services on retail set-top-boxes. We adopt a condition that ensures New Charter will fulfill Charter's stated commitment to continue to purchase, distribute, and service CableCARDs so that its subscribers continue to have alternatives to leasing equipment from their cable provider.

459. *Programming Agreements.* We find that the transaction would increase the risk that New Charter would obtain from programmers additional restrictions against online distribution and cause

[1500] *Verizon Wireless-SpectrumCo Order*, 27 FCC Rcd at 10739-40, para. 111; *AT&T-Centennial Order*, 24 FCC Rcd at 13929, para. 30. With respect to remedying harms, the Commission has held that it will impose conditions only to remedy harms that arise from the transaction (i.e., transaction-specific harms) and that are related to the Commission's responsibilities under the Communications Act and related statutes. *AT&T-Verizon Wireless Order*, 25 FCC Rcd at 8747, para. 101.

consumer harm in the video distribution market. Based on the evidence in the record, we conclude that a remedy is necessary. We have worked with the DOJ to prohibit, for seven years, New Charter from entering or enforcing contractual terms that inhibit distribution of content online.

460. *Residential Build-Out Commitment.* The Applicants have committed to expanding broadband deployment to unserved areas. We adopt as a condition of this transaction a requirement that the Applicants' expand BIAS deployment in order to solidify public interest benefits and to ensure that the public benefits outweigh any public interest harms. Specifically, New Charter will expand its existing BIAS networks to two million more residences. This condition is intended to encompass all of the Applicants' pre-transaction planned deployment, projected deployment absent the transaction, and any additional deployment that is profitable as a result of the transaction.

461. *Discounted Broadband Services Offer*. While we find that the increased availability of high-speed broadband service is a potential benefit of the transaction, we also conclude that the public interest requires us to ensure that the current selection of broadband services are not the only competitive choices for low-income subscribers who may not be able to afford such services. Accordingly, we will require as a condition of this transaction that the combined entity make available an affordable, low-price standalone broadband service to certain low-income consumers in the combined entity's footprint.

462. *Cybersecurity*. In addition to the conditions and remedies described above, we recognize that disparate operational systems with wide variation in their current cybersecurity approaches creates a greatly increased cybersecurity risk environment, particularly during the transition period. We therefore adopt a reporting condition that requires New Charter to describe its plans for managing this risk during its transition period.

463. *Reporting and Outside Compliance Officer*. These conditions serve an important role in securing the public interest benefits and mitigating the potential public interest harms of this transaction. Accordingly, to ensure that New Charter complies with the Order's conditions, we require that New Charter retain both an internal company compliance officer and an independent, external compliance officer that will report and monitor, respectively, the combined entity's compliance in accordance with the terms of this Order. Enforcement responsibilities remain the sole province of the Commission.

VIII. BALANCING POTENTIAL PUBLIC INTERST HARMS AND BENEFITS

464. After careful examination and analysis, we find that the public interest benefits that are likely to accrue to consumers are sufficient to support the grant of the Application. We acknowledge that the merger of the Applicants, and in particular their BIAS businesses, raise significant competitive concerns. We therefore impose conditions intended to prevent the likely public interest harms from arising and that guarantee significant public interest benefits. Thus, on balance, we find that there is sufficient evidence on this record for us to conclude that the Applicants have met their burden of demonstrating that the likely public interest benefits outweigh the likely public interest harms, such that we are able to approve the proposed transaction.

IX. CONCLUSION

465. We have reviewed the proposed transaction, the Application of Charter, Time Warner Cable, and Advance/Newhouse, and related pleadings and other submissions. We conclude that the Applicants are fully qualified and that the public interest benefits promised by the proposed transaction are sufficient to support the grant of the Application, pursuant to the public interest.

X. ORDERING CLAUSES

466. Accordingly, having reviewed the Application and the record in this matter, **IT IS ORDERED**, pursuant to Sections 4(i) and (j), 303(r), 214(a), 214(c), 309, and 310(d) of the Communications Act, as amended, 47 U.S.C. §§ 154(i), 154(j), 303(r), 214(a), 214(c), 309, 310(d), that the Application for Consent to the Transfer of Control of various Commission licenses and authorizations from Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership to

New Charter, as set forth in Appendix A, **IS GRANTED** to the extent specified in this Memorandum Opinion and Order and subject to the conditions specified herein, including Appendix B.

467. **IT IS FURTHER ORDERED** that the above grant shall include authority for New Charter, consistent with the terms of this Memorandum Opinion and Order, to acquire control of: (a) any licenses and authorizations issued to Charter, Time Warner Cable, or Bright House, or their subsidiaries, during the Commission's consideration of the Application and the period required for consummation of the transaction following approval; (b) any applications that have been filed by Charter, Time Warner Cable, or Bright House, or their subsidiaries, and that are pending at the time of consummation; and (c) licenses that may have been inadvertently omitted from the Application that are held by Charter, Time Warner Cable, and Bright House.

468. **IT IS FURTHER ORDERED** that the conditions incorporated herein shall continue to apply until they expire by their own terms as expressly stated or as otherwise provided in Appendix B.

469. **IT IS FURTHER ORDERED**, pursuant to Sections 4(i) and (j), 309, and 310(d) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 309, 310(d), that the Petitions to Deny filed by the Alliance for Community Media and the Alliance for Communications Democracy, COMPTEL, DISH Network Corporation, Entravision Communications Corporation, Free Press, Lincolnville Networks, Inc., Tidewater Telecom, Inc., and Unitel, Inc., Public Knowledge, Common Cause, Consumers Union, and Open Mic, the Greenlining Institute, the Writers Guild of America, West, Inc., and Zoom Telephonics, Inc. and all similar petitions **ARE DENIED**.

470. **IT IS FURTHER ORDERED**, pursuant to Sections 4(i) and (j), 309, and 310(d) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 309, 310(d), that the requests that the Application be denied or held in abeyance pending the completion of other proceedings raised in the Petition to Hold in Abeyance of the National Association of Broadcasters and the Petition to Deny of Entravision Communications Corporation and all similar petitions and requests **ARE DENIED**.

471. **IT IS FURTHER ORDERED** that this Memorandum Opinion and Order **SHALL BE EFFECTIVE** upon release, in accordance with Section 1.103 of the Commission's rules, 47 CFR § 1.103.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

List of Licenses and Authorizations to be Transferred

CHARTER LICENSES AND AUTHORIZATIONS

Part 78 – Cable Television Relay Service (CARS)

File No.	Licensee	Call Sign
CAR-20150630AA-09	CC VIII Operating, LLC	KQQ-26
CAR-20150630AB-09	CC VIII Operating, LLC	WLY-689
CAR-20150630AC-09	CC VIII Operating, LLC	WLY-669
CAR-20150630AD-09	Charter Cable Partners, LLC	WLY-637
CAR-20150630AF-09	Bresnan Communications, LLC	WHZ-634
CAR-20150630AG-09	Bresnan Communications, LLC	WHZ-748
CAR-20150630AH-09	Bresnan Communications, LLC	WLY-332
CAR-20150630AI-09	Bresnan Communications, LLC	WLY-861
CAR-20150630AJ-09	Bresnan Communications, LLC	WLY-914
CAR-20150630AK-09	CCO SoCal I, LLC	WAM-603
CAR-20150630AL-09	CCO SoCal I, LLC	WAM-609
CAR-20150630AM-09	CCO SoCal I, LLC	WHZ-899
CAR-20150630AN-09	CCO SoCal I, LLC	WSA-52
CAR-20150630AO-09	CCO SoCal I, LLC	WSJ-78
CAR-20150630AP-09	CCO SoCal I, LLC	WGV-505
CAR-20150630AQ-09	CCO SoCal I, LLC	WHZ-511
CAR-20150630AR-09	CCO SoCal I, LLC	WHZ-662
CAR-20150630AS-09	CCO SoCal I, LLC	WHZ-764
CAR-20150630AT-09	CCO SoCal I, LLC	WBW-21
CAR-20150630AU-09	Falcon Cable Systems Company II, LP	WHZ-856
CAR-20150630AV-09	Falcon Cable Systems Company II, LP	WHZ-645
CAR-20150630AW-09	Falcon Cable Systems Company II, LP	WLY-695
CAR-20150630AX-09	Falcon Cable Systems Company II, LP	WHZ-632
CAR-20150630AY-09	Falcon Community Venture I, LP	WAY-753
CAR-20150630AZ-09	Falcon Community Venture I, LP	WHZ-908
CAR-20150630BA-09	Falcon Community Venture I, LP	WLY-441
CAR-20150630BB-09	Falcon Community Venture I, LP	WLY-446
CAR-20150630BC-09	Falcon Video Communications L.P.	WGJ-868
CAR-20150630BD-09	Rifkin Acquisition Partners, LLC	WGZ-305

Parts 27, 87, 90 and 101 – Private Wireless Licenses

File No.	Licensee	Lead Call Sign
0006844362	Charter Communications Operating, LLC	WQRJ765
0006846098	Bresnan Communications, LLC	WNKK403
0006844566	CC Michigan, LLC	WQLA501
0006845163	Charter Communications, LLC	KLP528
0006844904	CCO SoCal I, LLC	WQKG921
0006845110	Falcon Cable Systems Co. II, LP	WQKG920
0006845141	Plattsburgh Cablevision Inc.	KVE945
0006845195	Charter Communications, LLC	WQTA660
0006854019	Charter Communications, Inc.	WQRA689

Part 63 – Domestic Section 214 Authority

Blanket Domestic Section 214 Authority

Charter Fiberlink – Alabama
Charter Fiberlink CA-CCO
Bresnan Broadband of Colorado
Charter Fiberlink CT-CCO
Charter Fiberlink – Georgia
Charter Fiberlink – Illinois
Charter Fiberlink LA-CCO
Charter Fiberlink MA-CCO
Charter Fiberlink – Michigan
Charter Fiberlink CC VIII
Charter Fiberlink CCO
Charter Fiberlink MS-CCVI, LLC
Charter Fiberlink – Missouri
Bresnan Broadband of Montana
Bresnan Digital Services
Charter Fiberlink – Nebraska
Charter Fiberlink NV-CCVII
Charter Fiberlink NH-CCO
Charter Fiberlink NY-CCO
Charter Fiberlink NC-CCO
Charter Fiberlink OR-CCVII
Charter Fiberlink SC-CCO
Charter Fiberlink – Tennessee
Charter Fiberlink TX-CCO
Bresnan Broadband of Utah, LLC
Charter Fiberlink VT-CCO
Charter Fiberlink VA-CCO
Charter Fiberlink WA-CCVII
Bresnan Broadband of Wyoming

Part 63 – International Section 214 Authorizations

File No.	Authorization Holder	Authorization Number
ITC-T/C-20150625-00159	CC Fiberlink, LLC	ITC-214-20030127-00070
ITC-T/C-20150625-00158	CCO Fiberlink, LLC	ITC-214-20060309-00144
ITC-T/C-20150625-00157	CCVII Fiberlink LLC	ITC-214-20060309-00145
ITC-T/C-20150625-00156	Charter Fiberlink CC VIII, LLC	ITC-214-20090313-00122
ITC-T/C-20150625-00154	Bresnan Digital Services, LLC	ITC-214-20061117-00525

TIME WARNER CABLE LICENSES AND AUTHORIZATIONS

Part 78 – Cable Television Relay Service (CARS)

File No.	Licensee	Call Sign
CAR-20150630BE-09	Oceanic Time Warner Cable, LLC	WAE-470
CAR-20150630BF-09	Oceanic Time Warner Cable, LLC	WAE-478
CAR-20150630BG-09	Oceanic Time Warner Cable, LLC	WAX-743
CAR-20150630BH-09	Oceanic Time Warner Cable, LLC	WBM-742
CAR-20150630BI-09	Oceanic Time Warner Cable, LLC	WBM-744
CAR-20150630BJ-09	Oceanic Time Warner Cable, LLC	WLY-376
CAR-20150630BK-09	Oceanic Time Warner Cable, LLC	WLY-402
CAR-20150630BL-09	Oceanic Time Warner Cable, LLC	WLY-415
CAR-20150630BM-09	Oceanic Time Warner Cable, LLC	WLY-713
CAR-20150630BN-09	Time Warner Cable Pacific West LLC	KB-60101
CAR-20150630BO-09	Time Warner Cable Pacific West LLC	KD-55007
CAR-20150630BP-09	Time Warner Cable Pacific West LLC	WAE-606
CAR-20150630BQ-09	Time Warner Cable Pacific West LLC	WHZ-293
CAR-20150630BR-09	Time Warner Cable Pacific West LLC	WHZ-301
CAR-20150630BT-09	Time Warner Cable Pacific West LLC	WLY-662
CAR-20150630BU-09	Time Warner Cable Pacific West LLC	WLY-893
CAR-20150630BV-09	Time Warner Cable Midwest, LLC	KD-55034
CAR-20150701AA-09	Time Warner Cable Northeast LLC	KB-60127
CAR-20150701AB-09	Time Warner Cable Northeast LLC	KD-55003
CAR-20150701AC-09	Time Warner Cable Northeast LLC	KD-55027
CAR-20150701AD-09	Time Warner Cable Northeast LLC	KD-55031
CAR-20150701AE-09	Time Warner Cable Northeast LLC	WLY-609
CAR-20150701AF-09	Time Warner Cable Northeast LLC	WLY-852
CAR-20150701AG-09	Time Warner Cable New York City LLC	KD-55028
CAR-20150701AH-09	Time Warner Cable Southeast LLC	KD-55024
CAR-20150701AI-09	Time Warner Cable Southeast LLC	KD-55026
CAR-20150701AJ-09	Time Warner Cable Southeast LLC	WLY-235

Parts 87, 90 and 101 – Private Wireless Licenses

File No.	Licensee	Lead Call Sign
0006842582	Oceanic Time Warner Cable LLC	WQQS791
0006842587	Time Warner Cable Enterprises LLC	WQJU341
0006842589	Time Warner Cable Midwest LLC	WPAJ330
0006842592	Time Warner Cable New York City LLC	WPOB447
0006842596	Time Warner Cable Northeast LLC	KP3939
0006842599	Time Warner Cable Pacific West LLC	KBL655
0006842601	Time Warner Cable Southeast LLC	KTK417

Part 25 – Satellite Communications Licenses

File No.	Licensee	Call Sign
SES-T/C-20150701-00438	Time Warner Cable Southeast LLC	E020012
		E020045
		E070058
		E070059
		E070060
SES-T/C-20150701-00439	Time Warner Cable Northeast LLC	E020046
		E020162
		E030142
		E040258
		E040450
		E050253
SES-T/C-20150701-00440	Time Warner Cable Texas LLC	E120088
		E140111
SES-T/C-20150701-00441	Time Warner Cable Midwest LLC	E020130
		E040257
SES-T/C-20150701-00442	Time Warner Cable New York City LLC	E010308
SES-T/C-20150701-00443	Oceanic Time Warner Cable LLC	E080200

Part 63 – Domestic Section 214 Authority

Blanket Domestic Section 214 Authority

Time Warner Cable Business LLC
DukeNet Communications, LLC
Time Warner Cable Information Services (Alabama), LLC
Time Warner Cable Information Services (Arizona), LLC
Time Warner Cable Information Services (California), LLC
Time Warner Cable Information Services (Colorado), LLC
Time Warner Cable Information Services (Hawaii), LLC
Time Warner Cable Information Services (Idaho), LLC
Time Warner Cable Information Services (Illinois), LLC
Time Warner Cable Information Services (Indiana), LLC
Time Warner Cable Information Services (Kansas), LLC
Time Warner Cable Information Services (Kentucky), LLC
Time Warner Cable Information Services (Maine), LLC
Time Warner Cable Information Services (Massachusetts), LLC
Time Warner Cable Information Services (Michigan), LLC
Time Warner Cable Information Services (Missouri), LLC
Time Warner Cable Information Services (Nebraska), LLC
Time Warner Cable Information Services (New Hampshire), LLC
Time Warner Cable Information Services (New Jersey), LLC
Time Warner Cable Information Services (New Mexico), LLC
Time Warner Cable Information Services (New York), LLC
Time Warner Cable Information Services (North Carolina), LLC
Time Warner Cable Information Services (Ohio), LLC
Time Warner Cable Information Services (Pennsylvania), LLC
Time Warner Cable Information Services (South Carolina), LLC
Time Warner Cable Information Services (Tennessee), LLC
Time Warner Cable Information Services (Texas), LLC
Time Warner Cable Information Services (Virginia), LLC
Time Warner Cable Information Services (Washington), LLC
Time Warner Cable Information Services (West Virginia), LLC
Time Warner Cable Information Services (Wisconsin), LLC

Part 63 – International Section 214 Authorizations

File No.	Authorization Holder	Authorization Number
ITC-T/C-20150702-00164	TWCIS HoldCo LLC	ITC-214-20030117-00043
ITC-T/C-20150702-00165	Insight Midwest Holdings, LLC	ITC-214-20040723-00514

BRIGHT HOUSE LICENSES AND AUTHORIZATIONS

Part 78 – Cable Television Relay Service (CARS)

File No.	Licensee	Call Sign
CAR-20150701AK-09	Bright House Networks, LLC	KA-80616
CAR-20150701AL-09	Bright House Networks, LLC	KD-55009
CAR-20150701AM-09	Bright House Networks, LLC	KD-55011
CAR-20150701AN-09	Bright House Networks, LLC	WHZ-396
CAR-20150701AO-09	Bright House Networks, LLC	WHZ-652

Parts 87, 90 and 101 – Private Wireless Licenses

File No.	Licensee	Lead Call Sign
0006834557	Bright House Networks, LLC	KBR969

Part 25 – Satellite Communications Licenses

File No.	Licensee	Call Sign
SES-T/C-20150702-00448	Bright House Networks, LLC	E060061 E060137 E060138 E070009 E980521 E990035

Part 63 – Domestic Section 214 Authority

Blanket Domestic Section 214 Authority

Bright House Networks, LLC
Bright House Networks Information Services (Alabama), LLC
Bright House Networks Information Services (California), LLC
Bright House Networks Information Services (Indiana), LLC
Bright House Networks Information Services (Florida), LLC
Bright House Networks Information Services (Michigan), LLC

Part 63 – International Section 214 Authorizations

File No.	Authorization Holder	Authorization Number
ITC-T/C-20150625-00155	Bright House Networks Information Services (Florida), LLC	ITC-214-20090525-00246

APPENDIX B

Conditions

I. INTRODUCTION

To address the potential harms posed and confirm certain benefits offered by the transaction and the Applicants, the Company will be subject to certain Conditions imposed by the Commission. The Conditions set forth in this Appendix B shall not preclude the Company from undertaking reasonable network management or complying with the requirements under the Digital Millennium Copyright Act.

II. DEFINITIONS

"Company" or "Charter" or "New Charter" means: (i) Charter, Bright House Networks, and Time Warner Cable, both individually and collectively; (ii) any affiliate or subsidiary directly or indirectly controlled by New Charter, Charter, Bright House Networks, and Time Warner Cable;[1] or (iii) the combined entity of the Applicants as of the Closing Date; and (iv) any successor-in-interest of New Charter, Charter, Bright House Networks, and Time Warner Cable.

"Broadband Internet Access Service" or "BIAS" will have the meaning given by 47 CFR § 8.11(a).

"Closing Date" means the date on which the acquisitions and mergers among and between Charter, Bright House Networks, and Time Warner Cable occur.

"Executive Officers" means an executive officer of the Company as defined by 17 CFR § 240.3b-7.

"Interconnection Agreement" means an agreement to exchange Internet traffic between the Company and an Interconnection Party.

"Interconnection Party" means any person that interconnects with the Company at an Interconnect Exchange Point.

"Interconnect Exchange Point" means a physical location where different networks connect to exchange Internet traffic.

"Mass market" means a "service marketed and sold on a standardized basis to residential customers, small businesses, and other end-user customers such as schools and libraries." *See Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, 5683, para. 189 (2015) (citations omitted).

"MVPD" means a Multichannel Video Programming Distributor as that term is defined in 47 CFR § 76.1200(b).

"Person" means any natural person, corporate entity, association, partnership, joint stock company, trust, unincorporated association, joint venture, limited liability company or other entity, or a government or any political subdivision or agency thereof.

"Point of Presence" or "POP" means an Interconnect Exchange Point designated by the Company.

"Video Programming" means programming provided by, or generally considered comparable to programming provided by, a television broadcast station or cable network, regardless of the medium or method used for distribution, and includes but is not limited to: programming prescheduled by the

[1] Notwithstanding any of the above, the Conditions set forth in this Appendix B shall not apply to any Person in which the Company has less than a majority ownership interest if that Person does not provide BIAS or MVPD services.

programming provider (also known as scheduled programming or a linear feed); programming offered to viewers on an on-demand, point-to-point basis (also known as VOD or PPV); short programming segments (also known as clips); programming that includes multiple video sources (also known as feeds, including camera angles); programming that includes video in different qualities or formats (including high-definition, 3D and 4K); and films.

III. SETTLEMENT-FREE INTERCONNECTION CONDITION

1. Introduction. This Condition ensures that the Company will fulfill Charter's commitment to offer interconnection between its IP network and other large IP networks, including backbone Internet providers, content delivery networks (CDNs), and edge providers. After a thorough review of the record, we find that the transaction will likely increase edge providers' interconnection costs, and New Charter will gain the ability to harm online video distributors. In order to protect edge providers from transaction-specific harms we adopt this Condition. We further find that granting the Application subject to the interconnection-specific Condition set forth here, which renders the Applicants' commitments meaningful and enforceable, is in the public interest.

2. Conditions.

    a. Commencing on the Closing Date, and ending on the seventh anniversary of the Closing Date, or as otherwise adjusted by the Commission under the terms of this Appendix B, the Company shall enter into an Interconnection Agreement consistent with the terms set forth in Attachment 1 with any Person that qualifies under the terms of Attachment 1.

    b. The Company shall post Attachment 1 on a publicly accessible webpage, available without charge to a Person viewing it, associated with its networks operations group.

    c. Individual Contracting. Nothing in this Condition precludes the Company and a Person from voluntarily entering into an Interconnection Agreement with different terms than elaborated in this Condition. However, any such Interconnection Agreement with a Person that qualifies under the terms set forth in Attachment 1 shall:

        i. Not contain terms that are materially less favorable to the Interconnection Party than the correlating terms set forth in Attachment 1;

        ii. Not lower the data transfer growth rates specified in the "Suspension" portion of Attachment 1 (i.e., "10% or more in any calendar month compared to any prior calendar month; or at least 8% per month over a rolling 6 month period; or 5.9% over a rolling 6 month period for a company whose traffic constitutes 30% or more of the total traffic in the dominant direction on New Charter's Network");

        iii. Permit "any portion of that incremental traffic that was previously being delivered to New Charter by third parties" to be exempt from calculating the data transfer growth rate, including the rates in the "Suspension" portion of Attachment 1, and permit that in the event that the Interconnection Party begins conveying data to or from New Charter that was previously conveyed to or from New Charter by a third party, the parties shall account for this additional data transfer as the Interconnecting Party's own for the purposes of measuring growth rates during subsequent measuring periods; and

        iv. Not limit the relief available to the Interconnection Party in the event of a breach, except that an Interconnection Agreement may include standard contractual provisions limiting the types of damages available for breach of contract (e.g., by limiting the availability of consequential, incidental, general, indirect, or punitive damages).

d. Points of Presence. The Company may designate additional Points of Presence, but shall not remove any Points of Presence from the list contained in Attachment 1.

e. Enforcement.

i. Any Person seeking an Interconnection Agreement with the Company who is aggrieved by a failure by the Company to comply with this Condition, including the terms of Attachment 1, may seek redress from the Commission.[2]

ii. In the event that a dispute arises between the parties to an Interconnection Agreement to a contract entered into pursuant and subject to this Condition, that dispute shall be addressed to a court of competent jurisdiction or as otherwise provided in said Agreement.

3. Reporting. Within ninety (90) days after the Closing Date, and quarterly thereafter, the Company shall submit until the seventh anniversary of the Closing Date, or as otherwise adjusted by the Commission under the terms of this Appendix B, ("Interconnection Reporting Period") a detailed report that sets forth the following information:

a. All Interconnection Parties that have reached Interconnection Agreements with the Company under the terms of this Condition;

b. Information for each Interconnect Exchange Point, which shall include, as of the date that is the last day of the calendar quarter preceding the Report:

i. Each Interconnection Party interconnected with the Company at that Interconnect Exchange Point;

ii. For each Interconnection Party, the aggregate link capacity between the Company and each Interconnection Party at that Interconnect Exchange Point;

iii. For each Interconnection Party, traffic exchange, in each direction, as measured by the 95th percentile method; and

iv. For each port through which traffic is exchanged with an Interconnection Party, the percentage time within the reporting period that the port was over 75% capacity in the dominant direction.

c. Reports shall be filed in machine readable format, and shall include, at a minimum, the following information, in a similar format as shown below:

[2] For example, Persons seeking redress may file with the Commission a Petition for Declaratory Ruling pursuant to 47 CFR § 1.2 or a Section 208 formal complaint pursuant to 47 CFR §§ 1.720-1.736, as appropriate. There may also be instances where Persons may avail themselves of the Open Internet procedures for formal complaints, 47 CFR §§ 8.12-8.17, which govern, *inter alia*, certain Internet traffic exchange disputes (*see Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, 5713 para. 252 (2015)).

Chicago POP		
Interconnection Party A: 10G (Jan. 1, 2015 to Mar. 30, 2015)		
Month	Upstream	Downstream
Jan. 2015	1.53 Gbps	5.71 Gbps
Feb. 2015	1.62 Gbps	5.92 Gbps
Mar. 2015	1.75 Gbps	6.17 Gbps
Interconnection Party B: 240 G (Jan. 1, 2015 to Mar. 15, 2015) 300 G (Mar. 16, 2015 to Mar. 30, 2015)		
Month	Upstream	Downstream
Jan. 2015	2.53 Gbps	165.5 Gbps
Feb. 2015	3.27 Gbps	175.2 Gbps
Mar. 2015	3.41 Gbps	180.3 Gbps

d. In addition, for the duration of the Interconnection Reporting Period, the Company shall submit annually to the Commission's Office of General Counsel a report from the Independent Compliance Officer addressing whether the Company has complied with this Condition. The first such report shall be submitted no later than ninety (90) days after the date that is one year after the Closing Date.

4. Disclosure of Internet Interconnection Agreements. Commencing on the Closing Date and ending on the seventh anniversary, or as otherwise adjusted by the Commission under the terms of this Appendix B, that date, absent any extension under the terms of this Appendix B, the Company shall comply with the following:

   a. The Company shall submit all Interconnection Agreements within thirty (30) days of execution, in accordance with the filing and service requirements set forth in Section IX.5 herein, entered for the exchange of Internet traffic, between the Company's network that carries Broadband Internet Access Service traffic and the Interconnection Party, at Interconnect Exchange Points located within the United States, unless the aggregate capacity of the interconnection links between the Company and an Interconnection Party is less than 30 Gbps.

   b. Within thirty (30) days of the Closing Date, in accordance with the filing and service requirements set forth in Section IX.5 herein, the Company shall submit all existing agreements for the exchange of traffic, between the Company's network that carries Broadband Internet Access Service traffic and an Interconnection Party, at Interconnect Exchange Points located within the United States, unless the aggregate capacity of the interconnection links between the Company and an Interconnection Party is less than 30 Gbps.

IV. DATA CAPS AND USAGE-BASED PRICING CONDITION

1. Introduction. We find that as a result of the transaction, the Company will have an increased incentive to discriminate against online video distributors which could have the effect of harming video competition. One manner to limit such access is the imposition of data caps and usage-based allowances at levels intended to blunt competition from online video distributors. The purpose of this Condition is to address the incentive and ability to use data caps and other usage based practices against video content delivered to customers through wired BIAS. The Condition eliminates the risk that that the Company will use its BIAS to engage in practices that favor its own or affiliated video content.

2. Conditions. Commencing on the Closing Date, and ending on the seventh anniversary of the Closing Date, or as otherwise adjusted by the Commission under the terms of this Appendix B, the Company shall not offer any fixed mass market BIAS plans that subject mass market BIAS customers to data caps or any other usage-based pricing mechanisms. Nothing herein shall require the Company to provide, or continue to provide, a residential BIAS plan to a business operating from a property zoned for commercial use (e.g., enterprise customers and restaurants). Usage-based pricing mechanisms include, but are not limited to, the following actions:

    a. charging fixed mass market BIAS customers different prices based on the amount of data consumed;

    b. preventing fixed mass market BIAS customers from consuming data beyond a certain threshold;

    c. imposing additional fees on fixed mass market BIAS customers who consume data beyond a certain threshold;

    d. requiring fixed mass market BIAS customers who have consumed data beyond a certain threshold to upgrade to a higher priced service product, except that this Condition IV.2.d. shall not apply to a fixed mass market BIAS customer who, after an opportunity to discuss with the Company, is reasonably found by the Company to be: 1) not primarily using its BIAS to consume edge provider traffic in the downward direction; and either 2) running a server to upload or exchange large volumes of traffic in a manner that is not consistent with residential use; or 3) using, and/or enabling others to use, a BIAS data plan to operate any type of business or commercial enterprise (indicia of commercial usage include, without limitation, sending and receiving high volumes of symmetrical traffic and not consuming traffic in a typical residential manner where the majority of traffic travels in downward direction); or

    e. impairing or otherwise degrading the speed or quality of the customer's fixed mass market BIAS connection once the customer surpasses a certain data consumption threshold or consumes a certain amount of data.[3]

3. Reporting. For the duration of this Condition, the Company shall submit a report in accordance with the filing and service requirements set forth in Section IX.5 herein on a semi-annual basis, with the first such report to be submitted within six (6) months after the Closing Date. Each such report will include the following:

[3] For avoidance of doubt, nothing in this Section IV shall be construed to prevent the Company from taking any action consistent with reasonable network management or to comply with the requirements under the Digital Millennium Copyright Act.

a. a description, including any terms and conditions, of any data caps or usage-based pricing mechanism proposed to any of the Company's Executive Officers or Directors, or planned by the Company; and

b. any other reasonable information the Independent Compliance Officer determines is reasonably necessary to report as required by this Condition.

V. RESIDENTIAL BUILD-OUT CONDITION

1. Introduction. The Applicants have offered to invest in residential broadband facilities. The purpose of this Condition is to ensure the promised public benefits as a result of such investment will inure to consumers. This Condition also provides an opportunity for increased competition from services that rely on wired BIAS to deliver video by creating more customer locations or more service options that can receive higher speed broadband service.

2. Condition.

   a. Within five (5) years of the Closing Date, in accordance with the timing requirements set forth in subparts 2.a.(i) through 2.a.(v) below and the composition requirements in subpart 2.b, the Company shall pass, deploy and offer BIAS capable of providing at least a 60 Mbps download speed to at least 2 million additional mass market customer locations,[4] such as those occupied by residences, home offices, and very small businesses (and excluding locations occupied by large enterprises and institutions other than schools and libraries), than the Company passes as of the monthly Closing Date for each Applicant for the month prior to which the Closing Date occurs:

      i. By twelve (12) months after the Closing date the Company shall expand its Broadband Internet Access Service to at least 150,000 of the aforementioned customer locations;

      ii. By December 31, 2017, the Company shall expand its Broadband Internet Access Service to at least 400,000 of the aforementioned customer locations;

      iii. By December 31, 2018, the Company shall expand its Broadband Internet Access Service to at least 800,000 of the aforementioned customer locations;

      iv. By December 31, 2019, the Company shall expand its Broadband Internet Access Service to at least 1.2 million of the aforementioned customer locations;

      v. By December 31, 2020, the Company shall expand its Broadband Internet Access Service to at least 1.6 million of the aforementioned customer locations; and

      vi. Within five (5) years of the Closing Date the Company will complete the aforementioned deployment to all 2 million customer locations.

   b. The aforementioned 2 million additional mass market customer locations shall include at least 1 million mass market customer locations (hereinafter "out-of-footprint locations") where:

      i. at least one other BIAS provider offers, before or within 12 months of the Company's deployment at such location, 25 Mbps or faster advertised service in the downward direction to the same mass market customer location; and

[4] For purposes of this Order and these Conditions, "customer locations" exclude enterprise customers and broadband-connected locations such as gates, ATMs, and elevators.

ii. the customer location is in an area where the Company does not have existing facilities as of the Closing Date.

c. A mass market customer location is passed for purposes of this Condition where the Company does, or could, within a typical service interval (7 to 10 business days), without an extraordinary commitment of resources, provision two-way data transmission to and from the Internet capable of a download speed of at least 60 Mbps.

d. A mass market customer location is considered to be in an area where the Company does not have existing facilities as of the Closing Date under subpart 2.b.ii. when it is located in a census block that the Applicants did not list as a census block in their respective December 2015 Form 477 filings (including corrective filings submitted as of the Closing Date) in which the Company did, or could have, within a typical service interval (7 to 10 business days), without an extraordinary commitment of resources, provision two-way data transmission to and from the Internet.

e. The Commission's Office of General Counsel will also credit newly passed mass market customer locations in other census blocks as being in an area where the Company does not have existing facilities as of the Closing Date if the Company demonstrates that:

i. the newly passed mass market customer location lies beyond the Company's nodes deployed as of the Closing Date; and

ii. the nodes deployed as of the Closing Date are incapable of supporting 60 Mbps service in the downward direction to the newly passed mass market customer location because the nodes deployed as of the Closing Date are located too far from the newly passed mass market customer location to make 60 Mbps service possible (but not if this inability is due to the nodes' capacity or density limitations or where node-splitting would enable the provision of 60 Mbps service in the downward direction from the location of any node deployed as of the Closing Date).

f. The Company may not use, receive, or request any Connect America Funds ("CAF") for the investments required to satisfy, in whole or in part, the deployment of the additional 2 million mass market customer locations required under this buildout Condition or for operating expenses for such locations after such are deployed. Specifically, 2 million geocoded locations reported for purposes of these Conditions cannot be counted towards satisfying any CAF requirements.[5]

g. The Company may not use the acquisition of other BIAS providers to satisfy, in whole or in part, the deployment of the additional 2 million mass market customer locations required under this Condition, except that for mass market customer locations that would otherwise qualify as out-of-footprint locations, the Commission will credit no more than 250,000 mass market customer locations towards the out-of-footprint locations requirement of subpart 2.b. when the Company acquires BIAS providers and upgrades them to 60 Mbps or faster service in the downward direction if the relevant passings of those BIAS providers meet the following requirements at the time of purchase: (i) they are not capable of providing speeds of at least 25 Mbps in the downward direction; (ii) they compete against one or more wireline BIAS providers offering at least 25 Mbps in the downward direction; and (iii) they would be unlikely to be upgraded by the acquired

[5] This would include but is not limited to any of the Connect America Fund ("CAF") programs, as well as any other Universal Service Fund ("USF") programs that the Commission may implement at a future date.

BIAS provider to offer 60 Mbps or faster service in the downward direction by 2020 due to technical or financial limitations.

3. Reporting. The Company shall submit a report in accordance with the filing and service requirements set forth in Section IX.5 herein on a semi-annual basis that describes its compliance with this Condition, with the first such report to be submitted six (6) months after the Closing Date in a format and containing data fields approved and/or selected by the Commission's Office of General Counsel, which shall include at least the following, in electronic format:

    a. The number of additional new mass market customer locations to which Broadband Internet Access Service has been deployed on a monthly basis during the reporting period ending as of June 30 for reports submitted in the second half of each year and ending as of December 31 for reports submitted in the first half of each year;

    b. The number of additional new out-of-footprint locations to which Broadband Internet Access Service has been deployed on a monthly basis during the reporting period;

    c. A CSV (comma separated values) file or other form approved by the Commission staff providing for each location to which Broadband Internet Access Service has been deployed in satisfaction of this Condition, including information identifying:

        i. for mass market customer locations:

            (A) latitude and longitude;

            (B) alternative address and/or location information;

            (C) unit or apartment identifier where applicable;

            (D) the date the Company passed the location and began to offer BIAS capable of providing at least a 60 Mbps download speed; and

            (E) 15-digit census block code;

        ii. additionally for out-of-footprint locations:

            (A) the identity of the other BIAS provider offering 25 Mbps or faster advertised service in the downward direction to the same mass market customer location;

            (B) the maximum advertised downstream bandwidth speed that each of the other BIAS providers offer; and

            (C) if the other BIAS provider begins to offer service after the Company's deployment to the out-of-footprint location, then the date the other BIAS provider began offering or advertising 25 Mbps or faster service in the downward direction;

        iii. additionally for out-of-footprint locations where the Company seeks credit pursuant to subpart 2.e:

            (A) the location, capacity, and density of all nodes deployed as of the Closing Date within a set radius, to be determined by the Commission's Office of General Counsel, of any new mass market customer location to which BIAS has been deployed or, if there are no such nodes, the closest node deployed as of the Closing Date.

    d. GIS data for the mass market customer locations, the out-of-footprint customer locations, and the nodes required to be identified pursuant to this Condition's reporting requirements;

e. Any explanatory notes as required;

f. Any other information the Independent Compliance Officer or the Commission's Office of General Counsel determines is reasonably necessary to report on compliance with this Condition; and

g. In the first such report, the Company's June 2015 and December 2015 Form 477 filing and the number of existing mass market customer locations as of the Closing Date for each Applicant for the month prior to which the Closing Date occurs where the Company offers Broadband Internet Access Service.

4. Enforcement. Failure to comply with this Condition may result in:

a. extension of all of the Conditions set forth in this Appendix B until completion of the required buildout;

b. a 5% increase in the total number of mass market customer locations that must be passed for each year an incremental target listed in subparts 2.a.(i) through 2.a.(vi) is missed; and

c. a 5% increase in the minimum number of out-of-footprint locations that must be passed for each year an incremental target listed in subparts 2.a.(i) through 2.a.(vi) is missed.

VI. DISCOUNTED BROADBAND SERVICES OFFER

1. Introduction. We find it is in the public interest to ensure that a bundle of video and broadband services is not the consumer's only competitive choice, and this protection may be particularly important for low-income subscribers who may not be able to afford bundled services. Thus, we impose this Condition to ensure an affordable, low-price standalone broadband service is available to low-income consumers in the Company's wireline footprint.

2. Condition.

a. Within six (6) months of the Closing Date, the Company shall begin offering a reduced price broadband service to low income families to make broadband access more affordable to them (the "Discounted Broadband Services Offer") and, within a year of the closing date, will offer this service through the Company's footprint where 30 Mbps wireline BIAS is technically available. The Company shall offer year-round, with no limitations imposed on enrollment periods or terms, fixed Broadband Internet Access Service with download speeds of at least 30/4 Mbps and a cable modem to any Eligible Enrollee who does not have an Eligibility Restriction in the Company's footprint for no more than $14.99 per month. The Company shall submit a written filing with the Commission, within five (5) months of the Closing Date, specifying those markets (including all Charter, Time Warner Cable and Bright House Networks footprints) where 30/4 Mbps wireline Broadband Internet Access Service is not technically available. As part of this offer, the Company shall offer an in-home Wi-Fi router at a price no higher than $5.00 per month, offer a free-self-installation kit, and waive customary router installation and activation fees.[6]

b. "Eligible Enrollee" is a potential enrollee meeting the "Eligibility Requirements" of either (i) having at least one child who participates in the National School Lunch Program

[6] The Company may charge installation fees to the extent that an Eligible Enrollee requests on-site assistance from the Company, either for installation or other technical assistance with the service. In homes where self-installation is not available, the Company will waive the installation fee.

("NSLP"), subject to annual recertification; or (ii) being a senior age 65 or older receiving Supplemental Security Income ("SSI") program benefits, subject to annual recertification.

c. "Eligibility Restrictions" are having (i) outstanding debt for the Company's services that was incurred within one (1) years prior to the enrollee's request for service under the Discounted Broadband Services Offer; (ii) subscribed to the Company's Fixed Broadband Internet Access Services within sixty (60) calendar days prior to requesting services under the Discounted Broadband Services Offer; or (iii) outstanding debt that is incurred for the Discount Broadband Services Offer and that is subject to the Company's ordinary debt collection procedures.

d. The Company shall offer the discounts set forth in this Condition for at least four (4) years from the commencement of the Discounted Broadband Services Offer. For qualifying households that sign up for the Discounted Broadband Services Offer during the final year of the Discounted Broadband Services Offer, the Company shall provide service pursuant to the Discounted Broadband Services Offer for at least twelve (12) months.

    i. After three (3) years from the commencement of the Discounted Broadband Services Offer, the Company may increase the monthly fee for the Discounted Broadband Services Offer by no more than $3 (i.e., charging no more than $17.99 per month).

e. Qualifying households shall be provided a self-installation kit free of charge and shall not be required to pay modem fees, WiFi router activation fees, or installation fees (unless installation requires a technician's visit on-site).[7]

f. For the period during which this Condition is in effect, the Company shall clearly and conspicuously market the Discounted Broadband Services Offer, including but not limited to, undertaking the following actions:

    i. Providing on the Company's consumer-facing homepage a link to a webpage devoted to describing the Discounted Broadband Services Offer; and

    ii. Ensuring that prior to interacting with prospective customers, and on an annual basis thereafter, a targeted set of the Company's customer service representatives is trained to inform consumers of the availability of the Discounted Broadband Services Offer, including pricing, and terms and conditions as described in this Condition.

g. The Company shall establish and maintain a dedicated phone number prospective participants can call in order to verify eligibility for the Discounted Broadband Services Offer and, subject to confirmation, to register for the program if eligible.

h. The Company shall submit a written report in accordance with the filing and service requirements set forth in Section IX.5 herein on a semi-annual basis that includes a description of the Company's compliance with the Condition, with the first such report to be submitted twelve (12) months after the Closing Date. The Company Compliance Officer shall regularly track the program's implementation, and file the semi-annual report. The report must be signed by this officer and shall include the following, as of the date of the report:

[7] Eligible Enrollees may, but shall not be required to, rent a Wi-Fi router from the Company at a price of no higher than $5.00 per month. Eligible Enrollees may also purchase a Wi-Fi router at their own expense.

i. the total number of households enrolled and receiving service in the Discounted Broadband Services Offer on a monthly basis; and

ii. the total number of estimated households eligible to participate in the Discounted Broadband Services Offer on a monthly basis.

i. The Company shall enroll participating households into the Discounted Broadband Services Offer as follows:

i. at least 25,000 households enrolled and receiving service by the end of the 12th month after the Closing Date;

ii. at least 100,000 households enrolled and receiving service by the end of the 18th month after the Closing Date;

iii. at least 225,000 households enrolled and receiving service by the end of the 24th month after the Closing Date;

iv. at least 475,000 households enrolled and receiving service by the end the 36th month after the Closing Date; and

v. at least 525,000 households enrolled and receiving service by the end the 48th month after the Closing Date.

j. The Company, on its own initiative, may eliminate or relax the Eligibility Restrictions.

k. If the Company fails to meet the applicable enrollment and participation goal in any reporting period, then the Company, in its semi-annual report, shall enumerate those steps it plans to take to meet the enrollment requirements.

3. Enforcement.

a. If the Company fails to meet an enrollment target identified in subpart 2.i., then on the first such failure, the Company shall expand eligibility in the Discounted Broadband Services Offer to include as potential enrollees those living in a household where at least one individual participates in the Supplemental Nutrition Assistance Program ("SNAP"), subject to annual recertification.

b. If the Company fails to comply with the Discounted Broadband Services Offer Condition identified herein (except for the first failure to meet an enrollment target identified in subpart 2.i.), then such a failure may result in the extension of the terms, in their entirety, of the Discounted Broadband Services Offer Condition for an additional period of time that is no more than the length of the period of the Company's non-compliance with the Condition.

VII. CONTINUED SUPPORT OF CONSUMER-OWNED DEVICES CONDITION

1. Purpose. This Condition is intended to ensure that New Charter subscribers will retain options for accessing cable video programming on retail set-top boxes and other navigation devices purchased from vendors that are not affiliated with an MVPD. Pending the development and implementation of new standards that will assure a commercial market for competitive navigation devices, we believe it is important that New Charter honor its stated commitment to continue to

purchase, distribute, and service CableCARDs so that its subscribers continue to have alternatives to leasing equipment from their cable provider.[8]

2. Condition. Subject to 2.a.-e. of this Condition, the Company shall continue to provide CableCARDs to any new or existing subscriber that requests a CableCARD for use in a third-party retail device. Subject to 2.a.-e. of this Condition, the Company shall continue to support CableCARD devices.

    a. For purposes of this Condition, "support" means that the Company shall comply with the following requirements:

        i. The Company shall continue to simulcrypt its QAM-delivered linear video programming so that all third-party CableCARD devices remain operable pursuant to the following standards:[9]

            (A) SCTE 40 2003: "Digital Cable Network Interface Standard," provided however that with respect to Table B.11, the Phased Noise requirement shall be minus 86dB/Hz and all provided that the "transit delay for most distant customer" requirement in Table B.3 is not mandatory;

            (B) ANSI/SCTE 65 2002: "Service Information Delivered Out-of-Band for Digital Cable Television," provided however that the referenced Source Name Subtable shall be provided for Profiles 1, 2, 3;

            (C) ANSI/SCTE 54 2003: "Digital Video Service Multiplex and Transport System Standard for Cable Television" provided that:

                1. for each digital transport stream that includes one or more services carried in-the-clear, such transport stream shall include virtual channel stream in-band in the form of ATSC Document A/65B: "ATSC Standard: Program and System Information Protocol for Terrestrial Broadcast and Cable (Revision B)," when available from the content provider:

                    a. The data shall, at a minimum, describe services carried in the transport stream carrying the PSIP data itself;

                    b. PSIP data describing a 12-hour time period shall be carried for each service in the transport stream. This 12-hour period corresponds to delivery of the following event information tables: EIT-0, -1, -2, -3;

                    c. The format of event information data shall conform to ATSC Document A/65 B: "ATSC Standard: Program and System Information Protocol for Terrestrial Broadcast and Cable (Revision B)," (incorporated by reference *see* Section 76.602);

                    d. Each channel shall be identified by a 1- or 2-part channel number and a textual channel name; and

[8] *See* Letter from Samuel L. Feder, Counsel for Charter Communications, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Feb. 9, 2016).

[9] CableCARDs cannot decrypt Internet protocol (IP)-delivered video programming, and this Condition is not intended to prevent the Company from migrating channels to IP.

e. The total bandwidth or PSIP data may be limited by the cable system to 80 kilobytes per second for a 27 MBits multiplex and 115 kilobytes per second for 38.8 MBits multiplex.

2. when service information tables are transmitted out-of-band for scrambled services:

a. The data shall, at a minimum, describe services carried within the transport stream carrying the PSIP data itself;

b. A virtual channel table shall be provided via the extended channel interface from the POD module. Tables to be included shall conform to ANSI/SCTE 65 2002: "Service Information Delivered Out-of-Band for Digital Cable Television;"

c. Event information when present shall conform to ANSI/SCTE 65 2002: "Service Information Delivered Out-of-Band for Digital Cable Television;"

d. Each channel shall be identified by a 1- or 2-part channel number and a textual channel names; and

e. The channel number identified with out-of-band signaling information data should match the channel identified within-band PSIP data or all unscrambled in-the-clear services;

(D) SCTE 28 2003: "Host-POD Interface Standard";

(E) ANSI/SCTE 41 2003: "POD Copy Protection System"; and

ii. The Company shall comply with the CableCARD requirements set forth in Sections 76.1205 and 76.1602 of the Commission's rules, including, but not limited to, continued support of CableCARD self-installation (47 CFR § 76.1205(b)(1)), M-Card (47 CFR § 76.1205(b)(2)), switched digital video solutions (47 CFR § 76.1205(b)(4)), uniform CableCARD fees (47 CFR § 76.1205(b)(5)(ii)(B)(*1*)), and the bring-your-own-box discount requirement (47 CFR § 76.1602(b)(7), (8)).[10]

b. The Company shall include both (i) a DVI or HDMI interface, and (ii) a connection capable of delivering recordable high-definition video and closed captioning data in an industry standard format on all high-definition set-top boxes, except unidirectional set-top boxes without recording functionality, acquired by the Company for distribution to its subscribers. In addition, the Company shall ensure that such high-definition set-top boxes comply with an open industry standard that provides for audiovisual communications including service discovery, video transport, and remote control command pass-through standards for home networking. The Company's compliance with 2.b. of this Condition shall be limited to Charter's pre-transaction footprint as it exists on the Closing Date.

[10] In order to ensure that the Company's subscribers can continue to use retail CableCARD equipment as an alternative to leasing equipment from it, the Company shall comply with CableCARD requirements set forth in sections 76.1205 and 76.1602 (47 CFR §§ 76.1205 & 76.1602) irrespective of the D.C. Circuit's decision in *EchoStar Satellite LLC v. FCC*, 704 F.3d 992 (D.C. Cir 2013).

c. The CableCARD support requirements in this Condition shall expire seven (7) years after the Closing Date. The CableCARD provisioning requirements shall expire four (4) years after the Closing Date.

d. Notwithstanding Section 2.c. of this Condition, this Condition shall expire when (i) the Company's subscribers are able to purchase a third-party retail device that can access the Company's video programming pursuant to any new or modified rules the Commission adopts to implement Section 629 of the Communications Act of 1934, as amended, and (ii) the Company submits to the Media Bureau a declaration in MB Docket No. 15-149, under penalty of perjury, attesting to and accompanied by documentation demonstrating that at least one manufacturer, retailer, or other vendor not affiliated with any multichannel video programming distributor has made available for purchase, to subscribers throughout the Company's entire footprint, a device that can access multi-channel video programming and other services offered by the Company pursuant to any new or modified rules the Commission adopts to implement Section 629 of the Communications Act of 1934, as amended. Additionally, notwithstanding Section 2.c of this Condition or the above, this Condition shall expire if the Commission: i) eliminates the rules set forth in Sections 76.640, 76.1205, and 76.1602; or ii) modifies the rules set forth in Sections 76.640, 76.1205, or 76.1602 and expressly exempts the Company from this Condition. If the Commission modifies the rules set forth Sections 76.640, 76.1205, or 76.1602 and does not expressly exempt the Company from this Condition, this Condition shall be deemed modified in a manner consistent with the Commission's modifications of such rules.

e. This Condition defines the Company's obligations in lieu of the requirements concerning provisioning and supporting CableCARDs in the Memorandum Opinion and Order, *Charter Communications, Inc., Request for Waiver of Section 76.1204(a)(1) of the Commission's rules et al.*, 28 FCC Rcd 5212 (MB 2013). The remaining obligations of that waiver remain applicable to systems owned by Charter as of the Closing Date.

VIII. CYBERSECURITY SECURITY PLANS COMMITMENT

1. Introduction. Charter has outlined a "best of breed" approach to managing the merged entity's cybersecurity operations. While we are encouraged by the strategic goals of this approach, we find that the cybersecurity posture of the Company is especially important given the scale and complexity of the transaction. Integrating disparate operational systems with wide variation in their current cybersecurity approaches creates a greatly increased risk environment, particularly during the transition state when workforce changes and the establishment of trust relationships between networks have the potential to increase vulnerabilities. Given these factors, we adopt a condition to reduce cybersecurity vulnerabilities during the transition (or integration period) as described below.

2. Condition.

a. Within ninety days (90) of the Closing Date, absent any extension under the terms of this Appendix B, the Company shall document and submit a written confidential filing[11] describing its security plan for cyber risk management for the transition period, i.e., when it is integrating the Applicants' networks, to the Commission's Public Safety and Homeland Security Bureau.

[11] The Applicants may seek confidential treatment of this report pursuant to Section 0.459 of the Commission's rules, 47 CFR 0.459.

b. The Public Safety and Homeland Security Bureau shall use the Company's security plan and any related information, whether submitted in writing, orally, or electronically (collectively the "Company's information") solely to review the Company's cyber risk management efforts during the transition, and shall not use the Company's information in any Commission enforcement action or directly as record evidence in any rulemaking.[12] In addition, the Public Safety and Homeland Security Bureau shall keep confidential and maintain the security of the Company's information; protect the Company's information from public disclosure under FOIA to the extent of the Public Safety and Homeland Security Bureau's ability under Commission rules; limit access to the Company's information to relevant officials in the Public Safety and Homeland Security Bureau; not disclose or give access to the Company's information to any other Bureau or Office of the Commission, to any other federal, state, or local agencies, or to any other person or entity; and destroy the Company's information after the Public Safety and Homeland Security Bureau has used it for the limited purpose of reviewing the Company's efforts to manage cybersecurity risk during the transition, consistent with any applicable record retention rules. Nothing in this Condition shall be deemed to restrict the Commission's discretion to adopt generally applicable rules or policies with respect to cybersecurity otherwise consistent with law or to apply such rules or policies to the Company.

IX. COMPLIANCE PROGRAM AND REPORTING

1. Company Compliance Officer. Within thirty (30) calendar days after the Closing Date, the Company shall designate a senior corporate manager with the requisite corporate and organizational authority to serve as a Company Compliance Officer and to discharge the Company's duties with respect to the Conditions specified in this Appendix B. The person designated as the Company Compliance Officer shall be part of the Company's Chief Compliance Office. In addition to the general knowledge of the Communications Laws necessary to discharge his or her duties under this Order, the Compliance Officer shall have specific knowledge of the Company's operations referred to in these Conditions prior to assuming the duties required by this Appendix B.

2. Company Implementation and Compliance Plan. The Company agrees that it shall, within sixty (60) calendar days after the Closing Date, develop and implement an Implementation and Compliance Plan designed to ensure its implementation of and compliance with the Conditions specified in this Appendix B, establishing, *inter alia*, mechanisms to provide, on an ongoing basis, adequate notice and training to all Company personnel involved with the activities covered by the Conditions in this Appendix B. This Implementation and Compliance Plan shall be provided to the Independent Compliance Officer for review upon the Independent Compliance Officer's selection.

3. Independent Compliance Officer.

    a. Within ninety (90) days of the Closing Date, an Independent Compliance Officer shall be identified, whose selection is acceptable to the Company and approved by the Commission's Office of General Counsel. If the Company and the Commission's Office of General Counsel do not agree on the selection of an Independent Compliance Officer

[12] This statement is not intended to restrict the Commission's discretion in enforcing statutes and rules based upon information gathered through independent investigations, separate and distinct from information presented to the limited group of Public Safety and Homeland Security Bureau staff reviewing the report.

within ninety (90) days, then the Commission's Office of General Counsel shall select the Independent Compliance Officer.

b. The Company shall engage the Independent Compliance Officer at its own expense to perform the duties set forth herein, including an evaluation of the adequacy of the Company's compliance with the Conditions, and shall designate the Commission as a third-party beneficiary to the engagement. The terms of the engagement shall be subject to approval by the Commission's Office of General Counsel.

c. The Independent Compliance Officer and any persons retained by the Independent Compliance Officer to effectuate this Appendix B may not (i) have had any employment or familial relationships with the Company within the past two (2) years; (ii) have been employed by or affiliated with any competitor of the Company within the past two (2) years; (iii) have been an employee of the Commission within the past two (2) years; (iv) have submitted any comments or otherwise participated in this transaction proceeding or have been employed by or affiliated with any entity that has submitted any comments or otherwise participated in this transaction proceeding within the past two (2) years; or (v) have any conflict of interest related to the duties of the Independent Compliance Officer that could prevent him or her from performing his or her duties in a fair and unbiased manner. In addition, for a minimum of two (2) years after the end of the Independent Compliance Officer's engagement, the Independent Compliance Officer shall not be employed by, or have any business relationship with, the Company.

d. The Independent Compliance Officer shall have the power and authority to review and evaluate the Company's Implementation and Compliance Plan and any related materials, and recommend to the Company changes to address any perceived deficiencies in the Plan. Any such recommendations shall be included in the Independent Compliance Officer's Compliance Reports.

e. The Independent Compliance Officer shall prepare and submit, in accordance with the filing and service requirements set forth in Section IX.5. herein, a Compliance Report within sixty (60) days of receiving the Company's reports required under these Conditions. Each such Compliance Report shall include a detailed description of the Company's efforts during the relevant period to comply with the Conditions and will specifically meet the reporting requirements for the Conditions set forth herein. The Independent Compliance Officer shall provide a final copy of all Compliance Reports to the Company's Compliance Officer at least seven (7) days before the report is submitted to the Commission, so that the Company may prepare a request for confidential treatment if necessary.

f. The Company shall have thirty (30) days from submission of the Compliance Report to the Commission to comment on and/or object to the Compliance Report and must submit such comments and/or objections in accordance with the filing and service requirements set forth in Section IX.5. herein. The Company's comments and/or objections shall be accompanied by a statement explaining the basis for its response and shall comply with Section 1.16 of the Rules and be subscribed to as true under penalty of perjury in substantially the form set forth therein.[13]

g. If the Independent Compliance Officer in the reasonable exercise of his or her responsibilities discovers or receives evidence that suggests to the Independent Compliance Officer that the Company is materially violating or materially failing to

[13] 47 CFR § 1.16.

comply with a Condition, the Independent Compliance Officer shall promptly bring that discovery and/or evidence to the attention of the Company and the Commission's Office of General Counsel.

h. The Independent Compliance Officer shall not have the authority to direct the Company to make changes to the Implementation and Compliance Plan, the Company's efforts to comply with the Conditions specified in this Appendix B, or the Company's business practices or policies. The Commission (and its Bureaus and Offices in their delegated authority) retains all rights to determine if a violation has occurred and to take whatever action it deems appropriate. The Independent Compliance Officer also shall not have the authority to participate in the business activities or management of the Company. The Independent Compliance Officer's powers shall be limited to those in this compliance program and reporting section.

i. The Company shall reasonably assist the Independent Compliance Officer in the performance of the duties of the Independent Compliance Officer set forth in this Order. The Company shall take no action to interfere with or to impede the Independent Compliance Officer's accomplishment of his or her duties. The Independent Compliance Officer, and any person retained by the Independent Compliance Officer, may, in connection with the reasonable exercise of his or her responsibilities, subject to the Company's privilege rights, on reasonable notice to the Company during normal business hours, and in coordination with the Company Compliance Officer:

    i. Interview any Company personnel for any purpose reasonably related to the Independent Compliance Officer's duties; any such interview will be subject to the reasonable convenience of such personnel and the Company will make such personnel available;

    ii. Have such access to the facilities of the Company as is reasonably required by the Independent Compliance Officer's duties;

    iii. Have full and complete access to and inspect and copy any document, email, contract, and any other information in the possession, custody, or control of the Company reasonably related to the Independent Compliance Officer's duties; and

    iv. Require the Company to provide compilations of documents, data, or other information reasonably related to the Independent Compliance Officer's duties, and to submit reports to the Independent Compliance Officer containing such material, in such form as the Independent Compliance Officer may reasonably direct.

j. Any objections by the Company to actions by the Independent Compliance Officer must be conveyed in writing to the Commission's Office of General Counsel and to the Independent Compliance Officer within thirty (30) calendar days after the action giving rise to the objection or else such objection may be considered waived at the discretion of the Commission's Office of General Counsel. Any such objections will be resolved by the Commission's Office of General Counsel within thirty (30) days. The Company need not comply with any request or action of the Independent Compliance Officer that is subject to an objection lodged with the Commission until the Office of the General Counsel resolves the objection.

k. The Independent Compliance Officer may hire such persons on reasonable terms and costs as are reasonably necessary to fulfill the Independent Compliance Officer's duties, with prior notice and subject to the approval of the Commission's Office of General Counsel. The Independent Compliance Officer shall serve at reasonable costs and expense and any persons hired to assist the Independent Compliance Officer shall serve

at the cost and expense of the Company, on such terms and conditions as the Commission's Office of General Counsel reasonably approves, and shall be subject to the execution of customary confidentiality agreements acceptable to the Company. The compensation of the Independent Compliance Officer and any persons hired to assist the Independent Compliance Officer shall be on reasonable and customary terms commensurate with the individuals' experience and responsibilities and consistent with reasonable expense practices. The Independent Compliance Officer shall submit a monthly expense report in reasonable detail to the Company and the Commission's Office of General Counsel, with the first such report to be submitted within thirty (30) days after the selection of the Independent Compliance Officer, describing the total amounts expended.

l. The Commission's Office of General Counsel may at any time, on reasonable grounds, require the Company to replace the Independent Compliance Officer with a substitute Independent Compliance Officer selected by the same selection process as used in the initial selection.

m. The Company may not refuse to pay the Independent Compliance Officer without first receiving approval of the Commission's Office of General Counsel. If the Company determines that the Independent Compliance Officer has ceased to act or failed to act diligently or in a cost-effective manner, it may submit a request to the Commission's Office of General Counsel proposing corrective actions to be taken by the Independent Compliance Officer, including, without limitation, adjustments of amounts charged by the Independent Compliance Officer or the selection of a substitute Independent Compliance Officer.

n. The Independent Compliance Officer's engagement will continue as long as the Conditions in this Appendix B are in effect.

o. To the extent that this Condition permits or requires the Independent Compliance Officer to make requests of, or otherwise communicate with the Company, the Independent Compliance Officer shall first direct such communications—including, but not limited to, any requests for documents, access to the facilities access, or access to the Company's personnel—to the Company's Compliance Officer who shall be obligated to respond within a day.

p. Nothing in this Condition shall be construed to effectuate a waiver of any and all privileges that apply, including but not limited to the attorney-client privilege or the work product doctrine, and under no circumstances shall the Independent Compliance Officer have the right to request documents or information protected by any applicable privilege. Likewise, the Company shall not be required to provide any materials to the Independent Compliance Officer before the Company's counsel has been given a reasonable opportunity to review those materials and withhold those materials deemed to be shielded from disclosure under any applicable privileges. In the event that the Company has taken reasonable steps to prevent the disclosure of privileged materials and in an inadvertent production of privileged materials occur, the Company may request the privilege document may be returned to the Company and the Independent Compliance Officer permanently destroy and disregard that information. The Independent Compliance Officer shall comply with any such request provided it is made by the Company, in writing, within a reasonable time after the Company discovers the inadvertent production. The Company shall have the right to have counsel present for any interview the Independence Compliance Officer conducts with any Company personnel.

4. Company Obligation to Report Noncompliance. The Company shall report, in accordance with the filing and service requirements set forth in Section IX.5. herein, any material noncompliance

with the Conditions of this Order within fifteen (15) calendar days after discovery of such noncompliance. Such reports shall include a detailed explanation of: (i) each instance of material noncompliance; (ii) the steps that the Company has taken or will take to remedy such noncompliance; (iii) the schedule on which such remedial actions will be taken; and (iv) the steps that the Company has taken or will take to prevent the recurrence of any such noncompliance.

5. Confidentiality and Filing and Service Requirements. Any and all materials submitted to the Commission by any party pursuant to these Conditions, unless otherwise provided in this Appendix B, shall be filed in the appropriate docket with the Commission's Secretary's Office with an electronic copy submitted via email to the addresses listed below. The Commission recognizes that information submitted pursuant to these Conditions is likely to include material that is confidential which should not be routinely available for public inspection pursuant to 5 U.S.C. § 552(b)(4); 18 U.S.C. § 1905; and 47 CFR § 0.457(d). Parties may request confidential treatment under 47 CFR § 0.459. Parties submitting such confidential material shall provide an explanation of why the material should be considered confidential with both an unredacted (with confidential material marked) and a redacted version of any submission to the Commission's Secretary's Office with electronic copies submitted via email to the addresses listed below.

   (a) Wireline Competition Bureau:
   Adam Copeland (or his successor)
   With a copy submitted electronically to Adam.Copeland@fcc.gov.

   (b) Office of General Counsel:
   Owen M. Kendler (or his successor)
   With a copy submitted electronically to Owen.Kendler@fcc.gov.

   (c) Chief, Enforcement Bureau:
   Jeffrey Gee (or his successor)
   Investigations and Hearings Division
   Enforcement Bureau
   With a copy submitted electronically to Jeffrey.Gee@fcc.gov.

   (d) Independent Compliance Officer:
   To be selected.

X. ENFORCEMENT

In addition to the enforcement provisions identified elsewhere in this Appendix B, any material failure to comply with any Condition identified in this Appendix B may result in:

1. An appropriate forfeiture penalty under applicable law;
2. Extension of the duration of any Condition; and
3. Any other appropriate sanctions and remedies allowed under the Communications Laws, including, but not limited to, an award of damages for the benefit of consumers for any harm incurred, issuance of cease-and-desist orders, modification of the Conditions, and issuance of an order requiring appropriate remedial action.

The enforcement and compliance programs established in these Conditions are intended to supplement the Commission's usual enforcement and investigative powers, which remain fully applicable, and do not replace such powers.

XI. VIOLATIONS

Any violation of any of these Conditions shall be a violation of the Order.

XII. TERM

These Conditions shall remain in effect for seven (7) years beginning on the Closing Date, except as otherwise stated in this Appendix B or as provided below. If, during the three (3) months after the fourth anniversary of the Closing Date, the Company petitions to shorten the term of the Conditions contained in Section III (Settlement-Free Interconnection) or Section IV (Data Caps and Usage-Based Pricing Condition) to five (5) or more years, then the Wireline Competition Bureau shall, nine (9) months prior to the fifth anniversary of the Closing Date, seek public comment on whether the Company has demonstrated that those Conditions are no longer in the public interest and will rule on the Company's petition on or before the fifth anniversary of the Closing Date.

ATTACHMENT 1

Charter Communication's IP Interconnect Offer and Requirements

Charter Communications, Inc. (Charter) and New Charter will interconnect its IP network on a settlement-free basis with those applicants delivering data to New Charter customers pursuant to customer-initiated Internet sessions that meet the traffic measurement criteria set forth below for at least 3 consecutive months. Interconnection and any subsequent capacity augments under this offer will be undertaken at no charge to either party for traffic exchange from one another, and from one another's customers. Each party will maintain sufficient capacity to support New Charter customer-initiated Internet sessions consistent with this offer, including Paragraph (2) and the paragraphs entitled "Network Planning and Augmenting Capacity" and "Suspension" below.

To apply for such interconnection, an e-mail must be sent to interconnection@charter.com specifying anticipated traffic volumes per point of interconnection. This agreement applies to all interconnection relationships meeting the Interconnection Requirements (as defined below) involving New Charter's networks, including any newly acquired networks.

This offer applies to IP interconnection only. Traffic exchanged under this offer may include edge provider, transit, and CDN traffic.

Except where the applicant has maintained interconnection with Charter, Time Warner Cable, or Bright House Networks for the prior 6 months, New Charter may require a trial connection with any party seeking interconnection under this offer for not more than 6 months.

Interconnection Requirements for Interconnection Party

To qualify under this IP Interconnect Offer, the applicant:

1. Must interconnect at 8 or more of the New Charter points of presence in the cities listed below:[1]

Atlanta, GA	Los Angeles, CA	Seattle, WA
Ashburn, VA	Minneapolis, MN	Tampa, FL
Chicago, IL	New York, NY	
Dallas, TX	San Jose, CA	

2. Must advertise routes consistent with "shortest exit routing" unless both parties agree in writing to honor the following traffic management attributes (where provided by both parties): MED (Multi Exit Discriminator), AS Path length, and Standard BGP communities.
3. Must use the same ASN at each interconnection point, except that if either party is involved in an acquisition, multiple ASNs may be supported during the integration process so long as the same does not require the other party to carry traffic in an excessively inefficient manner, such as between continents.
4. Must maintain a minimum aggregate traffic exchange of 30 Gbps (95th percentile) with AS20115 in the dominant direction as measured on a monthly basis (Interconnection Requirements).
5. Must maintain a professional Network Operations Center staffed 24x7x365.
6. Must maintain consistent global routing announcements at all New Charter POPs.

[1] New Charter may add additional POPs to the list. Such additions do not increase the number of required POPs above 8.

7. Must not implement a "gateway of last resort" or default route directed at AS20115.
8. Must demonstrate and enforce strict filtering policies to prevent improper announcements.
9. Must advertise routes, including customer routes, but exclude all transit or third party routes.
10. Must provide IPv4 unicast routes up to /24 netmask or IPv6 Unicast routes up to /48 netmask.
11. Must use BGP version 4 with BGP authentication keys.
12. Must not abuse the interconnection relationship by doing any of the following:
    a. Resetting next hop
    b. Reselling, bartering, trading or giving either routes or next hop to third parties (non-customers)
    c. Leaking routes to third parties (non-customers)
    d. Sending inconsistent prefixes inside of a single interconnection region (in number, origin, or other attributes) unless agreed to in writing
    e. Sending inconsistent prefixes are allowed for a party that has island/regional networks without the capacity to transport between those islands/regions, as long as those inconsistent prefixes are not utilized to manage traffic between those islands/regions or otherwise in a manner that disrupts the network management practices and techniques employed by New Charter. The use of inconsistent prefixes requires that a party must maintain a minimum traffic exchange of 10Gbps (95th percentile) at each New Charter POP with AS20115 in the dominant direction as measured on a monthly basis.
13. Must register routes or send advance notice of dramatic changes in announcements.
14. Must agree to actively cooperate in resolving items in the following:
    a. Security violations
    b. Denial of service attacks
    c. Network abuse
    d. Downed interconnection sessions, interfaces, or circuits
    e. Disrupted, damaged, or flapping interconnection sessions
    f. Similar/related infrastructure and security issues
15. Must utilize RADB or mirrored IRR resources and shall be configured with max prefix limits, allowing 25% headroom, based upon registered/announced routes.
16. Must agree not to offer or sell any IP transit service providing only AS20115. New Charter agrees not to offer or sell any services providing applicant-only routes.

Network Planning and Augmenting Capacity

The interconnection party agrees to meet with or report to New Charter on a periodic basis to participate in planning network status reviews and forecasting network traffic.

Either New Charter or the interconnection party can require that the capacity at any interconnection point: (i) be upgraded if aggregate port utilization in either direction at the interconnection point exceeds 70% of the available capacity at the interconnection point for 3 or more consecutive hours per day for 3 or more consecutive days during the preceding 30 day period, or (ii) to be reduced if port utilization falls below 30% of the available capacity at that interconnection point for 6 consecutive months (each measured using the 95th percentile method). Each party shall be required to accomplish any required augmentation

or reduction within 90 days of the other party's request, provided that in any calendar month neither party shall be obligated to add an amount of ports at any interconnection point that is larger than 10% of the amount of ports in place between both parties at that location in the prior calendar month (rounded up to the nearest whole number of 10G ports). Neither party shall charge the other for any required augments.

If after the effective date either party or one of its affiliates closes an acquisition and the entity acquired was exchanging IP traffic with the other party's internet network prior to the closing of the transaction: i) each party shall cooperate to migrate the ports of the acquired entity to the AS of the acquiring entity within a reasonable period of time as necessary to accommodate an efficient transition pursuant to the acquiring entity's network architecture and management plans; and ii) the agreement entered into pursuant to this offer shall govern the combined ports of the acquired entity and the acquiring entity after completion of such transaction.

Suspension

New Charter reserves the right to suspend any interconnect agreement in the event that an Abnormal Growth Event occurs. An Abnormal Growth Event occurs when: 1) there is a net increase in the 95th percentile data transfer rate into or out of New Charter's network of 10% or more in any calendar month compared to any prior calendar month; or at least 8% per month over a rolling 6 month period; or 5.9% over a rolling 6 month period for a company whose traffic constitutes 30% or more of the total traffic in the dominant direction on New Charter's Network and 2) New Charter reasonably believes that such traffic will materially impair the performance of the network or materially compromise the security of network infrastructure or users on the network. In the event that the Interconnection Party begins conveying data to or from New Charter that was previously conveyed to or from New Charter by a third party, the parties shall account for this additional data transfer as the Interconnection Party's own for the purposes of measuring growth rates during subsequent measuring periods. The parties shall not count in the growth rate any portion of that incremental traffic that was previously being delivered to New Charter by third parties.

Upon the occurrence of an Abnormal Growth Event, New Charter will provide as soon as reasonably possible information to the Interconnection Party sufficient to explain the basis for its reasonable belief and the parties shall meet as soon as reasonably possible in order for the peering party to provide New Charter with detailed information regarding the circumstances giving rise to the Abnormal Growth Event and to present a plan to eliminate, mitigate, or otherwise address the Abnormal Growth Event. A suspended agreement will resume upon a reasonable showing that the Abnormal Growth Event has been resolved.

Consistent with the terms of this offer, either party may also take reasonable measures in order to protect the security of its Internet network, including measures consistent with its acceptable use policy, provided that such acceptable use policy does not conflict with the terms of this offer.

In order to assure efficient exchange of Internet traffic over the Interconnect Exchange Points, each party shall deliver Internet traffic (i) received by it from the other party, or (ii) destined to the other party, in each instance to the intended destination with no lower priority or service quality than any other similarly situated Internet traffic, including that of the party's affiliates. Nothing herein shall restrict either party from imposing usage restrictions on its own customers and/or assisting its customers in imposing customer-requested usage restrictions; provided, however, that other than to protect the security of its network or in order to comply with the Digital Millennium Copyright Act, neither party shall block or target specific content or applications on the other party's network. Either party may route Internet traffic to the other party's Internet network through third parties, provided that it has the contractual right to do so with such third parties or is required to do so in accordance with applicable law. Nothing in this offer shall require either party to continue the exchange of traffic with any third party, nor restrict either party

from negotiating or enforcing the terms and conditions relating to the exchange of traffic with a third party.

Packet Error and Network Management

New Charter reserves the right to implement reasonable traffic management techniques as may be necessary to eliminate or minimize bandwidth waste associated with misdirected, mis-transcoded, or undeliverable packets. Furthermore, nothing in this offer shall be deemed to abrogate or otherwise limit New Charter's rights under applicable law to implement reasonable network management practices.

Interconnection Agreement Termination

New Charter reserves the right to terminate its interconnection agreement with any party who materially breaches its agreement after the party (i) has been given written notice of the breach and fails to cure it within 10 days of the written notice and (ii) has obtained and transitioned traffic to sufficient capacity from a third party, except in no event is New Charter required to continue under this offer more than 20 days after New Charter would otherwise be entitled to terminate it for material breach. Incremental traffic growth of less than 5 Gbps per month does not constitute a material breach or grounds for termination or suspension. New Charter reserves the right to terminate any interconnection agreement immediately if necessary to comply with any applicable law, regulation or government order.

Term

New Charter reserves the right to change this interconnection offer prior to June 30, 2023, to accommodate changes: (i) that are necessary to comply with any applicable law, or (ii) resulting from a change in law that might render New Charter's compliance with the terms of any interconnection agreement impracticable or impossible. If the Federal Communication Commission ("FCC") or the FCC's Wireline Competition Bureau removes or eliminates the Settlement-Free Interconnection Condition ("the Condition") from the FCC's Order approving the merger of Charter, Time Warner Cable, Inc. and Bright House Networks, LLC, then New Charter may terminate this policy upon the Condition's removal or elimination.

Enforceability

Either party to the interconnection relationship may enforce rights or obligations established by this offer or related interconnection agreement in a court or agency of competent jurisdiction.

APPENDIX C

Economic Appendix

TABLE OF CONTENTS

Heading Paragraph #

I. INTRODUCTION 1
II. BROADBAND SERVICES 4
A. Market Power in Supplying Eyeballs 4
1. Number of Competitors Faced by the Applicants and New Charter 6
2. Broadband Subscriber Shares 8
3. Predicted Prices for Charter and Time Warner Cable by Competitive Footprint 11
B. Interconnection 20
1. Interconnection Statistics and Trends 25
a. Capacities and Utilization by Mode of Interconnection 25
b. Traffic Ratio Trends 29
2. Predictive Analysis of Interconnection Rates 32
3. Potential Harm from Reduction in Streaming Quality 45
a. Congestion Data Analysis 46
b. VOD Revenue Analysis 58
C. OVD Entry and Cable Broadband Churn 72
1. Applicant Churn Analysis by Competitive Footprint 74
a. Churn Reason Categories 77
b. Broadband Areas with a FTTP or FTTN Competitor 83
c. Regression Analysis 85
2. Long-Run Churn versus Short-Run Churn 93
III. MVPD SERVICES 97
A. MVPD Video Subscriber Shares 102
B. MVPD Programming Payments 106
C. Programming Foreclosure 109
1. RSNs 109
a. Introduction 109
b. Permanent Foreclosure and Nash Bargaining for SportsNet/Deportes and SportsNet LA 117
(i) Critical Departure Rates 118
(ii) Expected Departure Rates 123
(iii) Empirical Analysis 129
(a) Assumptions and Data 131
(b) Results 137
(iv) Empirical Analysis of SportsNet LA Actual Departure Rates 148
(a) Difference-in-Differences Analysis 148
(b) Revisiting Foreclosure Analysis 156
(v) Programming Price Effects 167
2. Discovery Communications 174
a. Introduction 174
(i) Background 177
(ii) Modeling Approach and Estimation 179
b. Stakeholders Negotiate on Behalf of Discovery 184
(i) Variable Definitions 185
(ii) Transaction-Specific Change in Affiliate Fees 186

(a) Pre-Transaction 187
(b) Post-Transaction 197
(iii) Expected Departure 200
(iv) Critical Departure 203
(v) Empirical Analysis 205
(a) Nationwide vs. Market-Level Estimation 207
(b) Calibration and Model Sensitivity 210
(c) Results 214
c. Discovery Negotiates Leveraging the Stakeholders' Equity Interests 224
(i) Model 224
(ii) Departure Rates 234
(a) Expected Departure 234
(b) Critical Departure 237
(iii) Results 240
(a) Incentive to Foreclose 241
(b) Price Effects 244
(iv) Critical Ownership Necessary for Foreclosure 247

I. INTRODUCTION

1. This Appendix presents the economic analysis undertaken by the Commission to evaluate the potential harms from the proposed transactions between Charter Communications, Inc. (Charter), Time Warner Cable, Inc. (Time Warner Cable), and Bright House Networks (Bright House) (collectively the Applicants and post-transaction New Charter). This Appendix considers certain economic analyses submitted into the record[1] as well as additional analyses to support our conclusions on the likelihood of competitive harms that may result from this transaction.

2. The Appendix is divided into two broad service areas—Broadband Services and Multichannel Video Programming Distributor (MVPD) Services. In the Broadband Services section we analyze the number of competitors faced by the Applicants and broadband subscriber shares. Next, we employ a regression model to examine whether Charter's and Time Warner Cable's prices vary by the competition they face. Further, we analyze whether the transaction would provide New Charter an increased incentive or ability to harm online video distributors (OVDs) and other edge providers by raising quality-adjusted interconnection prices to OVDs and other edge providers, through some combination of price increases and/or by reductions in the quality of interconnection access. Finally in

[1] The Applicants submitted a number of economic analyses. *See* Application, Declaration of Fiona M. Scott Morton, transmitted by letter from John L. Flynn, Counsel for Charter, and Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed June 25, 2015) (Scott Morton Decl.); Charter, Time Warner Cable and Advance/Newhouse, White Paper, Analysis of Video Programming Foreclosure Issues Involving Time Warner Cable SportsNet and SportsNet LA at para. 1, Steven C. Salop, Robert Stillman, Jerrod R Welch and Serge Moresi (RSN Foreclosure Analysis White Paper), transmitted by letter from Samuel Feder, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed December 3, 2015); Opposition, "Statement of Dr. Fiona Scott Morton re the Merger of Charter, TWC, and BHN", transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Nov. 2, 2015) (Scott Morton Reply Decl.). Opposition, "Analysis of Video Programming Foreclosure Issues Involving Dr. John Malone and Advance/Newhouse Partnership," Reply Declaration of Steven C. Salop, Robert Stillman, Jarrod R. Welch and Serge Moresi, transmitted by letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 (filed Nov. 2, 2015) (Salop Reply Decl.). Letter from Pantelis Michalopoulos, Counsel for DISH Network Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attachment, Analysis of Internet Churn: Time Warner Cable, Inc., Bright House Networks and Charter Communications (Zarakas Decl.) (filed Jan. 2016).

this section, we analyze the Applicants' claims that they experience churn as a result of the competitive environment using both short-run and long-run churn data.

3. In evaluating MVPD services, we first analyze video subscriber shares and then we analyze the anonymized programming payment data submitted by the Applicants. In this section, we also analyze whether New Charter would find it profitable to withhold its regional sports networks (RSNs) from other MVPDs. We also consider whether John Malone's (Malone) and Advance/Newhouse's Partnership (Advance/Newhouse) ownership shares in both Discovery Communications Inc. (Discovery) and New Charter would make foreclosure of Discovery programming a profitable strategy.

II. BROADBAND SERVICES

A. Market Power in Supplying Eyeballs

4. We are concerned with the effects of potential market power by New Charter on OVDs because OVDs offer consumers choices that may either complement the consumer's MVPD services or compete directly with at least some of the services provided by MVPDs. Some commenters contend that New Charter would possess the incentive to unilaterally impose anticompetitive policies that would harm OVDs.[2] The Commission has previously found that broadband Internet service providers (BIAS providers) have incentives to disadvantage the operations of third party Internet-based services that compete with their own services.[3] This harm may manifest in a number of ways. BIAS providers which offer MVPD services may seek to protect this business segment by disadvantaging OVDs through the use of data caps, usage-based pricing, or discriminatory bundling practices.[4] Also, BIAS providers with sufficiently large subscriber bases may be able to extract high interconnection fees from edge providers to access their local networks.

5. Due to these concerns, in this section we consider various metrics to analyze the likelihood that New Charter would have an increased incentive or ability to harm OVDs. First, we evaluate the number of BIAS providers by speed tier that the Applicants face individually and New Charter would face post-transaction. Our analysis of homes passed finds that New Charter would be the sole BIAS provider for approximately two thirds of its footprint. Next, we consider the increase to the Applicants' broadband subscriber share by speed tier resulting from the transaction. Our subscriber share analysis finds that at 25 megabytes per second (Mbps) and 50 Mbps that each of the Applicants' shares within their footprints are greater than **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, and for New Charter's footprint more than **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. Finally, we undertake a regression analysis to estimate the percent differences in Charter's and Time Warner Cable's predicted prices when they face different competitive constraints. Our regression analysis finds that both Charter's and Time Warner Cable's predicted prices are affected by the competition they face as well as the technology. Collectively, these analyses support the proposition that New Charter likely will have an incentive to harm OVDs.

1. Number of Competitors Faced by the Applicants and New Charter

6. We examine the number of BIAS providers at various download speeds nationwide and throughout the Applicants' service footprints, comparing the state of the marketplace before and after the

[2] *See, e.g.*, Petition to Deny of Writers Guild of America West, Inc., MB Docket No. 15-149, at 18 (filed Oct. 13, 2015) (WGAW Petition); Public Knowledge Reply at 1; Petition to Deny of DISH Network, MB Docket No. 15-149, at 26 (filed Oct. 13, 2015) (DISH Petition).

[3] *Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, 5662, para. 140 (2015); 47 CFR § 8.2(a) (defining broadband Internet access service).

[4] *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, MB Docket No. 14-16*, Sixteenth Annual Report, 30 FCC Rcd 3253, 3352-53, para. 215 (2015) (*Sixteenth Video Competition Report*).

proposed transaction. Table 1 presents the number of BIAS providers nationally, by percentage of housing units passed, at a variety of speeds. The shares of homes passed are calculated using census block-level deployment data from the Commission's December 2014 FCC Form 477.[5] For speeds of at least 25 Mbps down,[6] 55 percent of housing units have at most only one BIAS provider capable of delivering this speed. For speeds of at least 50 Mbps down, the highest speed tier shown in the table, that number rises to 59 percent.

7. Table 1 also presents the number of BIAS providers for existing Charter, Time Warner Cable, and Bright House service footprints,[7] by percentage of housing units with either 0, 1, 2 or 3 or more BIAS providers at a variety of speeds and for the proposed footprint of post-transaction New Charter.[8] For speeds of at least 25 Mbps down, Charter is the sole BIAS provider in 73 percent of its footprint; Time Warner Cable is the sole BIAS provider in 64 percent of its footprint; and Bright House is the sole BIAS provider in 34 percent of its footprint, and New Charter would be the sole BIAS provider in 66 percent of its footprint.

Table 1
Number of BIAS Providers at Different Speeds

		Nationwide	Charter Footprint	Time Warner Cable Footprint	Bright House Footprint	New Charter Footprint
Any Speed	3 +	14%	19%	19%	16%	18%
	2	69%	75%	76%	80%	76%
	1	12%	6%	5%	4%	5%
	0	5%	0%	0%	0%	0%
At Least 10 Down	3 +	9%	11%	11%	13%	11%
	2	59%	62%	65%	71%	65%
	1	24%	27%	23%	16%	24%
	0	8%	0%	0%	0%	0%
At Least 25 Down	3 +	3%	3%	3%	10%	3%
	2	31%	24%	32%	56%	30%
	1	55%	73%	64%	34%	66%
	0	12%	0%	0%	0%	0%
At Least 50 Down	3 +	2%	2%	3%	5%	2%
	2	23%	17%	22%	32%	21%
	1	59%	77%	67%	63%	70%
	0	16%	5%	8%	0%	7%

Source: December 2014 Form 477 Deployment Data

[5] December 2014 Form 477 deployment data is available for download at https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477 (last visited Mar. 15, 2016) (December 2014 Form 477 Deployment Data). A census block is the smallest geographic unit for which the Census Bureau tabulates decennial census data. There are 11,166,336 blocks designated in the 2010 Census, and they range in population from zero to several hundred. *See* U.S. Census Bureau, "2010 Census Summary File 1 – 2010 Census of Population and Housing, Technical Documentation" at 21 (March 2010), http://www.census.gov/prod/cen2010/doc/sf1.pdf#page=504.

[6] *See 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment*, 30 FCC Rcd 1375, 1381, para. 13 (2015) (*2015 Broadband Progress Report*).

[7] A BIAS provider's footprint for purposes of this analysis is defined as the set of all Census Blocks in which the provider passes at least one residential subscriber.

[8] For purposes of this analysis we define BIAS providers as offering the following technologies: digital subscriber line (DSL), DOCSIS cable, fiber to the node (FTTN), and fiber-to-the home (FTTH). It excludes BIAS providers who are not facilities-based or who focus on non-residential customers.

2. Broadband Subscriber Shares

8. Next we consider how the transaction would affect broadband subscriber shares. In this section, we look at national and within footprint subscriber shares for the Applicants individually and for New Charter. Table 2 below provides national broadband subscriber shares by speed tier for the Applicants individually pre-transaction and New Charter post-transaction.[9] These figures are of particular interest, because, in general, edge providers' benefit from the ability to reach customers on a nationwide basis.[10] The data are provided by speed tier and total. Table 3 provides similar data for within-footprint subscriber shares.

9. For purposes of this subscriber share analysis, a BIAS provider's footprint is defined as the set of all Census tracts[11] in which the BIAS provider has at least one residential subscriber. Thus, the total number of broadband subscribers within a particular BIAS provider's footprint includes all broadband subscribers in Census tracts in which the BIAS provider serves at least one subscriber. Given that a BIAS provider's network need not entirely cover all Census tracts within its footprint, its percentage of subscribers within its footprint is likely to understate the actual share of households within the territory that it serves. As of December 2014, Charter had approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** residential broadband subscribers, or a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent subscriber share nationwide and an in-footprint share of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. Time Warner Cable had approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** residential broadband subscribers as of December 2014, or a nearly **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent share nationwide and an in-footprint share of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. Bright House had approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** residential broadband subscribers as of December 2014, or approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent share

[9] The speed tiers used in Table 2 and Table 3 are: 10 Mbps down; 25 Mbps down; and 50 Mbps; and All. *See Media Bureau Makes Available Broadband Subscriber Data Relevant To Review Of Proposed Charter-Time Warner Cable-Advance/Newhouse Transactions*, Public Notice, 30 FCC Rcd 12748, 12752, Exh. 1-2 (MB 2015) (*477 Data PN*).

[10] Because broadband subscribers purchase access to the entire Internet, it is reasonable for an edge provider to assume, as part of its business model, that it would have access to all broadband subscribers nationwide—or, in other words, that any broadband subscriber in the country would have the option to use the edge provider's services. Furthermore, given that many data-intensive and performance-sensitive edge provider products are characterized by positive network externalities (e.g., multiplayer games and live video chat applications) or high fixed costs (e.g., licensed streaming video content), unfettered access may even be necessary for an edge provider's viability. Thus, a BIAS provider may have the ability to foreclose an edge provider. If the edge provider's service is a substitute for another service provided by the BIAS provider (as may be the case with online video distributors, whose services may be substitutes for MVPD services), then the BIAS provider may also have the incentive to foreclose the edge provider. As the BIAS provider's subscribership increases (i.e., the BIAS provider "commands more eyeballs"), both the ability and incentive to foreclose a competing edge provider may increase. *See also* Competitive Impact Statement, *United States v. AT&T*, No. 1:00-cv-01176 (D.D.C. 2000).

[11] The Commission collects BIAS providers' residential subscribership data through the FCC Form 477, which contains information on the number of broadband subscribers in each census tract by technology, and by specific download/upload speeds. *See generally* 47 C.F.R. §§ 1.7000-1.7002 (Form 477 Data). Census Tracts are small, relatively permanent statistical subdivisions of a county or equivalent entity. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. A census tract usually covers a contiguous area; however, the spatial size of census tracts varies widely depending on the density of settlement. *See* United States Census Bureau, *Geographic Terms and Concepts – Census Tract*, https://www.census.gov/geo/reference/gtc/gtc_ct.html (last visited Mar. 12, 2016).

nationwide and an in-footprint share of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.

10. We find that subscriber shares are more concentrated within both the Applicants' and New Charter's footprint for each of the speed tiers For example for the 25 Mbps tier, pre-transaction, Charter, Time Warner Cable, and Bright House respectively had subscriber shares of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, but **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent within their respective footprints. For New Charter, its nationwide subscriber share for the 25 Mbps speed tier would be **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent and within its footprint **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.

Table 2
National Counts and Shares of Consumer Connections by Speed Tier
December 2014

[BEGIN HIGHLY CONF. INFO.]

Speed Tier (max download speed)	Pre-Transaction			Post-Transaction
	Charter	Time Warner Cable	Bright House	New Charter

[END HIGHLY CONF. INFO.]
Source: *477 Data PN*

Table 3
Within-Footprint Shares of Consumer Connections by Speed Tier
December 2014

[BEGIN HIGHLY CONF. INFO.]

Speed Tier (max download speed)	Pre-Transaction			Post-Transaction
	Charter	Time Warner Cable	Bright House	New Charter

[END HIGHLY CONF. INFO.]
Source: *477 Data PN*

3. Predicted Prices for Charter and Time Warner Cable by Competitive Footprint

11. In this section, we employ a regression model to examine whether Charter's and Time Warner Cable's prices vary based on the competition that they face.[12] Our analysis predicts standalone broadband prices for both Charter and Time Warner Cable where they face competition from Verizon Corporation, Inc. (Verizon) FiOS and DSL and AT&T Services, Inc. (AT&T) U-Verse and DSL. Our results show that the predicted prices for both Charter and Time Warner Cable are sensitive to the specific competitor as well as to the technology deployed.[13]

12. In each zip code in Charter's and Time Warner Cable's footprints, we calculate, using December 2014 Form 477 Deployment Data, the percentage of homes passed that fall into each of five mutually exclusive broadband competition categories—cable only, digital DSL, FTTN, and FTTH, and cable overbuilders.[14] First we match the December 2014 Form 477 Deployment Data to zip codes via a crosswalk.[15] The zip codes are then matched to monthly billing data for residential subscribers supplied by Charter and Time Warner Cable.[16] These data provide the number of subscribers, monthly recurring revenues, and plan characteristics by month from June 2012 to August 2015 for every plan in a zip code for which the Applicants have at least one subscriber. For our price variable, we use the monthly recurring revenues (MRR) for all subscribers that have been on the particular plan in the zip code. The

[12] We did not perform the analysis for Bright House because the company does not keep non-recurring revenues broken down by different services. *See* Advance/Newhouse Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Steven J. Horvitz, Counsel to Advance/Newhouse, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 1 (filed Oct. 21, 2015) (Advance/Newhouse Oct. 21, 2015, Updated Response to Information Request).

[13] Charter has pursued a nationwide uniform pricing model to provide a **[BEGIN HIGHLY CONF. INFO]**

[END HIGHLY CONF. INFO]. (Charter's Residential Pricing and Packaging, filed Dec. 11, 2015, transmitted to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, by John L. Flyinn.

[14] For the purposes of this analysis, technologies are defined in the following manner: DSL as Asymmetric DSL at strictly slower than 10 Mbps downstream and strictly slower than 768 kilobits per second (kbps) upstream; FTTN is Asymmetric DSL with at least 10 Mbps downstream and at least 768 kbps upstream; and FTTH is broadband provided by any fiber technology. Cable only is for existing incumbent cable infrastructure. A cable overbuilder for purposes of this analysis is defined as cable broadband provided by one of the following four firms: Knology; Wide Open West (WOW!); RCN Corporation/ABRY Partners; or Grande Communications Networks, LLC.

[15] December 2014 Form 477 Deployment Data; Census Bureau, Zip Code Tabulation Files http://www.census.gov/geo/maps-data/data/relationship html (last visited Mar. 12, 2016) (Census Bureau, Zip Code Tabulation File).

[16] *See* Charter Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from John L. Flynn, Counsel to Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 108(a)-3; Exhibit 108(1)-4 (filed Oct. 23, 2015) (Charter Oct. 23, 2015, Updated Response to Information Request); Time Warner Cable Updated Response to Information and Data Request, transmitted by letter from Matthew A. Brill, Counsel to Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attachment B (filed Oct. 16, 2015) (Time Warner Cable Oct. 16, 2015, Updated Response to Information Request).

MRR excludes one-time charges (such as from video-on-demand (VOD) or installation).[17] We restrict our analysis to standalone broadband service to avoid complications that may arise from the pricing of bundled offerings.

13. We focus our analysis on Applicants' pricing response to Verizon FiOS (FTTH) and AT&T U-Verse (FTTN).[18] Both Charter and Time Warner Cable face AT&T U-Verse and Verizon FiOS in parts of their current footprints and the speeds offered by these competitors are more comparable to New Charter's proposed broadband service than to DSL. AT&T U-verse offers speeds of up to 45 megabits per second (Mbps),[19] and its IPDSL provides broadband up to 18 Mbps.[20] Current offerings for Verizon FiOS range from 25 Mbps to 500 Mbps down with most customers subscribing to the FiOS Quantum plans that offer download speeds of 50 Mbps or more,[21] while Verizon's High Speed Internet (DSL) service offers speeds up to 10-15 Mbps down and 1 Mbps up.[22] Further, we estimate that the New Charter homes passed are largely passed by Verizon and AT&T, and not cable overbuilders.[23] Finally, there is some documentary evidence that both Charter and Time Warner Cable pay attention to Verizon's FiOS and AT&T's U-Verse offerings.[24]

14. To estimate the effect of the presence of Verizon FiOS and AT&T U-verse on Charter's and Time Warner Cable's broadband plan pricing, we regress the MRR of a plan in a zip code on Verizon's DSL and FiOS deployment and on AT&T's DSL and U-verse deployment, as well as on demographic variables that may affect broadband demand.[25] We also add a piecewise linear spline for the percent of Charter and Time Warner Cable homes facing Verizon FiOS and AT&T U-verse competition in the zip code with knot points at 50 percent.[26] This was done to allow for differential responses by Charter and Time Warner Cable in their plan pricing when Verizon FiOS and AT&T U-verse penetration falls above or below the 50 percent threshold. We posit that Charter and Time Warner Cable would

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[17] *See* Charter Oct. 23, 2015, Updated Response to Information Request at 17-18.

[18] AT&T currently uses FTTN architecture in most of the U-verse video footprint. Under this approach, AT&T deploys fiber to neighborhood nodes. Individual customer locations are connected to the network via existing copper plant using very-high-bit-rate DSL technology. *See Applications of AT&T and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 30 FCC Rcd 9131, 9135, para. 11 n.9 (2015) (*AT&T-DIRECTV Order*).

[19] *AT&T-DIRECTV Order* 30 FCC Rcd 9131, 9135, para. 11 n.9.

[20] *Id.* at 9135, para. 11 n.10.

[21] *See 2015 Broadband Progress Report*, 30 FCC Rcd 1375, 1383-84, para. 16.

[22] *See* Verizon, *DSL Service: The 24/7 Connection*, http://www.verizon.com/info/dsl-services/ (last visited Mar 15, 2016).

[23] The percent of total New Charter homes passed by Verizon would be approximately 22 percent, for AT&T approximately 53 percent, and for the four cable overbuilders, jointly, approximately five percent. Derived from December 2014 Form 477 Deployment Data.

[24] CHR2-DOJ-00000022862 at 4, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**; TWC-DOJ-01951541 at 18-20, **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.

[25] Summary File 1. *2010 Census Summary File 1 United States*, prepared by the U.S. Census Bureau (2011). The demographic controls are: median household income, gender, educational attainment and median age. *See* Summary File 1. *2010 Census Summary File 1 United States*, prepared by the U.S. Census Bureau (2011) and 2012 American Community Survey: 5-Year Data, from Minnesota Population Center. National Historical Geographic Information System: Version 2.0. Minneapolis, MN: University of Minnesota 2011 (https://www nhgis.org).

[26] These spline variables are also used in a different analysis in Section II.C.1.c below and are explained in more detail there.

discount plans more steeply when penetration for these services crossed this threshold, and this is found to generally hold in the data. To this specification, we add individual plan and month-by-year fixed effects. The plan-level fixed effects control for the average price of a plan and for potential differences in the choice sets faced by consumers across zip codes. The time fixed effects control for industry trends in plan prices. Finally, the model is estimated separately for various broadband speeds.

15. The regression calculates the predicted prices for Charter and Time Warner Cable when facing Verizon FiOS and DSL and AT&T U-verse and DSL. We then calculate differences between these predicted prices and report these differences in Table 4 and Table 5 below.[27]

Table 4
Charter Predicted Broadband-only Pricing by Competitive Footprint
[BEGIN HIGHLY CONF. INFO.]

Download Speed	FiOS vs. Verizon DSL	FiOS vs. U-Verse	FiOS vs. AT&T DSL	U-verse vs. AT&T DSL	U-verse vs. Verizon DSL

[END HIGHLY CONF. INFO.]

Table 5
Time Warner Cable Predicted Broadband-only Pricing by Competitive Footprint
[BEGIN HIGHLY CONF. INFO.]

Download Speed	FiOS vs. Verizon DSL	FiOS vs. U-verse	FiOS vs. AT&T DSL	U-verse vs. AT&T DSL	U-verse vs. Verizon DSL

[END HIGHLY CONF. INFO.]

16. Charter's predicted broadband only pricing is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** at all speeds when it faces competition from Verizon FiOS than when it faces Verizon DSL. Further, Charter's predicted prices are **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** when facing Verizon FiOS rather than AT&T U-verse, but **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** when facing Verizon FiOS rather than AT&T DSL. When Charter faces U-verse, its predicted prices are **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** than in the instances where it faces competition from either Verizon or AT&T DSL. Time Warner Cable's predicted broadband only price is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** at all speeds when it faces competition from Verizon FiOS than when it faces Verizon DSL. Further, Time Warner Cable's predicted prices are also **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** but

[27] The download speeds in Tables 4 and 5 differ because they reflect the speeds associated with Charter's and Time Warner Cable's standalone broadband plans.

to a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** degree when facing Verizon FiOS rather than AT&T U-verse, and its prices are much **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** when facing Verizon FiOS rather than AT&T DSL. When Time Warner Cable faces U-verse its predicted prices are **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** than in the instances where it faces competition from either Verizon or AT&T DSL.

17. While the analysis does generally shed some light on how both Charter's and Time Warner Cable's standalone broadband prices are affected by competitive conditions, there are some caveats that should be noted. First, Charter does not seem to respond to the presence of Verizon (either FiOS or DSL) very **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** (and, in the case of FiOS, less **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** than Time Warner Cable does). The results shown in the third column of Table 4 are particularly striking: Charter's competitive response against Verizon FiOS is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** than its response against AT&T DSL at **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** speeds, and, while Charter's response against Verizon FiOS **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** at higher speeds, it is basically **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** as Charter's competitive response against AT&T DSL at the higher speeds. These findings might be due to the fact that Charter's overlap with Verizon FiOS is small, constituting less than five percent of Charter's footprint.[28] More generally, the results related to Charter's competitive response to Verizon should be treated with caution.

18. For a more robust result, the deployment data would ideally be a panel (i.e., multiple-time-period) data set that shows changes to deployment over time and can be used to make precise inferences about providers' mutual competitive responses, but, unfortunately, such a detailed data set is unavailable.[29] The deployment information comes from a cross-sectional (i.e., single-time-period) data set that represents providers' broadband networks as of December 2014. Thus, any inferences about competitive responses are limited in their reliability.

19. Finally, there could be other modes of competition, even of price competition, that are not captured here, given our focus on the narrowly defined (though easily quantified) measure of MRR. For example, providers might offer gift cards, rebates, or other one-time promotions to new subscribers, and it is reasonable to expect that they would be more aggressive with these strategies in more competitive areas. None of these strategies, however, would be reflected in decreases in MRR.

B. Interconnection

20. In this section, we analyze whether the transaction would provide New Charter an increased incentive or ability to harm OVDs and other edge providers by raising quality-adjusted interconnection prices to OVDs and other edge providers, through some combination of price increases and/or by reductions in the quality of interconnection access (for example, by degrading streaming content). We first find that New Charter would have an increased ability to raise quality-adjusted interconnection prices. A corollary of our finding is that New Charter would also have an increased ability to engage in anticompetitive action aimed at OVDs and other edge providers. We also find

[28] Share of housing units in Charter blocks that are also in FiOS blocks are approximately 4.5 percent. *See* December 2014 Form 477 Deployment Data.

[29] The December 2014 Form 477 Deployment Data was the first time the Commission released Form 477 deployment data. Previously, the National Telecommunications and Information Administration collected data on broadband deployment through its State Broadband Initiative. *FCC Releases Data on Broadband Deployment as of December 31, 2014 Collected Through FCC Form 477*, Public Notice, 30 FCC Rcd 12504, 12504 (WCB 2015).

evidence of a mechanism that would provide New Charter with an increased incentive to harm OVDs due to the increase in its potential VOD and Pay-per-View (PPV) audience.

21. In this section, we analyze interconnection statistics and trends for the Applicants and for selected third parties. Specifically, we compare capacity and utilization for Charter, Time Warner Cable, Comcast Corp. (Comcast), and Verizon and we find that, in the absence of conditions related to interconnection, New Charter's paid peering traffic, as a share of total traffic, in the medium term, would increase significantly and likely will exceed **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. This increase likely will contribute to an overall increase in interconnection revenues for New Charter relative to the current combined interconnection revenues of the Applicants.

22. Next, we conduct a predictive analysis of the potential effects of the transaction on interconnection prices and find that New Charter is likely to have an increased ability to raise interconnection prices. Specifically, by comparing paid peering revenues per broadband subscriber for Charter, Time Warner Cable, AT&T, Comcast, and Verizon, we find that larger providers have higher revenues per subscriber. To control for various factors other than size that may affect contractual interconnection rates, we use regression analysis. We conclude that the transaction is likely to result in higher interconnection revenues.

23. Furthermore, we look at the Netflix Inc. (Netflix) congestion period as a natural experiment. In 2013, many Netflix subscribers who purchased broadband from several U.S. BIAS providers experienced reductions in streaming quality (including rebuffering delays and low picture quality) that reached a peak during the last six months of 2013.[30] First we analyzed the observed performance of the Netflix stream on the networks of Charter, Time Warner Cable and Comcast (among other BIAS providers) during the congestion period and find that the performance on Time Warner Cable and Comcast was similar. We find that Charter's broadband subscribers experienced less congestion of the Netflix stream than Comcast and Time Warner Cable, but that relative to the other BIAS providers included in our analysis, the performance of the Netflix stream on the Charter network was reduced during the congestion episode. Next, we consider the number of gigabytes and hours per account per month for 10 BIAS providers for two time periods and once again note differences between Charter and Comcast and Time Warner Cable. We also conduct a regression analysis to estimate the intensity of the congestion experienced by Netflix subscribers who were broadband subscribers of the 10 BIAS providers. Our regression analysis, while not fully conclusive, suggests that New Charter likely will possess the ability to discriminate against online video providers

24. Finally, we look into subscriber reactions to the congestion period—whether consumers substituted VOD or PPV for Netflix. We find that New Charter will likely have an incentive to degrade OVD rivals' services in order to benefit from increased sales of VOD/PPV. Given data limitations, the analysis is conducted using Comcast as a proxy. For this analysis, we regress VOD/PPV revenues on the average number of Netflix streaming hours, the average bit rate, and designated market area (DMA)[31] and week fixed effects. The analysis indicates that Netflix hours and Comcast paid VOD/PPV services may be substitutes. To the extent this is the case, Comcast would have an incentive to degrade the Netflix stream to increase its sales of VOD/PPV. Since New Charter would have almost as many broadband

[30] *See* Network World, *Why Netflix Video Quality Has Fluctuated this Year*, (June 18, 2014), http://www.networkworld.com/article/2365181/service-providers/why-netflix-video-quality-has-fluctuated-this-year.html (Network World, Netflix Quality Article).

[31] A DMA is a Nielsen-defined television market consisting of a unique group of counties. The United States is divided into 210 DMA markets. Nielsen identifies television markets by placing each U.S. county (except for certain counties in Alaska) in a market based on measured viewing patterns and by MVPD distribution. *See Sixteenth Video Competition Report*, 30 FCC Rcd at 3274-75, para. 45 n.122.

subscribers as Comcast, its incentives to degrade OVD rivals' services will likely be similar to those of Comcast.

1. Interconnection Statistics and Trends

a. Capacities and Utilization by Mode of Interconnection

25. In this section, we analyze Charter's, Time Warner Cable's and third parties' recent interconnection capacities and utilization levels. Our analysis builds on our understanding of the Internet interconnection ecosystem as described in the Order, above.[32] The analysis in this section provides information that is used to compare the composition of traffic by type of interconnection of Charter and Time Warner Cable with the recent traffic patterns of other large BIAS providers, and to help to predict New Charter's future developments related to traffic patterns. We find that Charter's rates of growth of traffic are aligned with those of the other major BIAS providers, and that, in the absence of any conditions related to interconnection, in the medium term, New Charter's paid peering traffic as a share of its total traffic would likely exceed **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. We also find that, in the shorter term, New Charter would be able to replace most of the capacity it currently obtains from purchases of IP transit services with capacity obtained on a settlement-free basis.

Figure 1
Charter Monthly Capacity (Gbps)
January 2013-September 2015

[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]

Note: TS = capacity used to supply transit; TP = capacity used for transit purchase; PP = capacity used to provide paid peering; and SF = capacity used to provide settlement free peering.
Source: Charter Oct. 23, 2015, Updated Response to Information Request, Exhibit 111-1, Exhibit 111-2.

[32] *See supra* Order, Section V.C.1.a (describing Internet interconnection ecosystem).

Figure 2
Time Warner Cable Monthly Capacity (Gbps)
January 2013-September 2015

[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]

Note: TS = capacity used to supply transit; TP = capacity used for transit purchase, PP = capacity used to provide paid peering; and SF = capacity used to provide settlement free peering.
Source: Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Exhibit 84 –F.02, Exhibit 84 –F.04, Exhibit 84 –F.05 (Attachment F).

26. Figure 1 and Figure 2 above depict the interconnection capacities by type of interconnection for Charter and Time Warner Cable. In these two figures, the areas shaded with yellow represent settlement-free capacity, areas shaded with orange represent transit purchases, areas shaded with grey represent paid peering capacity, and the small area shaded with blue in Figure 2 represents transit capacity sold by Time Warner Cable. During the period January 2013 to July 2015, Charter's total interconnection capacity **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[33] In contrast, Time Warner Cable's interconnection capacity since mid-2014 consists **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** of capacity it provides to its paid peers (representing approximately **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** of total capacity).[34] While total capacity for Time Warner Cable has increased at annual rates varying between **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** percent, in the last two years of available data, almost all the increase in Time Warner Cable's total interconnection capacity took place through the **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**.[35]

[33] Charter Oct. 23, 2015, Updated Response to Information Request, Exhibit 111-1, Exhibit 111-2.

[34] Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment F.

[35] *Id.*

27. As Figure 3 and Figure 4 below indicate, this development is not unique to Time Warner Cable; both **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[36]

Figure 3

[BEGIN HIGHLY CONF. INFO.]

Comcast Monthly Capacity (Gbps)
January 2013-December 2014

[END HIGHLY CONF. INFO.]
Note: TS = capacity used to supply transit; TP = capacity used for transit purchase; PP = capacity used to provide paid peering; and SF = capacity used to provide settlement free peering.
Source: Comcast Response to Information Request, Exhibit 125.1.

[36] Comcast Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Michael D. Hurwitz, Counsel to Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 125.1 (filed Oct. 21, 2015) (Comcast Response to Information Request); Verizon Updated Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Meredith Singer, Counsel to Verizon Corporation, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 9.1 (filed Jan. 22, 2016) (Verizon Jan. 22, 2016, Updated Response to Information Request).

Figure 4

[BEGIN HIGHLY CONF. INFO.]

Verizon Monthly Capacity (Gbps)
December 2013-July 2015

[END HIGHLY CONF. INFO.]
Note: TS = capacity used to supply transit; TP = capacity used for transit purchase; PP = capacity used to provide paid peering; and SF = capacity used to provide settlement free peering.
Source: Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

28. Based on available data, we estimate that post-transaction, and in the absence of any conditions related to interconnection, in the medium term, at least **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of New Charter's interconnection capacity would consist of paid peering connections, similar to the paid peering shares of the other major BIAS providers. Furthermore, the data available to us indicates that in the shorter term post-transaction, New Charter would be able to use the settlement-free relationships that Time Warner Cable currently has with major backbone BIAS providers in order to replace most of its capacity available from purchases of IP transit services with capacity provided to it on a settlement-free basis.

b. Traffic Ratio Trends

29. The interconnection data in the record for Charter, Time Warner Cable, Comcast, and Verizon indicate that the rates of growth of inbound and outbound utilizations, as well as the rates of growth of total interconnection capacity have been **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[37] Figure 5 through Figure 8 summarize the growth rates for these firms. The rates of growth of Internet traffic and interconnection capacity for Time Warner Cable and Verizon recently appear **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[38] We find that this development is not likely

[37] Charter Oct. 23, 2015, Updated Response to Information Request, Exhibit 111-1, Exhibit 111-2; Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment F; Comcast Response to Information Request, Exhibit 125.1.; Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

[38] Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment F; Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

indicative of **[BEGIN HIGHLY CONF. INFO.]**
[END HIGHLY CONF. INFO.] for the Applicants individually or for New Charter.

30. We note that the rates of growth of total inbound traffic for Time Warner Cable have **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** the rates of growth of total capacity.[39] As such, the spare interconnection capacity available at Time Warner Cable's points of interconnection has experienced **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** during the summer months of 2015.[40] We think that these developments are transitory, and not indicative of **[BEGIN HIGHLY CONF. INFO.]**
[END HIGHLY CONF. INFO.] in order to exercise more control over interconnection.

31. Based on the interconnection data in the record, over the medium term, we expect inbound utilization levels and their rates of growth to **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** outbound utilization levels and their corresponding rates of growth for Charter and Time Warner Cable. As a result, the overall inbound to outbound traffic ratios for Charter and Time Warner Cable would **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** over time. We expect overall traffic ratios to **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** primarily as a result of the imbalance between inbound and outbound traffic **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. However, we do not expect the traffic ratios for the current settlement-free peers of Charter and Time Warner Cable to become unmanageable as a result.

Figure 5
Charter: Year-to-Year Percentage Changes
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Charter Oct. 23, 2015, Updated Response to Information Request, Exhibits 111-1-3.

[39] Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Exhibit 84 –F.02.

[40] *Id.*

Figure 6
Time Warner Cable: Year-to-Year Percentage Changes
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment F.

Figure 7
Comcast: Year-to-Year Percentage Changes
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Comcast Response to Information Request, Exhibit 125-1.

Figure 8
Verizon: Year-to-Year Percentage Changes
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

2. Predictive Analysis of Interconnection Rates

32. In Section V.C. of the Order, *supra*, we discuss whether the proposed transaction strengthens New Charter's bargaining position in the interconnection market. Below we empirically analyze the effect of the proposed transaction on interconnection rates. We evaluate whether larger BIAS providers charge higher interconnection rates than smaller BIAS providers. To construct our data set, we analyzed 136 interconnection contracts[41] currently in effect, submitted by five large BIAS providers (Charter, Time Warner Cable, AT&T, Comcast, and Verizon), in responses to our Information and Document Requests.[42] In addition to these contracts, we evaluated the interconnection revenues of these entities that were submitted in response to our information and document request.[43]

[41] One of the older contracts specified interconnection rates that were an order of magnitude larger than the other contracts in the data. We considered that an outlier, and deleted the corresponding observation from the data.

[42] *See* AT&T Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Maureen R. Jeffreys, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibits 4.1-4.24 (filed Oct. 30, 2015) (AT&T Response to Information Request); AT&T Updated Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Maureen R. Jeffreys, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibits 4.1-4.24 (filed Nov. 24, 2015) (AT&T Nov. 24, 2015, Updated Response to Information Request); Charter Oct. 23, 2015, Updated Response to Information Request, Exhibit 47-1; Comcast Response to Information Request, COM-COM-00000405—COM-COM-00001904; Time Warner Cable Response to Information and Data Request, transmitted by letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 41-02 (filed Oct. 13, 2015) (Time Warner Cable Response to Information Request); Verizon Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Meredith Singer, Counsel to Verizon Corporation, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, VZ00001—VZ001581. (filed Nov. 6, 2015)

[43] *See* Comcast Response to Information Request, Exhibit 125.1; Time Warner Cable Response to Information and Data Request, Attachment F; Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

33. The large BIAS providers identified above were asked to submit all their paid peering and settlement free contracts, as well as contracts for the provision of IP transit services.[44] These contracts involve a variety of counterparties, including large edge providers such as Akamai, Google, Netflix, and Facebook; Tier-1 providers such as Cogent and Level 3; and several smaller entities that purchase IP transit.[45] In addition, the BIAS providers were asked to submit monthly data concerning capacities, utilizations, and revenues by type of interconnection.[46] We use both contract data and the monthly revenue data to evaluate the potential impact of the transaction on interconnection rates.

34. The tables below present evidence that the interconnection rates charged by larger BIAS providers vary with respect to the size of the BIAS providers. Table 6 presents an estimate from SNL Kagan of the broadband subscribers for each of the BIAS providers, and Table 7 provides the monthly paid peering revenues per subscriber for each of the BIAS providers.[47] Table 7 includes the average monthly revenues per subscriber from paid peering calculated over the most recent six months of data available to us.[48] **[BEGIN HIGHLY CONF. INFO.]**

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[44] *See* Letter from William T. Lake, Chief, Media Bureau, FCC to Catherine Bohigian, Executive Vice President, Government Affairs, Charter, MB Docket No. 15-149 Attachment at 14 (Sept. 21, 2015) (Information Request to Charter); Letter from William T. Lake, Chief, Media Bureau, FCC to Steven Teplitz, Senior Vice President, Government Relations, Time Warner Cable, MB Docket No. 15-149 Attachment at 12 (Sept. 21, 2015) (Information Request to Time Warner); Letter from William T. Lake, Chief, Media Bureau, FCC, to Stacy Fuller, Vice President, Federal Regulatory, AT&T Services, Inc., MB Docket No. 15-149 Attachment at 1 (Oct. 9, 2015) (Information Request to AT&T); Letter from William T. Lake, Chief, Media Bureau, FCC to Lynn Charytan, Senior Vice President, Legal Regulatory Affairs, Senior Deputy General Counsel, Comcast, MB Docket No. 15-149 Attachment at 1 (Oct. 9, 2015) (Information Request to Comcast); Letter from William T. Lake, Chief, Media Bureau, FCC, to William H. Johnson, Esq, Vice President & Associate General Counsel, MB Docket No. 15-149 Attachment at 1 (Oct. 9, 2015) (Information Request to Verizon).

[45] *See supra* note 42.

[46] Information Request to Charter, Attachment at 32; Information Request to Time Warner Cable, Attachment at 24; Information Request to AT&T, Attachment at 1; Information Request to Comcast, Attachment at 1; Information Request to Verizon, Attachment at 2.

[47] AT&T did not submit any data for "paid peering." AT&T states that it provides a service it calls "Managed Internet Services" (MIS). AT&T did submit MIS data but given our limited knowledge of the characteristics of the service we did not use it to calculate revenues per subscriber. *See* AT&T Response to Information Request at 2-5. Charter did not participate in any paid peering arrangements during the relevant period, therefore Charter's revenues from paid peering are zero. *See* Charter Oct. 23, 2016, Updated Response to Information Request at 41.

[48] The average interconnection revenues per subscriber were calculated using total revenues for Comcast between July and December 2014, total revenues for Time Warner Cable between April and September 2015, and total revenues for Verizon during May and August 2015. *See* Comcast Response to Information and Data Request, Exhibit 125.1; Time Warner Cable Response to Information and Data Request, Attachment F; Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

Table 6
Number of High Speed Data Subscribers[49]
2015

BIAS Provider	High Speed Data Subscribers (000)
Comcast	21,962
Time Warner Cable	12,253
AT&T	16,028
Verizon	9,205
Charter	5,072

Source: SNL Kagan, 4Q2015

Table 7
Average Paid Peering Revenues
Per Residential Subscriber

[BEGIN HIGHLY CONF. INFO.]

BIAS Provider	Revenue per Residential Subscriber
Comcast	
AT&T	
Time Warner Cable	
Verizon	
Charter	

[END HIGHLY CONF. INFO.]

Source: Comcast Response to Information Request, Exhibit 125.1; Time Warner Cable Response to Information Request, Attachment F; Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1; SNL Kagan, 4Q2015.

35. *Regression analysis*. **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]. We use an ordinary least squares (OLS) and a Tobit model to regress contractual interconnection rates on various factors that may influence BIAS provider's revenues.

36. Interconnection contracts typically specify multiple rates that depend on capacity and utilization levels.[50] For our analysis, we chose the rates associated with the committed data rates, whenever these committed data rates are applicable.[51] When contracts specified either fixed monthly port charges or a price schedule without a committed data rate, or when the rates were a function of the traffic

[49] High Speed Data figures include DSL, FTTH/FTTN, Cable, Fixed-Wireless & Satellite with a minimum speed of 256 kbps. SNL Kagan, 4Q2015.

[50] Some of these rates also change over time. While summarizing complex contractual rates by a single number is a difficult endeavor, we strived to choose a rate representative for each contract in a consistent manner. For settlement-free contracts that specify greater than zero applicable rates when the traffic ratio exceeds a particular number, we considered the rates in effect given the last known configuration of inbound and outbound traffic.

[51] The Committed Data Rate (CDR) is the minimum data transfer rate contractually guaranteed by a BIAS Provider.

ratios, we imputed the applicable per-Mbps rates using the most recent 95 percentile utilization levels in the data submitted by AT&T, Comcast, and Time Warner Cable.[52]

37. We exclude both Charter and Verizon from this regression analysis because Charter did not sell transit or participate in paid peering arrangements during the relevant time period,[53] and because **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.],[54] we restrict our analysis to interconnection rates specified in the contracts submitted by AT&T, Comcast, and Time Warner Cable.

38. We use OLS and a Tobit model to evaluate the differences between the contractual interconnection rates of the BIAS providers in our sample. The dependent variable in the OLS regression is the logarithm of the contractual interconnection rate ($/Mbps). For the Tobit regression the dependent variable is the contractual interconnection rate. As independent variables in both OLS and Tobit regressions we use: BIAS provider fixed effects, counterparty fixed effects, contract vintage; and a dichotomous variable equal to 1 for on-net access and 0 for off-net access.[55] The BIAS provider fixed effects control for differences across the BIAS providers (such as the number and demographic characteristics of its broadband subscribers, or the quality of the broadband connection it provides to its customers) that might affect interconnection rates across the board. We use counterparty fixed effects to control for differences across counterparties that are invariant with respect to the BIAS providers in our data.[56] We also control for the vintage[57] of the contract to account for any potential time trends in the data.[58]

39. The dependent variable in the OLS regressions is the logarithm of the interconnection rate. As such, the OLS regression cannot account for observations for which the interconnection rate is equal to zero. However, in the Tobit specification we do consider these observations, thus allowing a comparison across BIAS providers of rates that include zeroes.[59] Accordingly, the Tobit regression includes more observations than the OLS regression. Table 8 below presents the results of the regressions.

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[52] AT&T Nov. 24, 2015, Updated Response to Information Request, Exhibits 9.1-9.3; Comcast Response to Information Request, Exhibit 125.1; Time Warner Cable Response to Information Request, Attachment B; Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

[53] *See* Charter Oct. 23, 2016, Updated Response to Information Request at 39, 41.

[54] Verizon Jan. 22, 2016, Updated Response to Information Request, Exhibit 9.1.

[55] In general, we consider peering relationships to be "on-net" because such agreemets only provide for traffic exchange between BIAS provider parties and their respective customers. *See supra* Order, para. 98. In contrast, we consider transit services to be "off-net" because transit providers give their customers access to the full Internet and give the rest of the Internet access to their transit customers. *See id.*

[56] For example, the fact that Google earns significant revenues from advertising might affect the interconnection rates it pays to all the eyeball networks with which it interconnects. A fixed effect for Google controls for this (and other relevant characteristics of Google as a counterparty to an interconnection contract) that are invariant with respect to the BIAS providers in the data.

[57] Vintage is defined as the year the contract was signed.

[58] Since the estimated vintage dummies do not indicate a persistent trend in interconnection rates over time, we did not include time trend variables in our regressions.

[59] A Tobit regression permits estimation in situations where the dependent variable, as in our case with the interconnection price, cannot take negative values, and instead of a negative value a value of zero is observed for the dependent variable.

Table 8
Rate Regressions

[BEGIN HIGHLY CONF. INFO.]

	OLS	Tobit
	(1)	(2)
Comcast		
Time Warner Cable		
on-net		
Vintage		
Counterparty		
Constant		
N		

[END HIGHLY CONF. INFO.]

Note: Standard errors are clustered by BIAS provider. BIAS provider fixed effects are calculated with respect to AT&T. * - significant to 10 percent; *** - significant to 1 percent.

40. The results in Table 8 indicate that,[60] controlling for the identity of the counterparty, the contract vintage and for on- or off-net access, the interconnection rates charged by **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[61]

41. Absent any conditions related to interconnection, the transaction may have three potential effects on interconnection rates and revenues in the medium- to long-term. The first potential effect is a size effect: New Charter would have approximately **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** more broadband subscribers than Time Warner Cable and Bright House Networks combined. As a result of this effect, if Time Warner Cable's interconnection rates were to

[60] To save space, Table 8 does not report the parameter estimates or standard errors for a large number of Vintage and Counterparty control variables, but only reports whether they were included in the regression.

[61] Since Time Warner Cable's fixed effect is statistically indistinguishable from zero, in the log-linear specification (1) the estimated fixed effect for Comcast indicates that Comcast's rates are **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** than Time Warner Cable's rates **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** percent.

apply to traffic destined for Charter's current broadband customers, and since Charter currently does not charge for paid peering or transit,[62] the interconnection revenues for New Charter would increase by approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.

42. The second potential effect of the transaction on interconnection rates is a leverage effect: New Charter, because of its larger base of broadband customers, may be able to negotiate more favorable terms with its interconnection partners. As a result of the transaction, New Charter in terms of size and demographic composition of its broadband subscribers would more closely resemble Comcast.[63] Therefore, New Charter may be able to charge interconnection rates comparable to those charged by Comcast. **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

43. A third effect of the transaction represents a savings for New Charter. If the transaction is approved, New Charter will be able to save approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million per year that Charter currently pays for IP transit.[64] This savings arises because New Charter would be able to obtain settlement-free interconnection with the parties from which it currently purchases IP transit.

44. Given the data available to us, the overall effect of the transaction on interconnection rates and revenues is uncertain. However, the potential size and leverage effects indicate that the combined annual interconnection revenues for Charter, Time Warner Cable, and Bright House Networks over the medium- to long-run may rise by approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.[65] Given Time Warner Cable's current annual interconnection revenues of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million,[66] the combined impact of the estimated size and leverage effects represents an increase in interconnection revenues of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** million per year.

3. Potential Harm from Reduction in Streaming Quality

45. Another way that New Charter may have to protect its video business from OVDs is to reduce the streaming quality of the OVD. Below, we look at the Netflix congestion period as a natural experiment. In 2013, many Netflix subscribers who purchased broadband from several U.S. BIAS providers experienced systematic reductions in streaming quality (including rebuffering delays and low picture quality) that reached a peak during the last six months of 2013.[67] First we look at how Charter and Time Warner behaved during this period and compare their behavior to Comcast's, as well as evaluate the intensity of the congestion. Next, we consider whether subscribers increased their VOD or PPV purchases during this congestion period.

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[62] *See supra* note 53.

[63] New Charter's broadband subscriber share would be closer to Comcast's but would still be approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent less. *See Form 477 PN*; Comcast Response to Information Request, Exhibits 110.1(b), 110.1(e). Further, New Charter will gain additional urban customers; therefore the demographic composition of its subscriber base also would more closely resemble Comcast's.

[64] Derived from Charter Oct. 23, 2015, Updated Response to Information Request, Exhibits 111-1-3.

[65] The estimated combined impact of the size and leverage effects is equal to **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[66] Time Warner Cable Response to Information Request, Attachment F.

[67] *See* Network World, Netflix Quality Article.

a. Congestion Data Analysis

46. In 2013, many Netflix subscribers who purchased broadband from several U.S. BIAS providers experienced systematic reductions in streaming quality (including rebuffering delays and low picture quality) that reached a peak during the winter of 2013-2014.[68] The ability to reduce streaming quality is one of the tools that New Charter may be able to use in order to harm OVDs. To assess whether New Charter would have an increased incentive and ability to reduce OVD streaming quality, we analyze whether and to what extent the top 10 BIAS providers in the United States,[69] including Charter, Time Warner Cable, and Comcast, experienced congestion that degraded the performance of Netflix on their networks during the winter of 2013-2014.

47. First we consider these BIAS providers' reactions to Netflix's decision to begin streaming high definition content. Next we analyze the Netflix traffic patterns and the number of hours streamed per Netflix account per month for the largest 10 BIAS providers that also provide video services, including the Applicants. Finally, we perform a regression analysis to evaluate the intensity of the congestion experienced by Netflix subscribers who were broadband subscribers of one of the top 10 BIAS providers in the U.S. These analyses find that the quality of the Netflix stream during the peak of congestion was poorer for the larger BIAS providers. Time Warner Cable and Comcast have both had similar congestion problems that significantly degraded the performance of Netflix. We find that while Charter's congestion problems differed from that of Comcast and Time Warner Cable, the data indicate that the performance of the Netflix stream was slightly degraded for Charter, too.

48. We first consider how Charter, Time Warner Cable, and Comcast reacted to Netflix's decision to begin streaming high definition content. Around September 25, 2013, Netflix started streaming 1080p, or high definition (HD) content to BIAS providers that were not utilizing its Open Connect[70] platform (e.g., Charter, Time Warner Cable, Comcast).[71] Figure 9 below illustrates Charter's, Time Warner Cable's, and Comcast's reactions to Netflix streaming HD content. Figure 9 shows that when Netflix began streaming HD content **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

49. Looking at Figure 9, it appears that **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.] before Netflix started streaming HD content to the BIAS providers that did not use its Open Connect platform. One possible explanation for this is that Netflix adjusted its delivery of content to avoid congestion. Another explanation is that these congestion data are averages, and averages may mask

[68] *Id.*

[69] The 10 BIAS providers are AT&T, Bright House, Cablevision Systems Corporation (Cablevision), CenturyLink, Inc. (CenturyLink) Charter, Comcast, Cox Communications (Cox), Frontier Communications Corp. (Frontier), Time Warner Cable, and Verizon.

[70] Netflix Open Connect is a partnership with BIAS providers to localize substantial amounts of traffic as a means of delivering Netflix content the most efficient way possible. *See* Netflix, *Netflix Open Connect*, https://openconnect.netflix.com/en/ (last visited Mar. 7, 2016).

[71] Google Fiber, Cox, Cablevision and Suddenlink Communications appear to be the only large(ish) BIAS providers that employed Open Connect during the congestion period. *See* Steve Donohue, *Netflix 4K Ultra HD launch could boost Cablevision, Cox, Suddenlink*, Fierce Cable (Nov. 4, 2013), http://www.fiercecable.com/story/netflix-4k-ultra-hd-launch-could-boost-cablevision-cox-suddenlink/2013-11-04.

significant geographical variation in bitrates (e.g., if New York and Los Angeles experienced significantly more congestion than other areas for Time Warner Cable).

Figure 9
Charter, Time Warner Cable, and Comcast Bitrates
Jan. 2012-July 2014

[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]

Source: Netflix Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Sarah K. Leggin, Counsel for Netflix, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit NFX-FCC-00000067 (filed Oct. 23, 2015) (Netflix Response to Information Request).

50. Table 9 and Table 10 below present the traffic volumes (in GB per account per month) and the number of Netflix hours streamed per account per month for the top 10 BIAS providers, including the Applicants. Table 9 reports these data for the time period February 2013 through July 2014 and Table 10 reports data for the time period March 2014 through July 2014.[72] For the time period reported in Table 9, Charter **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** mean number of GB per account per month and is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in terms of hours per account per month**[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. For the time period reported in Table 10, Charter once again **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** mean number of GB per account per month and is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in terms of hours per account per month.

[72] The February 2013-July 2014 reflects the entire time period for which we have data. The March 2014 through July 2014 reflects the post-congestion period after Netflix and Comcast signed an interconnection agreement. *See* Edward Wyatt and Noam Cohen, *Comcast and Netflix Reach Deal on Service*, New York Times (Feb. 23, 2014), http://www.nytimes.com/2014/02/24/business/media/comcast-and-netflix-reach-a-streaming-agreement html?_r=0.

Time Warner Cable and Comcast are ranked **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**, respectively in terms of hours per account per month for the time period in Table 9. For the time period in Table 10, Time Warner and Comcast are ranked **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**, respectively in terms of GBs per account per month and hours per account per month.

Table 9
Traffic Volume: GB Per Account Per Month
February 2013—July 2014

[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Netflix Response to Information Request, Exhibit NFX-FCC-00000067.

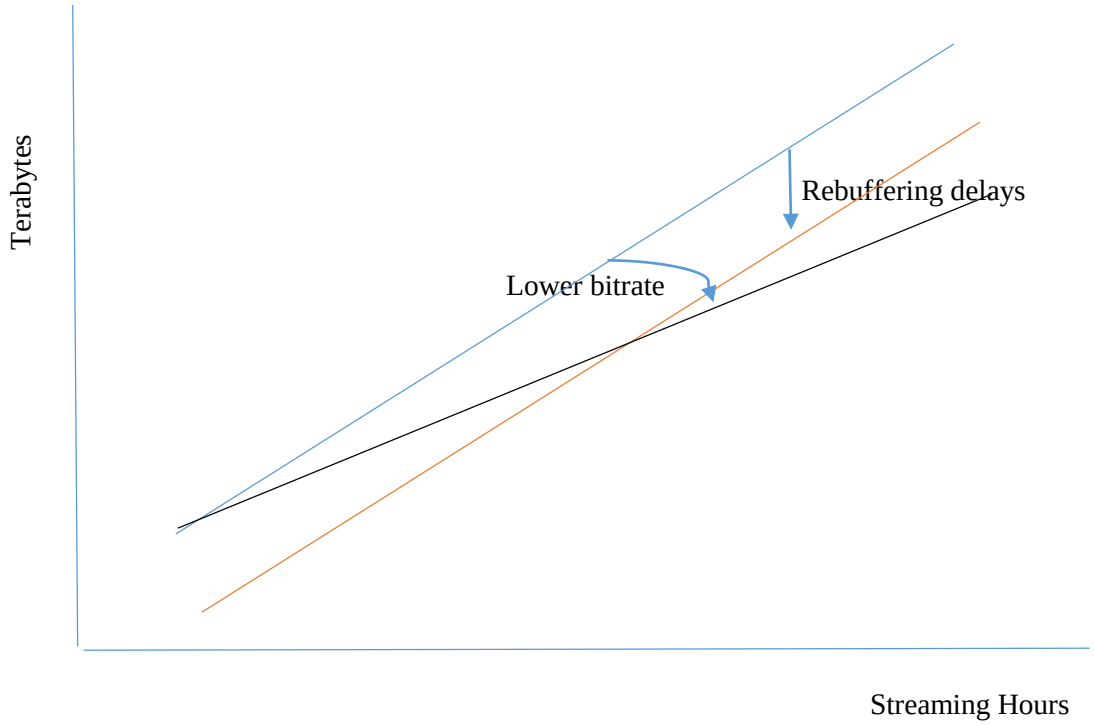
Table 10
Traffic Volume: GB Per Account Per Month
March 2014—July 2014

[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Netflix Response to Information Request, Exhibit NFX-FCC-00000067.

51. *Relationship between volume of traffic and streaming hours*. Next, we consider the relationship between the volume of traffic and the number of streaming hours. We expect that this relationship should be increasing, as a higher number of quality-constant streaming hours clearly requires a higher volume of traffic. Differences in streaming quality (or bitrates), however, rotate this relationship counterclockwise for higher quality, or clockwise for lower quality, whereas delays in streaming due to rebuffering shift this relationship down, as shown in Figure 10 below.

Figure 10
Relationship between Traffic Volumes and Hours Streamed



52. *Regression Analysis*. To evaluate the intensity of the congestion experienced by Netflix subscribers who were broadband subscribers of one of the top 10 BIAS providers in the U.S., we use data supplied by Netflix[73] to regress the monthly volumes of traffic terminating at a BIAS provider on the number of hours streamed by broadband subscribers of that BIAS provider for the period January 2013 to August 2014. We include as explanatory variables BIAS provider fixed effects, interactions between the BIAS provider and the number of streaming hours, the monthly number of Netflix accounts estimated by Netflix for each of the BIAS providers in the sample. Using interactions between these variables and a dichotomous variable that characterizes the peak of the congestion period we also evaluate the changes in these relationships.

53. The regression equation is:[74]

$$TB_{it} = const + C_i + \beta_1 * Viewhours_{it} + \beta_{1i} * \{Viewhours_{jt} | j=i\} + \beta_2 * Accounts_{it} + \beta_{2i} * \{Congestion_t * \text{BIAS provider } j | j=i\} + \beta_{3i} * \{Viewhours_{jt} * Congestion_t | j=i\} + \varepsilon_{it},$$

where the dependent variable TB_{it} represents Terabytes of traffic terminating at BIAS provider i during month t; C_i are the BIAS provider fixed effects that are similar to the shifts caused by rebuffering delays depicted in Figure 10 above; *Viewhours* represents the number of streaming hours for an BIAS provider in a given month, *Accounts* represents the number of Netflix accounts estimated by Netflix to obtain their primary broadband connection from a given BIAS provider; and *Congestion* is an indicator variable equal to one during the nadir of the congestion (October 2013-January 2014) and zero otherwise. The

[73] *See* Netflix Response to Information Request, Exhibit NFX-FCC-00000067.

[74] Table 11 below presents robust OLS estimates; truncated regression coefficients (TBit ≥ 0) are very similar. We attempted to also control for potential across-the-board changes in bitrates associated with HD-content streaming that occurred around September 25, 2013, but since these changes were largely contemporaneous with the peak of the congestion, the explanatory power of these changes is significantly reduced.

coefficients of interest are C_i, β_{1i} (representing BIAS provider-specific slope coefficients similar to the rotations caused by differences in bitrates depicted in Figure 10 above), β_{2i} (representing changes in the BIAS provider fixed effects during the congestion period), and β_{3i} (representing changes in the slope of the slope coefficients for a BIAS provider during the congestion period). A negative and statistically significant coefficient C_i indicates that the average level of rebuffering delays for BIAS provider *i* is larger than for the BIAS provider chosen as reference (here, AT&T).

54. The results are presented in Table 11 below. The BIAS provider names in rows 5-13 of the table correspond to the BIAS provider-specific estimated coefficients C_i (relative to AT&T, which is used as reference in the regressions). The BIAS provider-specific estimated slope coefficients, β_{1i}, are presented in rows 14-22, and the estimated changes attributed to congestion (β_{3i}) are in rows 23-40.

55. **[BEGIN HIGHLY CONF. INFO.]**

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Table 11
Evaluating the Extent of Congestion
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: The dependent variable is the number of terabytes streamed monthly for a BIAS provider. Standard errors clustered by BIAS provider. * - significant to 5%; ** - significant to 1%; *** - significant to 0.1%.

b. VOD Revenue Analysis

58. This section shows that Netflix streaming services and both paid VOD and PPV services are likely substitutes. Consequently, BIAS providers that sell either VOD or PPV have an incentive to

harm Netflix, and because the benefits of such harm would be substantially greater for New Charter than for the Applicants individually (because New Charter would capture the benefits of the harm over all three separate footprints), New Charter's incentive to engage in such behavior is increased. To the extent OVD services and paid VOD and PPV are also substitutes, as is likely, New Charter would have an incentive to harm OVDs, and the transaction would increase that incentive.

59. There is some disagreement in the record about whether OVDs are complements or substitutes to BIAS providers that are also MVPD providers.[75] The Applicants claim that because OVDs provide content that is a complement to their video services, the Applicants would have no incentive to harm OVDs.[76] However, if the two are substitutes, then a BIAS provider may benefit from degrading OVD service for its broadband customers because its customers would substitute away from degraded OVD content and into video content sold by the MVPD.

60. The congestion episode involving the visible degradation of Netflix content available to certain BIAS provider subscribers during the second half of 2013 and in early 2014 provides us with an opportunity to measure some of the economic effects of the degradation. As discussed in Section II.B.3.a. above, the analysis indicates that Time Warner Cable and Comcast both behaved differently than Charter during the congestion time period. Besides changing BIAS provider /MVPD providers in response to Netflix streaming being degraded, consumers also may increase their purchases of VOD or PPV programming, increasing the MVPD's revenues from these services. This increase in revenues from VOD and PPV service may provide an incentive to degrade OVD streams by BIAS providers that offer video services.

61. The Commission requested information and data on the Applicants' and Comcast's sales of VOD/PPV services.[77] Given that Comcast and Time Warner Cable behaved in a similar manner during this congestion period,[78] our intention was to conduct an analysis of the VOD/PPV revenues for both Time Warner Cable and Comcast. However, the data provided by Time Warner Cable is limited,[79] and therefore we only conduct the analysis for Comcast. While arguably Comcast is different from Time Warner Cable (so that the magnitudes of the economic effects might vary), the direction of these effects is very likely the same for Comcast, Time Warner Cable, and New Charter. Specifically, if the analysis of the effects of Netflix congestion reveals that Netflix content and VOD or PPV content sold by Comcast are substitutes, then, in all likelihood, Netflix content and VOD/PPV content that would be sold by Time Warner Cable and New Charter are also substitutes. Further, New Charter's incentives to degrade OVD

[75] The Applicants argue that OVD services complement their video products. *See, e.g.*, Scott Morton Decl. at para. 58; Scott Morton Reply Decl. at paras. 19-21, 31-49, 77, 82-100. Some commenters assert that OVDs are competitors to broadband providers that also offer MVPD services. *See, e.g.*, DISH Petition at 4, 15-20, 46-55, 68; Petition to Deny of Public Knowledge, Common Cause, Consumers Union, and Open Mic, MB Docket No. 15-149, at 6-18 (filed Oct. 13, 2015) (Public Knowledge et al. Petition); WGAW Petition at 13-16, 23-30.

[76] The Applicants argue that OVD services complement their video products. *See, e.g.*, Scott Morton Decl. at para. 58; Opposition at 16-18; Scott Morton Reply Decl. at paras. 19-21, 31-49, 77, 82-100.

[77] Information Request to Charter, Attachment at 31-32; Information Request to Time Warner Cable, Attachment at 24; Information Request to Comcast, Attachment at 1.

[78] *See supra* Section II.B.3.a.

[79] *See* Time Warner Cable Response to Information Request at 36. Data at the zip code level is only available at the time it was provided and is now available to only approximately 54 percent of Time Warner Cable's set top boxes. *Id.* Charter's data is more robust, however, its behavior during the congestion period was different than Time Warner Cable's and Comcast's, and therefore it is excluded from the analysis. For a description of Charter's VOD/PPV data, *see* Charter October 23, 2015, Updated Response to Information Request at 30-37.

streaming are likely to increase as a result of the transaction since New Charter's video subscribership would increase to a level closer to Comcast's.[80]

62. To measure the effect of Netflix congestion on Comcast's revenues from sales of VOD and PPV content, we used weekly data provided by Netflix[81] concerning the quality of the Netflix video stream by type of device at the DMA level, and daily DMA-level VOD/PPV sales, as well as free VOD hours information, provided by Comcast.[82] We sought to estimate how the sales of VOD/PPV content sold by Comcast are affected by the number of hours of Netflix content streamed by customers of Comcast's broadband service using the following estimating equation:

$$R_{idw} = \alpha_i + \beta_i Hours_{dw} + \lambda_i Avg_BR_{dw} + \zeta_{iw} + \zeta_{id} + \varepsilon_{idw}$$

where R_{idw} represent revenues from the sale of service *i* (VOD, or PPV) in DMA *d* and in week *w*, α_i is the regression constant, $Hours_{dw}$ represent the average number of Netflix hours streamed in DMA *d* and in week *w*, Avg_BR_{dw} represents the average bitrate of the Netflix service in DMA *d* and in week *w*, ζ_{iw} *and* ζ_{id} represent DMA- and week-specific fixed effects, and ε is an error term. For the dependent variable, R_{idw}, we consider revenues from the sale of VOD or PPV service during peak and non-peak hours[83] separately and for free VOD we use hours instead of revenue to assess the effects of the Netflix congestion period.

63. A negative and significant estimate β_i would indicate that a reduction in the number of Netflix hours streamed in a DMA is associated, all other things equal, with an increase in the revenues of service *i*, and thus that Netflix content and VOD/PPV content may be to some degree considered substitutes. Conversely, a positive and significant estimate β_i would indicate that Netflix content and VOD/PPV content may be considered complements. However, OLS estimates of coefficients β_i are likely biased for two important reasons. First, the factors unobserved in the data that plausibly affect Netflix hours streamed in a DMA (e.g., weather) are also likely to affect the contemporaneous sales of VOD/PPV content by Comcast in that DMA. The week- and DMA-specific fixed effects used in the regression may mitigate some of the resulting estimation bias.

64. Second, the extent of degradation itself may be endogenous to the relationship between hours of Netflix viewed and VOD revenues. In other words, if actions taken by Comcast (such as failure to provide prompt and adequate capacity augmentation on interconnection links with the relevant settlement-free peers), affected the performance of the Netflix stream, then the extent of degradation might have been affected by the relationship expected by Comcast between congestion, Netflix hours streamed, and VOD/PPV revenue.[84] To address this endogeneity, we estimate the above equation using the method of instrumental variables. We use a lagged variable of $Hours_{dw}$ ($Hours_{dw-1}$ --the average number of Netflix hours streamed per account in the same DMA during the previous week) as the instrument. The results are presented in Table 12 below.

[80] *See supra* note 63.

[81] *See* Netflix Response to Information Request, Exhibit NFX-FCC-00000067.

[82] *See* Comcast Response to Information Request, Exhibits 5.8, 6.6.

[83] Peak periods occur daily between 7 PM and 11 PM. Non-peak hours occur outside of peak hours.

[84] For example, if—all other things equal—Comcast expected a marginal increase in VOD/PPV revenues associated with a reduction in the number of Netflix hours streamed, to the extent possible, Comcast would have acted so as to marginally decrease the number of Netflix hours streamed.

Table 12
Effect Netflix Congestion on Comcast VOD/PPV Revenues and Hours
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: FE indicates fixed effects. t-statistics provided in parentheses. * - significant to 5%; ** - significant to 1%; *** - significant to 0.1%. Standard errors clustered by DMA.

65. The results in columns 1 through 4 of Table 12 indicate that an increase by one hour of the average number of hours of Netflix streamed per account in a DMA in a given week was associated with a statistically significant reduction of VOD revenues earned by Comcast during peak and non-peak periods, as well as a statistically significant reduction in PPV revenues earned by Comcast. These results indicate that Netflix content and paid VOD and PPV content sold by Comcast may be substitutes in the sense that a reduction in the number of hours of Netflix content streamed are associated with an increase in paid VOD and PPV consumption. Notably, the estimated magnitudes of these effects are economically significant and indicate that an increase by one hour of the average number of Netflix hours streamed (per account) is associated with a reduction of Comcast revenues of roughly **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** from sales of paid VOD, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** from sales of PPV content, and **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** from sales of all types of paid content.

66. We also found that an increase by one hour of the average number of hours of Netflix streamed per account in a DMA in a given week was associated with a statistically significant increase in the number of free video-on-demand hours consumed by Comcast customers in that DMA in that week (see columns 5 and 6 of Table 12). This is inconsistent with Netflix programming and Comcast free VOD being substitutes for Comcast customers. One possibility for our results in columns 5 and 6 is that factors other than the quality of the Netflix stream that increase the number of Netflix hours streamed (such as bad weather) also increase the number of free VOD hours consumed by Comcast customers, and that the sets of consumers who watch free and paid VOD are largely disjoint.

67. An important question is whether congestion -- manifested as reductions in bitrates, or increased delays -- has a measurable effect on the number of Netflix hours streamed. If lower bitrates decrease the number of hours of Netflix streamed, then a strategy of congesting interconnection links with Netflix results in a lower number of hours of Netflix content streamed, which in turn, as indicated by the results in Table 12 above, might result in higher, on average, VOD and PPV revenues for Comcast. To answer this question, we estimate the effect of changes in the quality of the Netflix stream measured by bitrates, rebuffering episodes, and play delays, on the average number of hours streamed per Netflix account.

68. To measure the relationship between streaming hours and congestion we employed the following specification:

$$Hours_{dw} = \alpha_d + \alpha_w + \beta_1 Avg_BR + \beta_2 Avg_playdelay + \beta_3 Avg_rebuff + \varepsilon_{dw}.$$

69. The dependent variable is the average number of Netflix hours streamed per account in a week in a DMA. The right hand side variables represent averages of (in a DMA during a particular week) bit rates, number of rebuffering episodes, and total play delays experienced by Comcast subscribers. The estimating equation includes DMA and week fixed effects. A positive and statistically significant coefficient on average bitrates indicates that an increase in bitrates is associated with an increase of the average number of Netflix hours. Negative and statistically significant coefficients on average play delay and average number of rebuffering episodes also indicate that an increase in the quality of the Netflix stream is associated, all other things equal, with a greater number of Netflix hours streamed. Since average bitrates might be affected by both Netflix in its attempts to mitigate the effects of congestion, and by customers who might choose to watch Netflix on devices that require lower bitrates (e.g., on a portable device rather than on a high-definition device) during congestion episodes, we use the congestion episode as an instrument for bitrates.[85] Average bitrates are instrumented using a dummy equal to one during the congestion episode (October 2013 to February 2014), and zero otherwise. The regression results are presented in Table 13 below.

Table 13
Relationship between Streaming Hours and Congestion
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: FE denotes fixed effects. The first-stage F statistic is equal to 1528. Standard errors clustered by DMA.

70. The results in Table 13 show clearly that, since the estimated coefficient on average bitrates is positive and significant, reductions in average Netflix bitrates are associated with reductions in the number of hours of Netflix content streamed.

71. The data entered into the transaction's record by Netflix and Comcast indicate that VOD and PPV content sold by Comcast may be substitutes for Netflix content, and that the number of Netflix hours streamed is positively and significantly affected by bitrates. While these results concern Netflix subscribers who were Comcast broadband subscribers, we are unaware of any reasons to think that, at least qualitatively, these results would not hold for other large BIAS providers /MVPDs. Accordingly,

[85] When the factors unobserved in the data that affect hours streamed are correlated with bitrates, the estimated coefficient on bitrates is biased. To deal with this potential bias, we use a variable (instrument) that is correlated with bitrates, but not correlated with the unobservable variables that affect hours streamed (such a variable is the existence of congestion).

these results indicate that, all other things equal, a BIAS provider /MVPD may earn higher VOD and PPV revenues by following a strategy of congesting OVDs' access to its broadband network.

C. OVD Entry and Cable Broadband Churn

72. The Applicants argue that a substantial amount of their subscriber churn stems from the competitive environment provided by alternative broadband services offered by wireless, DSL and FTTH.[86] Further, the Applicants claim that because New Charter would not have early termination fees or "long-term lock-in provisions seen elsewhere in the industry," it would be "easy" for New Charter broadband customers to switch providers if they are dissatisfied with the company's treatment of edge content.[87] Dr. Scott Morton claims that Charter experiences a high degree of churn among its broadband products.[88] Further, Dr. Scott Morton, using information from a 2010 FCC Report claims that 20 percent of subscribers switched broadband providers for reasons other than moving residences.[89] However, these figures include customers that disconnected their Charter broadband service because they moved and customers that left Charter because of failure to pay.[90]

73. We evaluate the Applicants' claims by analyzing the churn data submitted in response to the information requests.[91] We consider the reasons subscribers churn and whether churn is different in areas where the Applicants face competition from other broadband service providers. Further, we consider long-run (i.e., twelve-month) churn rates. We conclude that, while there is evidence that indicates that broadband subscriber churn, for each of the Applicants, responds in predictable ways to the local competitive environment that the Applicant faces, the raw monthly churn rates that Dr. Scott Morton cites and uses in her analysis overstate the degree to which consumers voluntarily switch their broadband services to competing providers. As a result, we believe that Dr. Scott Morton's assessment exaggerates the strength of competition as a disciplining force that constrains New Charter's incentives to foreclose OVDs or other edge providers.

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[86] Scott Morton Reply Decl. at para. 124.

[87] Application of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to the Transfer of Control of Licenses and Authorizations, MB Docket No. 15-149, at 47-48 (filed June 25, 2015); *see also* Scott Morton Decl. at para. 39.

[88] *Id.*

[89] Scott Morton Reply Decl. at para. 125.

[90] *See* Zarakas Decl. at para. 4.

[91] Advance/Newhouse Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Steven J. Horvitz, Counsel to Advance/Newhouse, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Attachment C.1 and C.2 (filed Oct. 13, 2015) (Advance/Newhouse Response to Information Request); Charter Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from John L. Flynn, Counsel to Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 108(c)-1-108(c)-3 (Attachment C.1) (filed Oct. 27, 2015) (Charter Oct. 27, 2016, Updated Response to Information Request); Charter Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from John L. Flynn, Counsel to Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 108(c)-4-108(c)-6 (Attachment C.2) and Exhibit 108(c)-19-108(c)-21 (Attachment C.7) (filed Jan. 21, 2016) (Charter Jan. 21, 2016, Updated Response to Information Request); Time Warner Cable Updated Response to Sept. 21, 2015, Information and Document Requests transmitted by letter from Matthew A. Brill, Counsel to Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 81.C.2 v.2 (Attachment C.2) and Exhibit 81.C.7 v.2 (Attachment C.7) (filed Dec. 23, 2015) (Time Warner Cable Dec. 23, 2015, Updated Response to Information Request). Time Warner Cable Updated Response to Sept. 21, 2015, Information and Data Requests transmitted by letter from Matthew A. Brill, Counsel to Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 81.C.1 v.3 (Attachment C.1) (filed Jan. 19, 2016) (Time Warner Cable Jan.19, 2016, Updated Response to Information Request).

1. Applicant Churn Analysis by Competitive Footprint

74. To evaluate the record on whether Applicant churn is indicative of a competitive marketplace and that any attempts to behave anti-competitively towards OVDs would result in increased churn we used Applicant data to analyze the degree to which subscribers leave by product and bundle type across each Applicant's entire footprint and in areas where subscribers are more likely to find a comparable broadband provider. Overall, we find that voluntary churn rates are very low and are consistent with the hypothesis that switching costs are generally high and that many broadband subscribers do not view themselves as having a good alternative to their incumbent cable provider.

75. Dr. Zarakas claims that his analysis shows that **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** of residential customers leave the Applicants networks for involuntary reasons.[92] Specifically, he finds that voluntary churn for each of Applicants is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of total monthly churn and only about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent of total monthly churn for standalone broadband subscribers.[93] Dr. Zarakas also looks at a time trend and notes that churn rates have been **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** for Charter and Bright House and have **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** for Time Warner Cable.[94]

76. Below we look at how each of the Applicants define churn reason categories. We then utilize the Applicants' disconnect data to compare the reasons consumers churn. Next, we analyze the Applicant's churn by reason category for areas where either AT&T or Verizon are present. Finally, we extend the analysis of the areas where either AT&T or Verizon are present, by using regression analysis to account for demographic and marketplace conditions.

a. Churn Reason Categories

77. We analyze the Applicants' churn data on the total number of disconnects for each month and zip code combination from June 2012 through August 2015 by product and bundle type.[95] These data disaggregate total disconnects into four main-level reason categories according to internal policies: (1) movers; (2) voluntary; (3) non-payment; and (4) "all other."[96] There was significant variation among the Applicants in how disconnect categories were generated based on internal billing system and customer call center policies. In order to maintain comparability of churn rates across each of the Applicants, we restrict the churn analysis to residential subscribers only for each Applicant.

78. Table 14, Table 15, and Table 16 provide an itemized list of the reason codes for Charter, Time Warner Cable, and Bright House.

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[92] Zarakas Decl. at paras. 4, 10.

[93] *Id.* at paras. 4, 11, Table 2A and Table 2B.

[94] *Id.* at paras. 4, 13, Figure 1A and Figure 1B.

[95] Advance/Newhouse Response to Information Request, Attachment C.2; Charter Jan 21, 2016, Updated Response to Information Request, Attachment C.2; Time Warner Cable Dec., 23, 2015, Updated Response to Information Request, Attachment C.2.

[96] Advance/Newhouse Response to Information Request, Attachment C.2; Charter Jan 21, 2016, Updated Response to Information Request, Attachment C.2; Time Warner Cable Dec., 23, 2015, Updated Response to Information Request, Attachment C.2; *see also*, Advance/Newhouse Response to Information Request at Report 60d-Disconnect Description for C.2; Charter Oct. 23, 2015, Updated Response to Information Request at 28-29; Time Warner Cable Oct. 16, 2015, Updated Response to Information Request at 34-35.

Table 14
Charter Disconnect Categories by Reason Code
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Charter Oct. 23, 2015, Updated Response to Information Request at 28-29.

79. Reasons for disconnects are assigned by Charter's call center representatives and mapped into the company's **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.[97] Table 14 lists the reasons for disconnection contained in Charter's **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** that map into the four reason categories enumerated in the information request.[98] Charter recognizes that the Commission's categories do not correspond precisely to the categories tracked by Charter.[99] Charter argues that measuring of **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[100]

[97] *See* Letter from John L. Flynn, Counsel for Charter, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, at 2 (filed Feb. 23, 2016) (Charter Feb. 23, 2016, *Ex Parte* Letter). Due to data entry issues some entries are given a reason category of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. *See* Charter Feb. 23, 2016, *Ex Parte* Letter at 2.

[98] Information Request to Charter, Attachment at 31; *see also* Charter Feb. 23, 2016, *Ex Parte* Letter at 2-5.

[99] *See* Charter Feb. 23, 2016, *Ex Parte* Letter at 2.

[100] *Id.* at 5-6.

Table 15
Time Warner Cable Disconnect Categories by Reason Code
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Time Warner Cable Oct. 16, 2015, Updated Response to Information Request at 34-35.

80. For Time Warner Cable, the mapping of the billing system reason codes to the **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** is complex, and **[BEGIN HIGHLY CONF. INFO.]**
[END HIGHLY CONF. INFO.].[101] While we disagree with the assignment of how certain reason codes that Time Warner Cable mapped into the enumerated main-level category of "voluntary" disconnections, **[BEGIN HIGHLY CONF. INFO.]**
[END HIGHLY CONF. INFO.].

[101] Time Warner Cable Updated Response to Information Request, transmitted by letter from Matthew A. Brill, Counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149 at 2-3 (filed Feb. 12, 2016).

Table 16
Bright House Disconnect Categories by Reason Code
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Advance/Newhouse Response to Information Request, at Report 60d-Disconnect Description for C.2.

81. The Applicants claim that they experience significant broadband churn, and therefore have no incentive to harm OVDs."[102] The Applicants' use of monthly churn rates to determine that New Charter would not have an incentive to disadvantage OVDs is misleading in at least two respects. First, as shown in Figure 11, Figure 12, and Figure 13, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.] of the Applicants' monthly churn among Internet subscribers is due to reasons (e.g., non-payment, movers) that typically are unrelated to customer satisfaction. In particular, this portion of churn is unlikely to increase if New Charter were to foreclose OVDs. It is more instructive to look instead at so-called "voluntary churn"—also depicted in in these figures—which specifically excludes churn due to moving and non-payment.

82. Figure 11, Figure 12, and Figure 13 below report raw broadband monthly churn rates, among residential subscribers, for each Applicant in its footprint for calendar year 2014. Broadband churn rates in any given month are calculated by dividing the total number of disconnects by reason category (Mover, Voluntary, Non-Payment, and All Other) by the number of subscribers at the end of the previous month. The calculations for Charter show that the unweighted average of total monthly churn rates during 2014 among residential broadband subscribers is **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent, as compared to the average monthly churn rate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent[103] rate that Charter reported in its filing. The average voluntary churn rate, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].[104] Similar results are found for Time Warner Cable and Bright House. For Time Warner Cable average total churn is approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent and average voluntary churn is approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.[105] For Bright House average total churn is approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent and average voluntary churn is approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent.[106]

[102] *See* Scott Morton Decl. at para. 55.

[103] *Id.* at para. 3.

[104] Average monthly voluntary churn derived from Charter Jan. 21, 2016, Updated Response to Information Request, Attachment C.2.

[105] Average monthly voluntary churn derived from Time Warner Cable Dec. 23, 2015, Updated Response to Information Request, Attachment C.2.

[106] Average monthly voluntary churn derived from Advance/Newhouse Response to Information Request, Attachment C.2.

Figure 11
2014 Charter Monthly Broadband Churn Rates by Reason Category
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: Includes only residential subscribers. Churn is calculated as total disconnects by reason category in current month over the total number of subscribers at the end of the previous month.
Source: Charter Oct. 27, 2016, Updated Response to Information Request, Attachment C.1; Charter Jan. 21, 2016, Updated Response to Information Request, Attachment C.2.

Figure 12
2014 Monthly Time Warner Cable Broadband Churn Rates by Reason Category
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: Includes only residential subscribers. Churn is calculated as total disconnects by reason category in current month over the total number of subscribers at the end of the previous month.
Source: Time Warner Cable Jan. 19, 2016, Updated Response to Information Request, Attachment C.1.; Time Warner Cable Dec. 23, 2015, Updated Response to Information Request, Attachment C.2.

Figure 13
2014 Bright House Monthly Broadband Churn Rates by Reason Category
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: Includes only residential subscribers. Churn is calculated as total disconnects by reason category in current month over the total number of subscribers at the end of the previous month.
Source: Advance/Newhouse Response to Information Request Attachment C.1, C.2.

b. Broadband Areas with a FTTP or FTTN Competitor

83. To analyze whether churn rates vary in areas where the Applicants face competition we further disaggregated churn rates by category into two competitive broadband areas, majority Verizon FiOS and AT&T U-verse areas. This analysis uses December 2014 Form 477 Deployment Data to identify census blocks where FTTH provided by Verizon and 10 Mbps down/768 kbps up provided by AT&T are available.[107] Census blocks were assigned to zip codes via a crosswalk.[108] Next, we calculate the share of homes in an Applicant's zip codes where FiOS or U-verse is available. "High" FiOS zip codes are defined as zip codes in which more than half of the housing units in the Applicant's footprint are also within Verizon's FiOS footprint. "High U-verse" zip codes are defined analogously for AT&T's U-verse footprint.[109] Table 17, Table 18, and Table 19 below report churn by reason category for the relevant Applicant's footprint and for High FiOS and U-verse areas.

84. The churn rates in the tables below have been calculated for all products, all Internet products, broadband-only plans, MVPD and broadband plans, and triple play plans. For High FiOS areas, for both product categories and for all plans, the difference between churn over Charter's and Time

[107] For purposes of evaluating this transaction, we have defined U-verse as Asymmetric DSL providing at least 10/768 speeds. *See supra* note 14. However, AT&T is now also providing high-speed broadband via FTTH. *See* AT&T, *U-verse with AT&T Gigapower: Blazing-fast Internet Speeds with an Enhanced TV Experience*, https://www.att.com/shop/u-verse/gigapower.html (last visited _Mar. 17, 2016). We define U-verse as any AT&T broadband with at least 10 Mbps down/768 kbps up.

[108] *See* Census Bureau, Zip Code Tabulation File.

[109] Calculations for Table 17, Table 18, and Table 19 are made for residential subscribers only. Unweighted (raw) means are calculated for areas in which the Applicant faces FiOS or U-verse across a majority of its footprint. Churn rates in any given month are calculated by dividing the total number of disconnects by reason category and/or product type by the total number of subscribers at the end of the previous month.

Warner Cable's footprints and High FiOS areas is **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.] for voluntary churn than overall churn for all product and plan categories.

Table 17
Charter 2014 Monthly Churn Rates by Competitive Footprint and Product/Plan Type
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Charter Oct. 27, 2016, Updated Response to Information Request, Attachment C.1; Charter Jan. 21, 2016, Updated Response to Information Request, Attachment C.2., December 2014 Form 477 Deployment Data.

Table 18
Time Warner Cable Monthly Churn Rates by Competitive Footprint and Product/Plan Type
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Time Warner Cable Jan. 19, 2016, Updated Response to Information Request, Attachment C.1.; Time Warner Cable Dec. 23, 2015, Updated Response to Information Request, Attachment C.2, December 2014 Form 477 Deployment Data.

Table 19
Bright House 2014 Monthly Churn Rates by Competitive Footprint and Product/Plan Type
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Advance/Newhouse Response to Information Request Attachment C.1, C.2., December 2014 Form 477 Deployment Data.

c. Regression Analysis

85. The competitive footprint analysis above does not consider demographic and market-specific conditions beyond the "high FiOS" and "high U-verse" categories that were defined above.[110] To control for a richer set of factors, including demographics, we employ a regression analysis. In this analysis, for each Applicant, we regress each of three dependent variables—overall monthly churn rate, voluntary monthly churn rate, and non-payment monthly churn rate—[111] against various competition and

[110] *See supra* para. 83. Demographic controls include natural logarithm of population density, natural logarithm of median household income, and median age. *See* Summary File 1. *2010 Census Summary File 1 United States*, prepared by the U.S. Census Bureau (2011)

[111] The monthly churn rates are derived from Attachments C.1 and C.2. See Advance/Newhouse Response to Information Request Attachment C.1, C.2; Charter Oct. 27, 2016, Updated Response to Information Request, Attachment C.1; Charter Jan. 21, 2016, Updated Response to Information Request, Attachment C.2; Time Warner

demographic variables at the ZIP code and month level.[112] The hypothesis is that, while a provider's overall (and especially voluntary) monthly churn rates should rise as the level of competition that a provider faces in a ZIP code increases, non-payment churn should not be affected by the level of competition in a systematic way.[113] The specifications and estimation results are shown in Table 20 through Table 22.

86. Among the competition variables included on the right-hand sides of these regressions are so-called "linear splines" of the shares of each of the Applicants' footprints (within each ZIP code) that overlap with FTTH or FTTN—Verizon FiOS and AT&T U-verse. Each of the linear spline variables is a component of an additive decomposition of the associated share variable: either the share of residences in the Applicant's footprint (within the ZIP code) that are also in the FiOS footprint or the share of residences in the Applicant's footprint (within the ZIP code) that are also in the U-verse footprint. For example, let s denote the share of an Applicant's footprint in the FiOS footprint, and define

$$s_1 \equiv \min\left\{s, \frac{1}{2}\right\},$$

$$s_2 \equiv \max\left\{s - \frac{1}{2}, 0\right\}.$$

87. Note that $s = s_1 + s_2$. Including the variables s_1 and s_2, rather than s, on the right-hand side of a regression allows us to test for a relationship between s and the relevant dependent variable that is well approximated by a piecewise linear function of s that has a kink at the threshold value of $1/2$. This approach is more flexible than that of simply including s as a regressor.

88. The regression results are shown below.

Cable Jan. 19, 2016, Updated Response to Information Request, Attachment C.1.; Time Warner Cable Dec. 23, 2015, Updated Response to Information Request, Attachment C.2.

[112] Summary File 1. *2010 Census Summary File 1 United States*, prepared by the U.S. Census Bureau (2011), "Block Level Estimates" (GeoLytics, Inc., East Brunswick, NJ, 2014); December 2014 Form 477 Deployment Data.

[113] In principle, one might also expect that mover churn rates should not be affected by the level of competition, but we adopt this more conservative hypothesis to account for the possibility that some customers that voluntarily disconnect so that they can switch to competing providers (falsely) claim that they are moving (for example, to avoid hassles with disconnection). Non-payment churn, on the other hand, is initiated by the provider and should not be affected by this type of manipulation.

Table 20
Regressions of Charter's Monthly Residential Broadband Churn Rates against Various Competition and Demographic Variables
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: All observations are at the ZIP-code-and-month level. Robust standard errors, clustered at the headend level, are reported in parentheses. Levels of significance: *** p<0.01, ** p<0.05, * p<0.1

Table 21
Regressions of Time Warner Cable's Monthly Residential Broadband Churn Rates against Various Competition and Demographic Variables

[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]

Note: All observations are at the ZIP-code-and-month level. Robust standard errors, clustered at the headend level, are reported in parentheses. . Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 22
Regressions of Bright House's Monthly Residential Broadband Churn Rates against Various Competition and Demographic Variables
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Note: All observations are at the ZIP-code-and-month level. Robust standard errors, clustered at the headend level, are reported in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

89. Table 20 and Table 22, the estimates of the first six coefficients—which are related to competition from Verizon FiOS and AT&T U-verse—provide empirical support to the hypothesis presented above. In particular, Charter's overall churn rate among residential broadband subscribers tends to **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** with the level of competition that Charter faces from the two largest telco providers, and this effect is driven at least in part by an **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in Charter's voluntary churn rate among these subscribers. On the other hand, the level of competition from the telco providers generally has **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**, effect on Charter's non-payment category. The spline-variable estimates for Bright House Table 22 paint a similar picture; the main difference is that, whereas Charter's voluntary churn rates **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** to competition from both Verizon FiOS and AT&T U-verse, the latter does not appear to be much of a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** for Bright House. Interestingly, for Bright House, the simple dummy variable for the presence of Verizon FiOS is estimated to have a negative coefficient, which, combined with the spline estimates, suggests that a complex nonlinear relationship may exist.

90. For Time Warner Cable Table 21, support for the above hypothesis is more ambiguous. **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

91. It is also worth noting that, for all three providers, several of the other competition variables have statistically significant effects on the different forms of churn, sometimes in directions that contradict the general hypothesis that competition should increase a provider's overall churn through the channel of an increase in voluntary churn. Also, while there is, *a priori*, no reason to expect that non-payment churn should either increase or decrease with the level of competition, a number of the competition variables have statistically significant coefficient estimates (sometimes positive and sometimes negative) in the non-payment churn regressions. Furthermore, the estimates for the voluntary-churn regressions do not always comport with the theoretical effects that we have tested here. We interpret these findings as cautionary evidence that, though competition from other providers likely does have an effect on voluntary churn, one should be cautious in reading too far into these results, as there is likely a fair amount of unobserved population heterogeneity that also contributes to differences in churn behavior and is not independent of the level of competition.

92. Overall, we find that while voluntary churn rates are much lower than the overall churn rate for each Applicant and broadband product type and plan, voluntary churn is much higher in areas in which subscribers face a comparable competing broadband alternative. However, we recognize that a substantial majority of subscribers in each Applicant's footprint for speeds 25 Mbps or greater have only one broadband provider, the Applicant.[114]

2. Long-Run Churn versus Short-Run Churn

93. There are at least two reasons to be skeptical of the use of monthly churn rates in characterizing longer-term consumer switching patterns (e.g., over the course of a year). First, as will be seen shortly, churn patterns tend to be seasonal (e.g., due to more people choosing to move, or even being willing to try switching providers, during the summer months), so a single month's churn rate may not be representative of longer-term churn patterns. Second, it is likely that at least some portion of monthly churn is due to "serial" or "short-run" churn (e.g., from customers that have unsteady or uncertain income

[114] *See supra* Table 1.

streams and periodically sign up for service for short periods of time). Together, these factors raise concerns with the use of a monthly churn rate to project an annual churn rate (by simply multiplying the monthly churn rate by twelve, as Dr. Scott Morton does).[115] As a result, we are skeptical of the use of a projected annual churn rate as part of an argument that competition among broadband providers is robust.

94. The points above are illustrated in Figure 14, which compares the extrapolated annual churn rates for Charter residential broadband subscribers with the "actual" annual churn rates for those subscribers. Note that seasonality is evident in the figure, particularly in the series that depicts extrapolated total annual churn rates. The figure also shows that annual voluntary churn is a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** portion of annual total churn, a point that is also made in Figure 15, which shows that, of all of Charter's residential broadband subscribers at the end of 2014, **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent voluntarily disconnected their services with the company during the year. For purposes of comparison, similar patterns for Time Warner Cable residential broadband subscribers are shown in Figure 16 and Figure 17, which are analogous.[116]

Figure 14
Comparison of Churn Rates for Charter Residential Broadband Subscribers
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Charter Oct. 27, 2016, Updated Response to Information Request, Attachment C.1; Charter Jan. 21, 2016, Updated Response to Information Request, Attachment C.2, Attachment C.7.

[115] Scott Morton Decl. at para. 55.

[116] We were unable to conduct this exercise for Bright House **[BEGIN HIGHLY CONF. INFO] [END HIGHLY CONF. INFO]**. *See* Advance/Newhouse Response to Information Request, HIGHLY CONFIDENTIAL - REPORT EXPLANATIONS at 2).

Figure 15
Behavior of Charter Residential Broadband Subscribers during Calendar Year 2014
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Charter Oct. 27, 2016, Updated Response to Information Request, Attachment C.1; Charter Jan. 21, 2016, Updated Response to Information Request, Attachment C.7.

Figure 16
Comparison of Churn Rates for Time Warner Cable Residential Broadband Subscribers
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Time Warner Cable Jan. 19, 2016, Updated Response to Information Request, Attachment C.1.; Time Warner Cable Dec. 23, 2015, Updated Response to Information Request, Attachment C.2, Attachment C.7.

Figure 17
Behavior of Time Warner Cable Residential Broadband Subscribers
During Calendar Year 2014
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Time Warner Cable Jan. 19, 2016, Updated Response to Information Request, Attachment C.1; Time Warner Cable Dec. 23, 2015, Updated Response to Information Request, Attachment C.7.

95. The Applicants also argue that "Charter constantly needs to attract new customers to replace this churn just to stay even."[117] Based on this assertion, one might reasonably expect that, at least once in a while, the number of residential broadband subscribers shrinks from the previous time of measurement. To the contrary, Charter's Form 10-K filings indicate that residential broadband subscribership increased every year from 2012 through 2015: 3.8 million at the end of 2012,[118] 4.4 million at the end of 2013,[119] 4.8 million at the end of 2014,[120] and 5.2 million at the end of 2015.[121] Time Warner Cable's 10-K filings also show steady growth in that company's residential broadband subscribership: 10.9 million at the end of 2012,[122] 11.1 million at the end of 2013,[123] 11.7 million at the end of 2014,[124] and 12.7 million at the end of 2015.[125] **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.]

[117] Scott Morton Decl. at para. 55.

[118] Charter, Annual Report (Form 10-K) (Feb. 21, 2014).

[119] *Id*.

[120] Charter, Annual Report (Form 10-K) (Feb. 10, 2016).

[121] *Id*.

[122] Time Warner Cable, Annual Report (Form 10-K) (Feb. 15, 2013).

[123] Time Warner Cable, Annual Report (Form 10-K) (Feb. 18, 2014).

[124] Time Warner Cable, Annual Report (Form 10-K) (Feb. 13, 2015).

[125] Time Warner Cable, Annual Report (Form 10-K) (Feb. 12, 2016).

Figure 18
Charter Residential Broadband Subscriber Counts
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Charter Oct. 27, 2016, Updated Response to Information Request, Attachment C.1.

Figure 19
Time Warner Cable Residential Broadband Subscriber Counts
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Source: Time Warner Cable Jan. 19, 2016, Updated Response to Information Request, Attachment C.1.

96. Based on the above evidence, we conclude that the use of total monthly churn rates—without regard to underlying reasons for churn and without taking into account factors like serial churn and seasonality—likely exaggerates the robustness of competition for broadband services. Thus, any analysis of New Charter's incentive to harm edge providers, based on these churn rates, is likely to underestimate the strength of that incentive.

III. MVPD SERVICES

97. In this section, we analyze certain aspects of MVPD services in order to evaluate purported harms and benefits. First, we consider MVPD video subscriber shares. We find that post-transaction New Charter would have an approximate 17 percent subscriber share and would be ranked third nationally. We also look at New Charter's presence in the top 10 Designated Market Areas (DMAs)[126] and find that it would have a share of approximately 11 percent and be ranked fourth. Next we analyze the anonymized programming payment data submitted by Charter and conclude that generally for the included networks that Charter's programming payments per subscriber are higher than Time Warner Cable's.

98. Next, we consider whether New Charter would have an increased incentive or ability to withhold key RSNs from rival MVPDs for anticompetitive reasons. This analysis focuses on the SportsNet/Deportes and SportsNet LA RSNs in the Zone 1 distribution area.[127] First using the Nash bargaining framework from Comcast-NBCU, we calculate the critical and expected departure rates if this RSN programming is withheld.[128] We find that the results are sensitive to underlying assumptions on third party video margins, and that these results indicate that there is no transaction-specific change in the foreclosure incentive. However, we are somewhat skeptical of these results because Time Warner Cable currently licenses SportsNet/Deportes and has made attempts to license SportsNet LA. In order to address this concern we analyze the LA Dodgers (SportsNet LA) 2014 and 2015 baseball seasons as a natural experiment of how many rival MVPD subscribers switched to Time Warner Cable.

99. In order to analyze this natural experiment, we used a difference and difference approach to derive an estimate of the percent increase of Time Warner Cable subscribership during this time period.[129] We used this estimated increase to derive estimated departure rates and fed these estimated departure rates back into the Nash equilibrium model. The difference between these estimated departure rates and the critical departure rates indicate that there is not an increased incentive to foreclose these RSNs from rival MVPDs. Finally, using the estimated departure rates, we estimate changes in the affiliate fee for these RSNs post-transaction by DMA. This analysis indicates that there is an increased incentive for New Charter to raise prices, but the extent of this price increase is not clear because prices are set the same throughout the Zone 1 distribution area.

100. Next, we present an analysis of whether the proposed transaction creates an incentive for Discovery to withhold its programming from certain MVPDs for anticompetitive reasons. The analysis relies on a Nash bargaining approach to determine the likely result of the transaction on foreclosure incentives involving Discovery programming. We present two different approaches to analyze whether Discovery would have an incentive to foreclose programming from rival MVPDs. We first present a model similar to that adopted by the Salop Reply Decl., where John Malone and Advance/Newhouse (the Stakeholders) jointly bargain with an MVPD on behalf of Discovery while leveraging their joint equity interests in New Charter and Discovery to determine their expected profits from licensing versus foreclosure. This approach implicitly assumes that the Stakeholders would disregard their fiduciary

[126] *See supra* note 31. For purposes of analyzing the competitive effects of the transaction, a DMA is not considered to be the relevant geographic area; however we use DMAs as the geographic area for this analysis for analytic convenience.

[127] Zone 1 is the subscription zone closest geographically to the sports teams, where foreclosure of the RSN programming from a rival MVPD would be most profitable. We will discuss the markets that are included in this distribution area, as well as why it was chosen for this analysis, in the RSN section below.

[128] These terms, and the details of the theoretical model, are presented and explained in the RSN and Discovery analyses sections below.

[129] This methodology calculates the effect of an event or policy on an outcome by comparing the average change over time in the outcome variable for the "treatment" group, compared to the average change over time for the "control" group. We will discuss our use of this methodology in detail in the RSN section.

duties to Discovery shareholders and force a foreclosure of programming if they find it to be in their joint best interest.

101. The second model proposes an alternative bargaining framework where Discovery bargains with an MVPD but is influenced by the Stakeholders based on whether they themselves would prefer to license or foreclose. This modeling approach therefore stems from the assumption that the equilibrium outcome is incentive compatible for Discovery, its shareholders, and the Stakeholders. For both models, the results of our analysis suggest that foreclosure is an unprofitable strategy, and is not likely to occur. We further find that the transaction should not have a significant effect on the affiliate fees charged for Discovery programming.

A. MVPD Video Subscriber Shares

102. Commenters argue that the transaction would increase the concentration of the MVPD industry at the local, regional, and national levels.[130] Commenters argue that larger MVPDs have more bargaining power with respect to the programmers, and that New Charter's bargaining position would increase as a result of the transaction.[131] In order to evaluate these claims, we first calculate MVPD video subscriber shares at the national level, in the top 10 DMAs,[132] and in the DMAs in which Charter, Time Warner Cable, and Bright House have the greatest degree of overlap. Table 23 below provides estimates of the Applicants' individual MVPD video subscriber shares pre-transaction and an estimate of the combined video subscriber share of New Charter nationwide and for the Top 10 DMAs.[133] Table 23 shows that, as a result of the transaction, New Charter would have an estimated video subscriber share of approximately 17 percent nationwide and approximately 11 percent in the top 10 DMAs.

Table 23
Estimated Counts and Shares of MVPD Video Subscribers

	Pre-Transaction			Post-Transaction
	Charter	**Time Warner Cable**	**Bright House**	**New Charter**
All DMAs	4,119,978	10,773,945	1,971,377	16,865,300
	4.25%	*11.11%*	*2.03%*	*17.39%*
Top 10 DMAs	707,039	2,684,129	0	3,391,168
	2.37%	*9.01%*	*0.00%*	*11.38%*

Source: SNL Kagan, 2Q2015.

103. Table 24 below provides a breakout of an estimate of the individual Applicants' pre-transaction MVPD video subscriber shares for each of the top 10 DMAs, as well as the estimated post-transaction New Charter video subscriber share. Among these DMAs, there are five—New York, NY, Los Angeles, CA Dallas-Fort Worth, TX, Boston, MA, and Houston, TX—in which two or more of the Applicants currently operate. Among these five DMAs with overlaps, there are two—Los Angeles, CA and Dallas-Fort Worth, TX—in which New Charter's estimated post-transaction MVPD video subscriber share would exceed its national post-transaction MVPD video subscriber share.

[130] *See, e.g.*, Public Knowledge et al. Petition at 10-11; Petition to Deny of COMPTEL (currently known as INCOMPAS), MB Docket No. 15-149, at 5-7 (filed Oct. 13, 2015) (COMPTEL Petition); DISH Petition at 3.

[131] *See, e.g.*, COMPTEL Petition at 6; DISH Petition at 25-26; Public Knowledge et al. Petition at 9-10.

[132] SNL Kagan uses a Multichannel Market Designated Market Area (DMA**)** to provide estimates of subscriber counts. *See* SNL Kagan.

[133] The top 10 DMAs reflect an estimated 30 percent of U.S. households. *See* SNL Kagan, 2Q2015.

Table 24
Estimated Counts and Shares of MVPD Video Subscribers
In Top 10 DMAs

		Pre-Transaction		Post-Transaction
DMA	**Charter**	**Time Warner Cable**	**Bright House**	**New Charter**
Los Angeles, CA	248,189	1,286,621	0	1,534,810
	5.59%	*28.99%*	*0.00%*	*34.59%*
Dallas-Ft. Worth, TX	104,908	309,435	0	414,343
	5.09%	*15.01%*	*0.00%*	*20.10%*
New York, NY	26,138	1,072,342	0	1,098,480
	0.37%	*15.35%*	*0.00%*	*15.73%*
Boston, MA (Manchester, NH)	128,096	12,830	0	140,926
	5.40%	*0.54%*	*0.00%*	*5.94%*
Houston, TX	4,124	2,901	0	7,025
	0.22%	*0.16%*	*0.00%*	*0.38%*
Atlanta, GA	182,397	0	0	182,397
	9.26%	*0.00%*	*0.00%*	*9.26%*
San Francisco-Oakland-San Jose, CA	9,392	0	0	9,392
	0.42%	*0.00%*	*0.00%*	*0.42%*
Chicago, IL	3,795	0	0	3,795
	0.13%	*0.00%*	*0.00%*	*0.13%*
Philadelphia, PA	0	0	0	0
	0.00%	*0.00%*	*0.00%*	*0.00%*
Washington, DC (Hagerstown, MD)	0	0	0	0
	0.00%	*0.00%*	*0.00%*	*0.00%*
All Top 10 DMAs	*707,039*	*2,684,129*	*0*	*3,391,168*
	2.37%	*9.01%*	*0.00%*	*11.38%*

Source: SNL Kagan, 2Q2015

104. In total, there are 41 DMAs in which two or more of the three Applicants currently operate. Among these 41 DMAs, there are 10 in which the estimated MVPD video subscriber share gain, defined as the difference between New Charter's MVPD video subscriber share and the maximum of the pre-transaction MVPD video subscriber shares among the three Applicants, is greater than five percent. These 10 DMAs are shown in Table 25.

Table 25
Summary of DMAs
With Greatest Estimated Video Subscriber Share Gains

	Pre-Transaction			Post-Transaction	Gain
DMA	Charter	Time Warner Cable	Bright House	New Charter	
Green Bay-Appleton, WI	15.07%	29.04%	0.00%	44.12%	15.07%
Lincoln & Hastings-Kearney, NE	14.30%	28.56%	0.00%	42.87%	14.30%
Montgomery-Selma, AL	33.26%	0.00%	9.82%	43.08%	9.82%
Milwaukee, WI	9.15%	41.04%	0.00%	50.19%	9.15%
Birmingham (Anniston and Tuscaloosa), AL	22.26%	0.00%	8.59%	30.85%	8.59%
Charlotte, NC	8.55%	38.68%	0.00%	47.23%	8.55%
Burlington, VT-Plattsburgh, NY	7.55%	9.94%	0.00%	17.49%	7.55%
Wilmington, NC	7.28%	45.82%	0.00%	53.10%	7.28%
Los Angeles, CA	5.59%	28.99%	0.00%	34.59%	5.59%
Dallas-Ft. Worth, TX	5.09%	15.01%	0.00%	20.10%	5.09%

Source: SNL Kagan, 2Q2015

105. Table 26 compares the individual Applicants' estimated video subscriber shares with the estimated video subscriber shares for the largest MVPDs for all DMAs and for the top 10 DMAs. Table 27 shows how this ranking would change as a result of the transaction. In particular, the transaction combines the fourth-, sixth-, and ninth-largest MVPDs across all DMAs, resulting in what would be the third-largest MVPD across all Multichannel Markets. For the top ten DMAs, New Charter would be the fourth-largest MVPD.

Table 26
Estimated Pre-Transaction Video Shares of MVPD Households

MVPD	All DMAs	Top 10 DMAs
AT&T (including DIRECTV)	25.98%	22.28%
Comcast	22.19%	29.56%
DISH	13.51%	9.46%
Time Warner Cable	11.11%	9.01%
Verizon	5.88%	14.53%
Charter	4.25%	2.37%
Cox	4.01%	1.10%
Cablevision	2.65%	8.50%
Bright House	2.03%	0.00%
Other	34.38%	25.48%

Source: SNL Kagan, 2Q2015t

Table 27
Estimated Post-Transaction Video Shares of MVPD Households

MVPD	All DMAs	Top 10 DMAs
AT&T (including DIRECTV)	25.98%	22.28%
Comcast	22.19%	29.56%
New Charter	17.39%	11.38%
DISH	13.51%	9.46%
Verizon	5.88%	14.53%
Cox	4.01%	1.10%
Cablevision	2.65%	8.50%
Other	8.40%	3.20%

Source: SNL Kagan, 2Q2015.

B. MVPD Programming Payments

106. As part of their response to the Commission's Information and Data Request, Charter provided a ratio of Charter's to Time Warner Cable's programming fee per subscriber and the ratio of the number of each firms' subscribers with access to the particular network.[134] The data were anonymized by selecting a random id for each network that both Charter and Time Warner Cable offer to their subscribers in their Extended Basic plans.[135] We analyze this anonymized programming payment data submitted by Charter and conclude that generally for the included networks that Charter's programming payments per subscriber are higher than Time Warner Cable's.

107. The data were submitted monthly, as requested in the template, from June 2012 through June 2015.[136] The figure and table below are derived from this anonymized data. Figure 20 and Figure 21 depict the ratio of the average programming fee per subscriber and the ratio of subscribers receiving the network, respectively for the June 2013 through June 2015 time period. Figure 22 depicts the weighted average ratio of the programming fee per subscriber for the June 2012 through June 2015 time period.

Figure 20
Ratio of Charter to Time Warner Cable Programming Fee Per Subscriber
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[134] Charter Oct. 23, 2015, Updated Response to Information Request, Attachment _E_CHARTER_clean.xlsx (Attachment E). The anonymized data submitted reflects the request in the template and instructions to Attachment E--all networks that at least 90 percent of expanded video subscribers for both Charter and Time Warner are able to access. The Applicants submitted the data for 36 networks according to the template and instructions for Attachment E. *See also* Charter Oct. 23, 2015, Updated Response to Information Request at 38.

[135] Charter Oct. 23, 2015, Updated Response to Information Request, Attachment E.

[136] *Id.*

Figure 21
Ratio of Charter to Time Warner Cable Channel Access
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Figure 22
Ratio of Charter to Time Warner Cable Programming Weighted Average Fee Per Subscriber
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108. For both Figure 20 and Figure 22 there is a significant **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in the programming fee ratio beginning in **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** and this is sustained through **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. We suspect that this **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** is due to either a significant **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in Charter's programming fee for certain networks or a significant **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in Time Warner Cable's programming fee for certain networks but we are unable to identify which of these two scenarios dominates. We then look at the average and weighted average for each of the 36 networks and compare the difference, by network, for the two time periods— **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**. We find that there are two networks with a significant **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** for this time period looking at both the average and the weighted average ratios.[137] Table 28 below provides the average and weighted average ratios by network and also provides the percent difference of the ratios between the two time periods.

[137] One ratio **[BEGIN HIGHLY CONF. INFO] [END HIGHLY CONF. INFO]** percent and another more than **[BEGIN HIGHLY CONF. INFO] [END HIGHLY CONF. INFO]** percent for both the average and the weighted average ratios. Derived from Charter Oct. 23, 2015, Updated Response to Information Request, Attachment E.

Table 28
Programming Payments: Average and Weighted Average Analysis
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			% Difference between June 2013-Dec. 2013 and Jan. 2014 and June 2015	
Network ID	**Average**	**Weighted Average**	**Average**	**Weighted Average**

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C. Programming Foreclosure

1. RSNs

a. Introduction

109. Below is an analysis of whether New Charter would have an increased incentive or ability to withhold key RSNs[138] from rival MVPDs for anticompetitive reasons. The Commission has long recognized that video subscribers view certain types of programming as so important that they are willing to switch to a different provider in order to gain or retain access to that programming.[139] In particular, the Commission has recognized that such programming includes RSN programming[140] and that sports programming is distinct because it is the least time shifted and quickly loses value after the results of live sporting events are known.[141] Consistent with this view, past analyses of RSN withholding both by the Commission and by outside academic economists have found that foreclosing popular sports content results in significant subscriber losses.[142]

110. In this section, we discuss the likelihood of anticompetitive harm from a programming foreclosure of SportsNet, Deportes, and SportsNet LA—Time Warner Cable's largest RSNs. We find that it is unlikely that New Charter would have an increased incentive to foreclose these RSNs from rival MVPDs post-transaction. The analysis also suggests that it is possible that New Charter could raise the per subscriber affiliate fee, but it is unclear to what extent the affiliate fee would increase.

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[138] The Commission's most recent discussion of an RSN defines it as "any non-broadcast video programming service that (1) provides live or same-day distribution within a limited geographic region of sporting events of a sports team that is a member of Major League Baseball, the National Basketball Association, the National Football League, the National Hockey League, NASCAR, NCAA Division I Football, NCAA Division I Basketball Liga de Béisbol Profesional de Puerto Rico, Baloncesto Superior Nacional de Puerto Rico, Liga Mayor de Fútbol Nacional de Puerto Rico, and the Puerto Rico Islanders of the United Soccer League's First Division, and (2) in any year, carries a minimum of either 100 hours of programming that meets the criteria set forth in subheading 1, or 10% of the regular season games of at least one sports team that meets the criteria of subheading 1. *Revision of the Commission's Program Access Rules*, Report and Order, MB Docket Nos. 12-68, 07-18, 05-192, Further Notice of Proposed Rulemaking, MB Docket No. 12-68, Order on Reconsideration in MB Docket No. 07-29, 27 FCC Rcd 12605, 12643-12644, para. 56 (2012).

[139] News Corp. and DIRECTV Group, Inc. and Liberty Media Corp. for Authority to Transfer Control, Memorandum Opinion and Order, 23 FCC Rcd 3265, 3282, para. 35 (2008) (Liberty Media-DIRECTV Order); *Applications for Consent to the Assignment and/or Transfer of Control of Licenses Adelphia Communications Corporation (and Subsidiaries, Debtors-In-Possession), Assignors, to Time Warner Cable Inc. (Subsidiaries), Assignees, Adelphia Communications Corporation, (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corporation (Subsidiaries), Assignees and Transferees*, Memorandum Opinion and Order, 21 FCC Rcd 8203,8236-37, para. 66 (2006) (*Adelphia-TWC Order*); *General Motors Corp. and Hughes Electronics Corp., Transferors, and the News Corporation, Transferee*, Memorandum Opinion and Order, 19 FCC Rcd 473, 504, para. 59 (2004) (*News Corp.-Hughes Order*); *see also Adelphia-TWC Order*, 21 FCC Rcd 8203, 8270-71, para. 46.

[140] *Applications of Comcast Corporation, General Electric Company, and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licensees*, Memorandum Opinion and Order, 26 FCC Rcd 4238, 4254, para. 36 (2011) (*Comcast-NBCU Order*).

[141] *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Fifteenth Report, 28 FCC Rcd 10496, 10667, para. 343 (2013); *see also Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3308, para. 93.

[142] *See News Corp.-Hughes Order* 19 FCC Rcd 473, 538-39, paras. 138-139, Appendix D, paras. 25-47; *Adelphia-TWC Order*, 21 FCC Rcd 8203, 8267, para. 138, Appendix D, paras. 12-27.

111. In 2011, Time Warner Cable signed an estimated $3 billion, twenty-year agreement with the Los Angeles Lakers (Lakers) to televise Lakers games on SportsNet and Deportes, (SportsNet/Deportes) and to distribute these networks to other providers in the Lakers' broadcast area.[143] Shortly thereafter, in January 2013, Time Warner Cable paid an estimated $8.35 billion for the Los Angeles Dodgers (Dodgers) programming rights.[144] This includes overseeing all sales and distribution of the new SportsNet LA RSN. Due to a failure to reach carriage agreements with other MVPDs, Time Warner Cable, Bright House, and Champion Broadband had been the sole distributors of SportsNet LA in the Zone 1 distribution area until June 2015, when a licensing agreement was reached with Charter Communications.[145]

112. SportsNet/Deportes and SportsNet LA are currently available in Central and Southern California, as well as Hawaii and Las Vegas and Reno, Nevada.[146] We focus our analysis on DMAs[147] in the "Zone 1" distribution area. Zone 1 is the subscription zone closest geographically to the sports teams, where foreclosure of the RSN programming from a rival MVPD would be most profitable because the rival's expected subscriber loss would be greatest. The DMAs that are considered Zone 1 for SportsNet/Deportes and SportsNet LA include Los Angeles, Palm Springs, Santa Barbara, and Bakersfield.[148]

113. Time Warner Cable additionally licenses OC Sports in Hawaii and Sports Channel Kansas City in four DMAs—Kansas City, Pittsburg, Topeka, and Wichita.[149] However there is no

[143] *See* Joseph Flint, *Time Warner Cable, Lakers Strike 20-Year TV Deal*, Los Angeles Times (Feb. 14, 2011) http://articles.latimes.com/2011/feb/14/sports/la-sp-0215-lakers-time-warner-20110215.

[144] *See* RSN Foreclosure Analysis White Paper at para. 33; Joseph Flint, *Standoff Over Dodgers Games Could be Defining Moment in Sports TV*, Los Angeles Times (Jul. 17, 2014) http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-dodgers-tv-standoff-20140718-story.html?track=rss#page=1.

[145] *See Charter to Launch Time Warner Cable SportsNet LA on June 9th*, SportsNetLA.com (June 4, 2015), http://www.sportsnetla.com/charter. Charter distributes SportsNet LA in the Los Angeles DMA, in the Santa Barbara-San Luis Obispo (Santa Barbara) DMA, and the Fresno DMA. *Id.* Bright House has distributed SportsNetLA, in Bakersfield, CA in February 2014, and other Bright House non-California markets in March and April 2014. *See* Bright House, Press Release, *Bright House Networks to Launch Time Warner Cable SportsNetLA* (Feb. 24, 2014), https://brighthouse.com/about/about-us/newsroom/2014/bright-house-networks-to-launch-time-warner-cable-sportsnet-la.html. In 2014, Champion Broadband went out of business and began operating as Giggle Fiber. RSN Foreclosure Analysis White Paper at para. 34 & n.25. Giggle Fiber does not offer its own facilities-based video product. *See* Giggle Fiber, https://gigglefiber.com/ (last visited Mar. 8, 2016)

[146] Time Warner Cable Response to Information Request at 38-39. SportsNet/Deportes is also available in Yuma, Arizona. *See id.* at 38.

[147] *See supra* note 132.

[148] As in past analyses of RSN withholding, we focus on the incentive to foreclose programming to competitors within each DMA where an RSN is available. *See, e.g.*, *News Corp.-Hughes Order*, 19 FCC Rcd at 505-06, para. 63-65. We believe this is the most suitable geographic market to define competition for regional sports programming.

[149] *See* Time Warner Cable Updated Response to Sept. 21, 2015, Information and Data Request, transmitted by letter from Matthew A. Brill, Counsel to Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 85g-01, (filed Oct. 22, 2015) (Time Warner Cable Oct. 22, 2015, Updated Response to Information Request). Time Warner Cable wholly owns other video programming channels that may meet the Commission's definition of RSNs. These programming channels include: Time Warner Cable Special Events, Time Warner Cable SportsChannel (Nebraska), Time Warner Sports Channel (Albany), Time Warner Cable SportsChannel (Buffalo), Time Warner SportsChannel (Syracuse), Time Warner Cable SportsChannel (Cincinnati/Dayton), Time Warner Cable Sports Channel (Cleveland/Akron), Time Warner SportsChannel (Columbus/Toledo), Canal de Tejas, Time Warner Cable SportsChannel (North-Dallas, El Paso; South-Austin, San Antonio, Corpus, RGV), and Time Warner Cable SportsChannel (Milwaukee, Green Bay). Time Warner Cable Response to Information Request at 30-32.

transaction-specific change in subscriber share in Hawaii,[150] and therefore no foreclosure concern for OC Sports resulting from this transaction. Similarly, there is no subscriber share change in three of the four Sports Channel KC DMAs.[151] There is a change in the Kansas City DMA; however Charter's two percent video subscriber share in this DMA suggests that the additional bargaining leverage that New Charter may gain would be minimal.[152] Time Warner Cable has an attributable interest in SportsNet NY; however the entity that owns SportsNet NY is a subsidiary of Comcast that Time Warner Cable contends is controlled by Comcast,[153] so we do not apply our foreclosure analysis to this RSN. We therefore focus our foreclosure analysis on SportsNet/Deportes and SportsNet LA.

114. We propose a Nash bargaining model where a vertically integrated New Charter bargains with rival MVPDs to determine whether to license RSN programming and how much to charge on a per-subscriber basis. We then calibrate the theoretical model using Applicant and third-party data, and determine whether a foreclosure strategy would be profitable for New Charter for SportsNet/Deportes and SportsNet LA. Further, we derive empirical estimates of subscriber departure for SportsNet LA using a natural experiment. Our results indicate that foreclosure of RSN programming would result in a net loss to New Charter, and that it would therefore not choose to withhold programming when contracts are renegotiated after the transaction. However, we find that New Charter would be in an improved bargaining position, and may be able to extract higher affiliate fees from rival MVPDs as a result of the transaction. This increase in bargaining leverage may affect the post-transaction price, but it is not sufficient to create a foreclosure concern with regard to rival MVPDs' ability to carry RSN programming.

115. The Applicants have also submitted an economic analysis of RSN foreclosure.[154] This submission first examines the possible foreclosure of SportsNet/Deportes in the Los Angeles DMA by comparing the expected revenue to New Charter from not renewing expiring licensing agreements, in hopes of gaining additional subscribers, to the expected revenue from continuing to license the RSN. The analysis concludes that subscribers would not leave a rival MVPD in order to receive Time Warner Cable SportsNet/Deportes at a sufficient rate to make foreclosure a profitable strategy for New Charter.[155] The RSN Foreclosure Analysis White Paper also examines the likely transaction-specific increase in the price of SportsNet LA under a hypothetical scenario where a licensing agreement is reached between New Charter and a number of rival MVPDs.[156] If such licensing agreements were to be reached, then the RSN

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[END HIGHLY CONF. INFO.], therefore we do not apply our foreclosure analysis to these programming channels. *See* Time Warner Cable Updated Oct. 22, 2016, Updated Response to Information Request, Exhibit 85g-01.

[150] SNL Kagan, 4Q2015.

[151] *Id.*

[152] *Id.* Time Warner Cable is the largest MVPD in the market with a 25.6 percent subscriber share. *See id.*

[153] Time Warner Cable Response to Information Request at 33; *see also* NBCUniversal, *NBC Sports Regional Networks*, http://www.nbcuniversal.com/business/nbc-sports-regional-networks (last visited Mar. 8, 2016); *Company Overview of Sterling Entertainment Enterprises*, Bloomberg, http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=41876493 (last visited Mar. 11, 2016). Time Warner Cable has a 26.83 percent interest in SportsNet NY. Time Warner Cable Response to Information Request at 33. Further, Time Warner Cable is entitled to **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**. *Id.* at 36. Time Warner Cable claims that it does not control the distribution rights in any RSN other than its wholly owned RSNs. *Id.* at 37.

[154] RSN Foreclosure Analysis White Paper at paras. 11-29, 32.

[155] *Id.* at para. 32.

[156] *Id.* at paras. 33-64.

Foreclosure Analysis White Paper estimates that the transaction would increase the negotiated affiliate fee by about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per subscriber per month.[157]

116. The remainder of this section is organized as follows: We first present the theoretical Nash bargaining model of RSN foreclosure. We then discuss the data and assumptions necessary to test the model, and present preliminary results of whether New Charter would have an incentive to withhold RSN programming from rivals. This is followed by an empirical analysis of subscriber departure from rival MVPDs resulting from the inability to reach a licensing agreement for SportsNet LA, and updated foreclosure model results derived from this analysis. Finally, we present estimates of transaction-specific affiliate fee changes that may be expected once contracts are renegotiated.

b. Permanent Foreclosure and Nash Bargaining for SportsNet/Deportes and SportsNet LA

117. We utilize a two-pronged approach to analyze the likely effect of the transaction on the distribution of Time Warner Cable's RSNs. First, we calculate the "critical departure rate". This is the rate at which subscribers would have to switch away from a rival MVPD in response to a loss of RSN programming to make foreclosure profitable to the vertically integrated firm (e.g., New Charter). We then analyze whether this critical departure rate is high enough to raise concerns given our expectations of actual departure rates for SportsNet/Deportes and SportsNet LA. Second, we utilize the Nash bargaining framework adopted in Comcast-NBCU to estimate the likely magnitude of any post-transaction price change for licensed RSNs.[158] The analysis is complicated by the fact that Time Warner Cable has not successfully negotiated the carriage of SportsNet LA with many MVPDs.[159] We are nonetheless able to shed light on potential price effects should additional carriage agreements be reached.

(i) Critical Departure Rates

118. To calculate the critical departure rate, we must compare the benefits of New Charter licensing an RSN to its opportunity cost of acquiring additional subscribers that choose to switch when the programming is unavailable to a competitor. New Charter's total gains from licensing to a competitor are as follows:

$$License\ Revenue = (A + F_r)N_r + (A + F_{-r})(N - N_r)$$

119. Where A and F_r are the per-subscriber advertising revenue and affiliate fee charged to the rival MVPD, respectively, while F_{-r} is the average affiliate fee charged to all other MVPDs. N is the total number of video subscribers across all MVPDs, while N_r is the number of video subscribers of the rival firm. New Charter's opportunity cost of licensing the RSN, or its total revenue when it forecloses programming to the rival, is the following:

$$Foreclosure\ Revenue = (A + F_{-r})(N - N_r) + d(A + F_{-r})N_r + d\alpha_{nc}(M_{nc} - F_{-r})N_r$$

120. The first term $(A + F_{-r})(N - N_r)$ is the revenues that New Charter would earn from other MVPDS that it has not foreclosed. Further, we assume bilateral bargaining between New Charter and a single rival. Consequently, if New Charter were to foreclose on a rival and a fraction d subscribers switch to other MVPDs, those MVPDs would still be carrying the RSN and paying an affiliate fee of F_{-r}. Therefore, the second term $(d(A + F_{-r})N_r)$ represents affiliate and advertising revenues not lost by New Charter because a certain percentage of subscribers switch to another provider due to the foreclosure.

[157] *Id.* at para. 61.

[158] *See Comcast-NBCU Order*, 26 FCC Rcd 4238, 4393, para. 39.

[159] These MVPDs include AT&T, Cox, DIRECTV, DISH, and Verizon. RSN Foreclosure Analysis White Paper at para. 34. *See also supra* para. 111 & note 145.

However, New Charter loses both advertising and affiliate fee revenues for those subscribers that stay with the foreclosed MVPD despite losing the RSN programming.

121. New Charter additionally gains revenue from the share of departing subscribers that switch to its own video service. This is represented by the final term $(d\alpha_{nc}(M_{nc} - F_{-r})N_r)$. M_{nc} is New Charter's monthly profit margin per video subscriber, while α_{nc} is the diversion rate.[160] That is, α is the share of departing subscribers that switch to New Charter.[161] The benefit of foreclosure is therefore the profit per subscriber that New Charter receives on the share of subscribers that it expects to capture from the foreclosed MVPD, multiplied by that MVPD's subscriber base.

122. The critical departure rate makes New Charter indifferent between foreclosing and continuing to license. To find it, we set the *Licensing Revenue* equal to the *Foreclosure Revenue* and solve for *d:*

$$d^* = \frac{A + F_r}{A + F_{-r} + \alpha_{nc}(M_{nc} - F_{-r})}$$

Where:

$$\alpha_{nc}(M_{nc} - F_{-r}) = \alpha_{twc}(M_{twc} - F_{-r}) + \alpha_c(M_c - F_{-r}) + \alpha_{bhn}(M_{bhn} - F_{-r})$$

This last term simply indicates that total post-transaction diversion to New Charter is the sum of diversion to each of the Applicants, and New Charter's per-subscriber revenue from foreclosure is based on the individual firms' video margins.[162]

(ii) Expected Departure Rates

123. The critical departure rate alone is not sufficient to determine the likelihood of competitive harm. It must be compared to estimates of actual departure rates from rival MVPDs in the event of a foreclosure. In this section, we present the methodology for estimating expected departure rates that was previously adopted in Comcast-NBCU.[163]

124. This methodology calculates the expected subscriber departure rate from an MVPD given a loss of RSN programming using information from existing affiliation agreements. The affiliate fees per subscriber that are ultimately realized for SportsNet/Deportes and SportsNet LA are a function of a bargaining process that takes into account expected revenues and costs to licensor and licensee. We are able to observe affiliate fees from existing licensing agreements between Time Warner Cable and rival firms, and using this information, we back out the departure rate that both parties expect to see if negotiations break down. In effect, this approach determines how large the departure rate would need to

[160] Here we assume that M_{nc} is a "gross margin". This is New Charter's profit margin excluding the affiliate fee it would itself pay for the distribution rights to the RSN programming.

[161] As in the *Comcast-NBCU Order*, we assume that the diversion rate is proportional to subscriber shares. *Comcast-NBCU Order*, 26 FCC Rcd 4238, 4385, Appendix B, para. 13. Therefore, the diversion rate from MVPD *i* in market *m* to new Charter is: $\alpha_m = S_m^{NC}/(1 - S_m^i)$ where *S* is the subscriber share. Subscriber share data for this analysis comes from SNL Kagan, 2Q2015.

[162] We find fault with RSN Foreclosure Analysis White Paper critical departure rate formula for New Charter. In the post-transaction equilibrium, New Charter would take a transaction-specific change in the affiliate fee (*see infra* para. 170) into account when determining its critical departure rate. That is, the correct F_r in the above critical departure formula is the post-transaction affiliate fee charged to a rival. The RSN Foreclosure Analysis White Paper assumes this fee does not change and uses the pre-transaction fee when calculating critical departure.

[163] *Comcast-NBCU Order*, 26 FCC Rcd 4238, 4394-96, Appendix B, paras. 41-46.

be in order to give Time Warner Cable the bargaining position necessary to obtain the currently observed affiliate fees.[164]

125. To determine the departure rate implied by a Nash bargaining equilibrium (NBE) between Time Warner Cable and a rival MVPD, we first calculate net gains from bargaining for both parties. For the rival MVPD it is the following:

$$Rival\ Profit = dM_r N_r - F_r N_r$$

Where M_r is the rival MVPD's monthly per-subscriber video profit margin (again excluding the affiliate fee charged for the RSN), while all other parameters are as previously defined. An MVPD will only contract for the RSN programming when the expected loss from subscribers departing ($dM_r N_r$) is greater than the total cost of affiliate fees paid to Time Warner Cable ($F_r N_r$).

126. Net licensing profit for Time Warner Cable is:

$$TWC\ Profit = (A + F_r)N_r - d(A + F_{-r})N_r - d\alpha_{twc}(M_{twc} - F_{-r})N_r$$

127. This is Time Warner Cable's bargaining revenue net of the foreclosure opportunity cost, as presented previously. We present a NBE where both parties have equal bargaining power and maximize the product of their joint surplus with respect to the affiliate fee:

$$\max_{F_r} \{(TWC\ Profit) \cdot (Rival\ Profit)\}$$

128. Taking the derivative of the above NBE condition, setting equal to zero, and solving for *d* results in the following expression for the expected departure rate:

$$d^{expected} = \frac{2F_r + A}{F_{-r} + A + M_r + \alpha_{twc}(M_{twc} - F_{-r})}$$

(iii) Empirical Analysis

129. We present an empirical analysis of the expected versus critical departure rates and discuss the likelihood of post-transaction foreclosure of RSN programming. We focus on potential foreclosure of AT&T, Verizon, and DIRECTV as separate entities, and additionally provide estimates for a potential joint foreclosure of AT&T and DIRECTV.

130. The formulas presented above for estimating the critical and expected departure rates are applicable when current affiliation agreements exist such that F_r and F_{-r} are known. While SportsNet/Deportes is currently licensed to all competitors except DISH,[165] MVPDs other than Charter and Bright House have thus far chosen not to enter into a carriage agreement for SportsNet LA.[166] In the analysis that follows, we nonetheless estimate whether foreclosure of SportsNet LA would be profitable if it were to be licensed to other competitors at the rates currently offered to Charter and Bright House.

(a) Assumptions and Data

131. We focus on foreclosure concerns in Zone 1 markets for SportsNet/Deportes and SportsNet LA. For both RSNs, Zone 1 distribution areas include the Los Angeles, Palm Springs, Santa

[164] We estimate implied departure rates given current affiliation agreements. *See* Time Warner Cable Oct 22, 2015, Updated Response to Information Request, Exhibit 85g-01. We therefore rely on pre-transaction conditions and parameterize the model accordingly.

[165] *See* Time Warner Cable Response to Information Request at 41. As such, we do not present estimates of a foreclosure of DISH.

[166] *See supra* para. 111 & note 145.

Barbara, and Bakersfield DMAs.[167] Of these DMAs, Time Warner Cable only operates in the Los Angeles and Palm Springs DMAs.[168] However, Charter provides service in the Los Angeles and Santa Barbara DMAs while Bright House provides service in the Bakersfield DMA[169] creating a potential post-transaction incentive to foreclose in each of these Zone 1 DMAs.

132. Information on RSN affiliate fees and advertising revenue was provided by Time Warner Cable.[170] Also, we rely on data provided by third parties in response to information and data requests issued by the Commission to obtain data on the average subscriber acquisition cost (SAC) and monthly video margins for Telco and DBS subscribers.[171] Further we verify the RSN Foreclosure Analysis White Paper calculation of monthly per-subscriber video margins for the Applicants[172] and utilize this estimate in our own calculations.

133. The RSN Foreclosure Analysis White Paper submission assumes a constant video margin across all MVPDs.[173] This assumption has serious implications for the results of a foreclosure analysis. Specifically, the Nash bargaining model is very sensitive to MVPD video margins, as can be seen from the formula for expected departure presented above.[174] Variation in these margins across MVPDs results in large differences in predicted departure rates coming from the NBE. According to the model, if the same affiliate fee is charged to all firms in the DMA then lower margin MVPDs must expect a higher subscriber departure rate relative to high margin competitors. If low margin firms expected the same departure rate then they would be able to negotiate lower affiliate fees, because their foregone revenue from a departing subscriber is lower (which improves their bargaining position). Given that we observe a constant affiliate fee across firms (as we will see in the table of model inputs below), the model predicts higher expected departure rates in the NBE for low margin relative to high margin firms.

134. In reality, however, we would not expect subscriber departure resulting from a programming foreclosure to vary substantially across MVPDs. Departure is ultimately a consumer decision based on their perceived value of the programming and of their MVPD service. As such, a foreclosure of programming may result in differences in departure if certain MVPDs are on average preferred to others. However, this consumer choice would have nothing to do with a firm's underlying profit margins, which generally do not reflect the retail price of MVPD service. Furthermore, we would not attribute variation in departure rates to differences in video margins. Due to this limitation of the

[167] *See* Time Warner Cable Response to Information Request at 38-40. For the Los Angeles DMA not all counties are Zone 1. There is one Zone 2 and one Zone 3 county in this DMA. *See* Time Warner Cable Response to Information Request at 38-40. For our foreclosure analysis we assume that all counties in the Los Angeles DMA are Zone 1, and given the data we are unable to exclude non-Zone 1 counties from the analysis.

[168] SNL Kagan, 4Q2015.

[169] *Id.*

[170] Time Warner Cable Oct. 22, 2015, Updated Response to Information Request, Exhibit 85g-01.

[171] AT&T Nov. 24, 2015, Updated Response to Information Request; Exhibit 13a; AT&T Updated Response to Information and Request, transmitted by letter from Maureen R. Jeffreys, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 10.1.1 (filed Dec. 23, 2015) (AT&T Dec. 23, 2015, Updated Response to Information Request); Verizon Response to Oct. 9, 2015, Information and Data Request, transmitted by letter from Meredith Singer, Counsel to Verizon Corporation, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-149, Exhibit 10a.1. (filed Dec.23, 2015) (Verizon Dec. 23, 2015, Updated Response to Information Request). For our foreclosure analysis we use the pre-SAC margin.

[172] RSN Foreclosure Analysis White Paper, Appendix A para. 6.

[173] *Id.*

[174] Specifically we are referring to M_r in the denominator. For a given affiliate fee, F_r, the lower the rival's video margin, the higher is the departure rate they expect from a programming foreclosure.

theoretical model, we present two sets of estimates: one where margins vary by MVPD, and a second where we assume a constant video margin across MVPDs as in RSN Foreclosure Analysis White Paper.

135. We calculate diversion rates separately for each Zone 1 DMA. In doing so we utilize the following facts and assumptions. First, as DISH does not currently license any Time Warner Cable RSNs, we assume that if SportsNet LA were to be licensed to rival Telco or DBS providers, then DISH would continue to hold out. Consequently foreclosed subscribers cannot switch to DISH to obtain their RSN programming. Second, Verizon and AT&T do not overlap in their provision of MVPD service. When calculating diversion from DIRECTV, we take into account the likelihood that a DIRECTV customer is in an AT&T footprint versus a Verizon footprint.[175]

136. Table 29 below presents estimates of the model inputs, including affiliate fees and advertising revenues, margins, and diversion rates.[176]

[175] We use a similar approach to RSN Foreclosure Analysis White Paper when calculating diversion, though we correct for certain methodological errors we believe are present in their calculations.

We find fault with the RSN Foreclosure Analysis White Paper approach for calculating diversion from DIRECTV to Time Warner Cable when assuming it is a separate entity, prior to its joining with AT&T. Here they simply assume that diversion is equal to Time Warner Cable's subscriber share divided by the sum of all Telco and cable shares. Essentially, their approach only nets out the shares of DIRECTV and DISH and does not distinguish between a Verizon or AT&T footprint. We believe the correct approach in this instance is to take the weighted average of DIRECTV diversion in the Verizon versus AT&T footprint, with weights equal to the expected share of DIRECTV subscribers in each area (which is simply AT&T's share of AT&T plus Verizon subscribers in a DMA). Thus we allow DIRECTV subscribers to divert to AT&T or Verizon depending on the likelihood that they are in either footprint. *See* RSN Foreclosure Analysis White Paper, Appendix A paras. 3-5.

The RSN Foreclosure Analysis White Paper later adjusts the expected departure rate by the share of DIRECTV (AT&T) subscribers that are expected to switch to AT&T (DIRECTV), but this is an inferior approach to simply calculating diversion correctly by taking into account the likelihood that a DIRECTV subscriber is in a Verizon DMA versus an AT&T DMA. When calculating a weighted diversion, there is no need to directly adjust the expected departure rate. As the two approaches lead to different results, we find that our approach is preferred. RSN Foreclosure Analysis White Paper paras. 26-27.

[176] Though we have calculated them, we do not present the Bakersfield DMA results in the analyses below. The Bakersfield DMA is analytically similar to the Santa Barbara DMA, with qualitatively similar results.

Table 29
Model Inputs

[BEGIN HIGHLY CONF. INFO.]

Revenues:			
Net Margins (Including RSN Affiliate Fee):			
Diversion Rates:			
Pre-Merger:	Los Angeles	Palm Springs	Santa Barbara
Post-Merger:	Los Angeles	Palm Springs	Santa Barbara

[END HIGHLY CONF. INFO.]

Source: Time Warner Cable Oct. 22, 2015, Updated Response to Information Request Exhibit 85g-01; Verizon Response Dec. 23, 2105, Ex-10a.1; DIRECTV Response Nov. 24, 2015, Exhibit 13a; AT&T Response Dec. 23, 2015, Exhibit 10.1.1; SNL Kagan, 2Q2015.

(b) Results

137. Based on our foreclosure model, and utilizing the parameters from Table 29, we calculate pre- and post-transaction critical departure rates in the tables below:

Table 30
Critical Departure with Actual Margins

[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara
Pre-Merger:						
Post-Merger:						
Change:						

[END HIGHLY CONF. INFO.]

Table 31
Critical Departure with Constant (Salop) Margins
[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara
Pre-Merger:						
Post-Merger:						
Change:						

[END HIGHLY CONF. INFO.]

138. The transaction-specific change in critical departure rates stems from an increased diversion to New Charter relative to the pre-transaction diversion to Time Warner Cable. As New Charter's subscriber share increases, it captures a larger percentage of departing subscribers. The net effect of the transaction is to reduce the critical departure rate necessary for foreclosure by about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percentage points in the Los Angeles DMA and by about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percentage points in the Palm Springs, DMA. In the Santa Barbara DMA, the pre-transaction critical departure rate is 100 percent because Time Warner Cable does not operate in this DMA. It therefore would never find it profitable to foreclose unless it expected every subscriber to switch from a foreclosed MVPD to a rival that carried the programming. However, Charter has a significant presence in the Santa Barbara DMA,[177] which results in a post-transaction possibility of foreclosure on rivals that operate there.[178]

139. Note that rivals' video subscriber margins do not affect the pre-transaction critical departure rate, as the comparison of licensing revenues to opportunity costs does not depend on the rival's profitability. However, post-transaction critical departure is based on the expected post-transaction affiliate fee. As we will see in our analysis of price effects, the post-transaction equilibrium affiliate fee does depend on the rival firms' video margins. This is why the post-transaction critical departure rate varies between Table 30 and Table 31 above.

140. Next we calculate the expected departure rates for SportsNet/Deportes and SportsNet LA.[179]

[177] Charter's MVPD video subscriber share in the Santa Barbara DMA is 16.5 percent. SNL Kagan, 2Q2015.

[178] Neither AT&T nor Verizon operate in the Santa Barbara DMA, so the only foreclosure target is DIRECTV.

[179] For the simultaneous foreclosure of AT&T and DIRECTV, where we assume a single entity, we calculate a weighted average expected departure rate with weights equal to the subscriber shares of the MVPDs.

Table 32
Expected Departure with Actual Margins
[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara

[END HIGHLY CONF. INFO.]

Table 33
Expected Departure with Constant (Salop) Margins
[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara

[END HIGHLY CONF. INFO.]

141. We reiterate that these estimates do not represent empirically observed departure rates, but rather the rates that MVPDs expect to see should a foreclosure episode occur. The tables above highlight two important results: first is the magnitude of expected departure in the Santa Barbara DMA relative to the Los Angeles and Palm Springs DMAs, and second is the difference in expected departure when using third-party margin data as opposed to a constant margin across firms.

142. The Santa Barbara DMA is an interesting market to analyze because Time Warner Cable does not operate there; therefore rivals do not have a pre-transaction fear of programming foreclosure. In such a scenario, the Nash bargaining model indicates that a rival should be able to contract for a lower affiliate fee. However, multiple sources suggest that all Zone 1 distribution areas pay the same fee per subscriber.[180] For firms in the Santa Barbara DMA to accept the same affiliate fee as in the Los Angeles or Palm Springs, DMA, they must expect a much higher rate of departure from a loss of RSN programming. This explains why the predicted departure rate is about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** as high as in other Zone 1 DMAs.

143. There is a similar explanation for why Table 33, which uses a constant margin of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**[181] for all MVPDs, produces lower expected departure rates than Table 32. Lower margin MVPDs must expect a higher departure rate conditional on paying the same fee as their high margin counterparts. When we assume all margins are equal to those of the cable companies, the expected departure rates drop for Telco and DBS.

144. The above estimates provide a range of possible expected departure rates to use as a basis for comparison against the critical departure rates derived earlier. The relevant question for each rival

[180] *See* Fierce Cable (Mar. 23, 2016), http://www.fiercecable.com/story/twc-cuts-sportsnet-la-price-30-hopes-end-2-year-old-carriage-stalemate/2016-03-23 (reporting that a new discounted price for SportsNet LA is "available to all operators in the Southern California Region", and that according to SNL Kagan, "TWC was charging around $4.90 per subscriber for the RSN."). *See also* The Orange County Register (Mar. 22, 2016), http://www.ocregister.com/articles/dodgers-709295-cable-warner.html. *See also* RSN Foreclosure Analysis White Paper Appendix A para 6 (where the analysis references a single affiliate fee for TWC SportsNet)

[181] *See* RSN Foreclosure Analysis White Paper Appendix A para. 6.

firm is whether their expected departure rate is above the post-transaction critical departure rate for each RSN in each Zone 1 market. We present the difference between expected and critical departure in the tables below:

Table 34
Expected minus Critical Departure with Actual Margins
[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara

[END HIGHLY CONF. INFO.]

Table 35
Expected minus Critical Departure with Constant (Salop) Margins
[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara

[END HIGHLY CONF. INFO.]

145. The results largely depend on what we believe the actual departure rate to be. When using margin data from third parties, **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.] the model suggests that RSN foreclosure would be profitable in the Los Angeles and Palm Springs DMAs. When using a constant video margin as assumed in the RSN Foreclosure Analysis White Paper, foreclosure becomes unprofitable in all Zone 1 DMAs. Nevertheless, the difference between expected and critical departure is quite small for **[BEGIN HIGHLY CONF. INFO.]**

[END HIGHLY CONF. INFO.].

146. There is reason to be somewhat skeptical of the above results. For example, though we find a post-transaction foreclosure incentive when using third-party margin data, this same incentive exists pre-transaction (comparing expected departure to pre-transaction critical departure). That is, there is no transaction-specific change in foreclosure incentive. Consequently the model suggests that Time Warner Cable would be better off withholding SportsNet/Deportes and SportsNet LA even absent the proposed transaction. We know this to be incorrect, as Time Warner Cable currently licenses SportsNet/Deportes, and has made attempts to license SportsNet LA in the past.[182] Furthermore, we are not comfortable with simply ignoring the reality of firms' profitability by assuming a constant video margin. Both of these concerns are ultimately related to the way the bargaining model determines an expected departure rate.

147. As we are not fully satisfied with the Nash bargaining framework for determining an expected departure rate given a foreclosure of RSN programming, we endeavor to estimate this rate using data for SportsNet LA for the 2014-2015 baseball seasons. The non-carriage of this RSN by competitors

[182] *See supra* para. 111 & note 145; Time Warner Cable Response to Information Request at 41-42.

creates a natural experiment whereby we can determine the potential subscriber gain to Time Warner Cable from those customers that decided to switch from a rival MVPD to retain access to Dodgers games. The following section describes this analysis.

(iv) Empirical Analysis of SportsNet LA Actual Departure Rates

(a) Difference-in-Differences Analysis

148. The following analysis uses a "Difference-in-Differences" methodology to estimate the effect of SportsNet LA carriage on video and non-video subscriber outcomes in affected and non-affected California zip codes through the 2014 and 2015 baseball seasons. Carriage of Dodgers games through Time Warner Cable's SportsNet LA began February 25, 2014.[183] Charter announced it would begin carriage of SportsNet LA on a month-to-month basis at the same time it announced its transaction with Time Warner Cable in June 2015.[184] Prior to that, Time Warner Cable was the sole MVPD offering SportsNet LA within its video footprint.[185] We exploit this natural experiment to empirically estimate Time Warner Cable's video subscriber gains during this time period.

149. To measure the effect of SportsNet LA carriage on Time Warner Cable's video subscribership, we use a standard statistical estimation procedure known as Difference-in-Differences (DD).[186] In California, Time Warner Cable has cable systems both inside and outside of the SportsNet LA distribution footprint. The zip codes inside of the SportsNet LA distribution area will serve as our experimental "treatment group", while those outside of it will serve as our "control group".

150. The goal of our analysis is to compare the change in Time Warner Cable's video subscribership between the treatment and control groups during the study period. However, there may be pre-existing differences between treatment and control zip codes, or common shocks during the period of study, which may bias a simple comparison of these groups. The DD method controls for these potentially biasing factors by taking the difference between video subscribership in the treatment and control groups prior to and during treatment, and then differencing these two differences. This approach removes these potential sources of bias.

151. The key assumption that needs to be satisfied for our analysis to successfully estimate the effect of withholding is that in the absence of any licensing disputes, the average change in video subscribership would have been the same for both treatment and control groups.[187] This may not hold if, for example, Google Fiber deployed in the treatment zip codes but not in the control zip codes during the Dodgers withholding episode. If this were the case, our estimates would be biased towards finding no effect of RSN withholding since the treatment zip codes would have lower video subscribership than would be otherwise observed if Google Fiber had not deployed. To ensure our estimates are not spurious due to such a confounding event, we perform a number of robustness tests on our specification and find that our conclusions still hold.

152. Our analysis is based on Time Warner Cable monthly billing plan data from June 2012 to

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[183] *See* Time Warner Cable SportsNet, *SportsNet LA Announces Dodgers Programming* (Feb. 17, 2014), http://www.sportsnetla.com/content/snla/articles/2014/02/17/sportsnet-la-announces-dodgers-programming html.

[184] *See* RSN Foreclosure Analysis White Paper paras. 2, 35.

[185] *Id.* para. 34. Champion Broadband carried SportsNet LA from March 2014 until April 2015 in small parts of the Los Angeles DMA. *See* Time Warner Cable Response to Information Request at 41-42; RSN Foreclosure Analysis White Paper n.25; *see also supra* note 145.

[186] *See, e.g.*, Colin Cameron and Pravin Trivedi, Microeconometrics, Chapter 25.5 (Cambridge 2005); and Jeffrey M. Wooldridge, Econometric Analysis of Cross Sectional and Panel Data 129-30 (2002).

[187] This is sometimes called the "parallel trends" assumption, because it requires that the trend in the outcome variable for both treatment and control groups during the pre-treatment period be similar.

August 2015.[188] The data provide plan characteristics, average monthly recurring revenues, and the number of subscribers by tenure for each plan to which Time Warner Cable has at least one subscriber. We restrict the sample to all zip codes in the state of California in order to have the most comparable treatment and control groups and then separate the plans into video and non-video.[189] Our outcome variable of interest is the total number of subscribers to Time Warner Cable video products. We then classify the zip codes as either in the treatment or control group by using a list of zip codes in the SportsNet LA footprint provided by Time Warner Cable.[190]

153. To minimize the impact of confounding factors, we estimate a "fixed effects" DD model using a regression framework. In particular, we estimate the natural logarithm of Time Warner Cable video subscribers as a function of zip code fixed effects, year-month fixed effects, and an event indicator variable that is "turned on" during the 2014 and 2015 baseball seasons in SportsNet LA zip codes. The coefficient on this last indicator variable is the primary parameter of interest and provides the difference-in-differences estimate of the effect of RSN withholding on Time Warner Cable video subscribership. In addition, we include post-season and pre-season indicator variables that equal one during these time periods in SportsNet LA zip codes. The post-season indicator determines whether subscriber gains persist after the baseball season ends, and the pre-season indicator captures whether some subscribers begin switching to Time Warner Cable during spring training.

154. The results of this analysis are presented in Table 36 below.[191] The coefficient on the primary variable of interest, shown in the first row of column 1, indicates that Time Warner Cable increased video subscribership by about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in treatment versus control zip codes during the 2014-2015 baseball seasons. As a robustness check, we also estimate the effect of SportsNet LA withholding on Time Warner Cable's change in non-video subscribers. As expected, the results in column 2 indicate that we find no effect of SportsNet LA withholding on this group of customers. Columns 4 through 7 provide a more dynamic view of Time Warner Cable's video subscriber growth over the two baseball seasons. Columns 4 and 5

[188] Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment B.

[189] Time Warner Cable sells three products (video, broadband, and phone) and seven bundles of these three products. The four video products are: stand-alone video, video and broadband, video and phone and the triple play. The three non-video products are: standalone phone, standalone broadband and broadband and phone double play.

[190] Time Warner Cable Response to Information Request, Exhibit 85e.

[191] Observations are at the month-by-zip code level, and the data spans from June 2012 to August 2015. *See* Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment B. We control for subscriber responses to Time Warner Cable Maxx upgrades by including an indicator variable equal to 1 for each month that occurred after Maxx deployment in a zip code based on Applicant data. *See* Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment I. "SNLA zip code" is a dummy variable equal to one if the zip code is in the SportsNet LA territory.

Model dynamics, leads and lags: The specifications in Columns (1) through (3) do not provide a sense of the monthly dynamics of subscriber behavior in SportsNet LA zip codes, nor does it indicate whether the growth rate of video and triple-play subscribers in SportsNet LA zip codes accelerates over time, stabilizes or reverts to the mean. To explore these dynamics, Column (4) includes pre-season, primary season, and post-season indicator variables for the 2014 and 2015 baseball seasons. Pre-season is defined as January through March in the given year. Primary season is April through September for 2014 and April through August for 2015. Post-season is October through December for 2014; data limitations precludes a post-season indicator for 2015. Columns (5) and (6) include indicator variables equal to one in SportsNet LA zip codes for up to three months before April 2014 and each month after April 2014 in the data set.

Each model is weighted by the population in a zip code and includes zip code and month-by-year fixed effects. U.S. Census Bureau.

add pre- and post-season indicators, while columns 6 and 7 add monthly dynamics for video and non-video subscribers.

155. The monthly results in column 6 are interesting. We find that Time Warner Cable gained video subscribers in treatment zips quickly at the start of the 2014 baseball season, with a gain of about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent by June 2014, and then continued to add subscribers throughout the season. Furthermore, subscriber gains continued to accrue even during the 2015 pre-season, and continued on until well into the 2015 season. This provides evidence that the subscriber gains did not dissipate after the first year of the licensing dispute.

Table 36
Effect of Dodgers RSN Carriage on Time Warner Cable Subscriber Outcomes
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]
Cluster-robust standard errors at the headend level are presented in parentheses. *** p<0.01, ** p<0.05, * p<0.1

(b) Revisiting Foreclosure Analysis

156. We focus on the coefficient on the difference-in-differences estimator in the first specification of Table 36 above. It indicates that the average effect of SportsNet LA unavailability during

the study period was to increase Time Warner Cable subscribership by about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** in treatment versus control zip codes. In this section, we present a simple and intuitive methodology for transforming a subscriber gain to Time Warner Cable into a departure rate from rival MVPDs.

157. We first note that during the study period, if an MVPD subscriber wished to retain access to SportsNet LA, then their only option was to leave their provider and switch to Time Warner Cable. Therefore, the estimated effect of Time Warner Cable being unable to license SportsNet LA during this time period is similar to that of a foreclosure strategy that simultaneously withholds programming from all rivals in a market. Conversely, the departure rate we are most interested in is that which we would expect from a breakdown of bilateral bargaining, where Time Warner Cable withholds SportsNet LA from a single rival.

158. The distinction between a foreclosure strategy targeting all rivals versus one aimed at a particular MVPD is important when determining how best to estimate subscriber departure. We note two key differences between these scenarios. First, if there are no alternatives to Time Warner Cable (all rivals are foreclosed), then the total number of subscribers switching from any rival to Time Warner Cable is likely an over-estimate relative to a scenario where only a single rival is foreclosed. This is because some fraction of subscribers that switch to Time Warner Cable would otherwise have chosen a different MVPD, were such an alternative available. Second, if alternatives to Time Warner Cable do exist, then the total number of subscribers departing from a rival will likely be higher relative to a total foreclosure scenario. This is because there exists a group of subscribers that would switch to an alternative that is not Time Warner Cable, but would not switch to Time Warner Cable.

159. The goal is then to transform our difference-in-differences coefficient into a departure rate for each rival MVPD taking into account the differences between the relevant states of the world as outlined above. We present the methodology in steps as it applies to the Los Angeles DMA. First we determine the average video subscriber count for the DMA over the course of the study period.[192] We then multiply this number by **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** to determine the total gain in subscribers experienced by Time Warner Cable resulting from being the sole carrier of SportsNet LA. This number comes to about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** subscribers. Next, we apportion the total Time Warner Cable subscriber gains to the rival MVPDs according to their subscriber share in the DMA.[193] For example, Verizon holds an 11.4 percent subscriber share in the Los Angeles DMA.[194] Given that Time Warner Cable has a subscriber share of 29 percent,[195] Verizon's share of the remaining subscribers is equal to 16.1 percent.[196] Therefore, 16.1 percent of Time Warner Cable's total subscriber gains are expected to come from Verizon, or about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** subscribers.

160. Third, we now account for the potential differences in subscriber departure between a total foreclosure and a bilateral foreclosure scenario. To do so, we estimate both a lower and an upper bound on the total number of subscribers departing from a rival. For the upper bound estimate we assume that all subscribers that switch from a rival to Time Warner Cable during the study period, where no alternatives exist, would still switch to Time Warner Cable despite having alternative MVPD options.

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[192] Time Warner Cable Oct. 16, 2015, Updated Response to Information Request, Attachment C.1.

[193] SNL Kagan, 2Q2015.

[194] *Id.*

[195] *Id.*

[196] $0.114/(1-0.29) = 16.1$ percent

This is an upper bound on the overestimation issue discussed above.[197] Consequently, we would not adjust down our estimate of **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** subscribers for Verizon.

161. Next, to account for subscribers that would switch to another MVPD and not to Time Warner Cable if such options are available,[198] we expand the base of subscribers that switch to Time Warner Cable by the rival MVPD's diversion rate in the DMA. For example, if Verizon's diversion to Time Warner Cable is 45 percent, then its total subscriber departure to all MVPDs in a bilateral scenario is equal to **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** subscribers.[199] This indicates that the Verizon subscribers that chose to switch to Time Warner Cable **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** only represent 45 percent of total Verizon departure. In this way, we are making an intuitive use of expected diversion to determine total departure. The last step is to turn total departing subscribers from a count to a percentage, by dividing by Verizon's total subscriber base in the DMA.

162. Finally, we can similarly estimate a lower bound on departure, by simply assuming that the total number of subscribers switching to Time Warner Cable during the study period is also the total number that would switch to any MVPD in a bilateral bargaining scenario. So, for example, the **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** expected Verizon subscribers that switched to Time Warner Cable would now be the total number of subscribers departing from Verizon to all MVPDs. Of those, we would expect **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** subscribers to switch to Time Warner Cable, and the remainder to switch to other MVPDs.[200]

163. We employ the above methodology to estimate maximum and minimum expected departure rates, and present the results in Table 37 below:[201]

Table 37
Departure Rate from SportsNet LA Withholding
[BEGIN HIGHLY CONF. INFO.]

	Maximum	Minimum

[END HIGHLY CONF. INFO.]

164. The above results represent the bounds of our analysis. Our minimum expected departure rate does not vary across MVPDs because it is simply distributing total estimated departure across rivals according to subscriber share, with no additional expansion according to diversion rates. While the number of departing subscribers varies across rivals, the share as a percentage of firms' subscriber base is constant.

[197] *See supra* para. 158.

[198] *Id.*

[199] **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[200] **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]**.

[201] The results for the joint departure from AT&T and DIRECTV are derived by assuming a hypothetical foreclosure of both entities, with an estimate of total departure from both MVPDs as a fraction of their joint subscriber base. This is identical to a weighted average departure rate with weights equal to subscriber share in the DMA.

165. We are now ready to revisit our foreclosure model, using empirically estimated departure rates to determine whether New Charter would find it profitable to withhold RSN programming. For simplicity, we assume that the departure rates calculated for SportsNet LA above are also the rates we would expect to see from a foreclosure of SportsNet/Deportes, and that these rates are constant across our DMAs of study.[202] Furthermore, we focus on the upper bound expected departure rates as the salient estimates to determine whether foreclosure would occur under a more conservative scenario. In Table 38 below, we present the comparison of New Charter's critical departure rates to our empirically estimated upper bound departure rates.[203]

Table 38
Empirically Estimated Departure minus Critical Departure with Actual Margins
[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara

[END HIGHLY CONF. INFO.]

166. Using more reliable estimates of expected departure derived from an empirical analysis of SportsNet LA, we find that New Charter would not have an incentive to foreclose RSN programming to any competitors in any DMA.[204] Furthermore, as the results in Table 38 rely on our upper bound actual departure estimates, it is likely that the actual difference between expected and critical departure is even larger than what we have presented here.

(v) Programming Price Effects

167. Even when foreclosure is not a likely strategy, New Charter may use the threat of foreclosure to demand higher affiliate fees from its rivals when contracts come up for renegotiation. An increase in the post-transaction diversion of foreclosed customers to New Charter would increase its potential foreclosure profits and improve its bargaining position when negotiating fees. Further, higher affiliate fees to rivals would likely result in higher prices for MVPD service given an assumption of a nonzero pass-through from programming payments to consumers.

168. To determine the likely magnitude of any post-transaction price changes, we return to the Nash bargaining framework. Taking the derivative of the NBE condition defined above,[205] setting equal to zero, and solving for the pre-transaction affiliate fee charged to the rival results in the following:

$$F^{*}_{r,pre} = \frac{A(d-1) + d(M_r + F_{-r}) + d\alpha_{twc}(M_{twc} - F_{-r})}{2}$$

169. The post-transaction world differs in that there is now additional diversion to New Charter. Whereas before, Time Warner Cable only benefited from those subscribers that switched from a

[202] As the empirical analysis of departure rates relies on a natural experiment specifically involving SportsNet LA, we are unable to perform the same calculation for SportsNet/Deportes. However, we find it reasonable to assume that these departure rates would be the same, as both RSNs cover professional sports teams and also overlap geographically with regard to the relevant markets of study.

[203] Note that the critical departure rates used to derive the results in Table 38 are not identical to the ones presented in Table 30. This is because the new estimates of actual departure affect the NBE post-transaction affiliate fee, which in turn affects New Charter's net licensing profits and critical departure.

[204] We similarly find no foreclosure incentive for the Bakersfield DMA.

[205] *See supra* para. 127.

rival MVPD to its own video service, now New Charter benefits when subscribers switch to Charter and Bright House as well as Time Warner Cable. We solve for the post-transaction affiliate fee incorporating this additional diversion:

$$F^*_{r,post} = \frac{A(d-1) + d(M_r + F_{-r}) + d[\alpha_{twc}(M_{twc} - F_{-r}) + \alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r})]}{2}$$

170. As can be seen, the only transaction-specific effect on affiliate fees is through an increase in the diversion rate to New Charter. The change in the affiliate fee resulting from the transaction is :

$$\Delta F_r = F^*_{r,post} - F^*_{r,pre} = \frac{d[\alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r})]}{2}$$

171. We calculate expected post-transaction price changes in Table 39 below. The results are estimated using actual video margins derived from Applicant and third-party data[206] and actual departure rates derived from our difference-in-differences analysis.

Table 39
Change in Affiliate Fee with Empirically Estimated Departure and Actual Margins
[BEGIN HIGHLY CONF. INFO.]

	SportsNet LA			SportsNet/Deportes		
	Los Angeles	Palm Springs	Santa Barbara	Los Angeles	Palm Springs	Santa Barbara
Fee Increase (%)						

[END HIGHLY CONF. INFO.]

172. According to the model, New Charter's improved bargaining position would allow them to raise prices by about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** per subscriber per month for SportsNet/Deportes and SportsNet LA in the Los Angeles DMA. This corresponds to about a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent increase in affiliate fees compared to pre-transaction levels.[207] The expected price change is being driven by the additional diversion to Charter, which has a 5.6 percent subscriber share in the Los Angeles DMA.[208] In the Palm Springs DMA, New Charter's bargaining position is nearly unchanged, as

[206] *See supra* note 171.

[207] The price increase varies by market but is the same for both SportsNet/Deportes and SportsNet LA. This is because we are using a constant estimated departure rate across RSNs. The variation in price changes across markets is due to the changing diversion rate. In Comcast-NBCU, the Commission found that predicted price increases would range from **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent for the NBCU Cable Bundle and for NBCU Owned and Operated Broadcast Stations many of the predicted price increases were over **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent. *See Comcast-NBCU Order*, 26 FCC Rcd 4238, 4397-98, Appendix B, Table 3. Further in Comcast-NBCU, the Commission estimated changes in affiliate fees, adjusting for programming quality of approximately **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent following the News Corp-Hughes transaction. *See Comcast-NBCU Order*, 26 FCC Rcd 4238, 4398 Appendix B para. 52.

[208] SNL Kagan, 2Q2015.

Charter only has a two percent subscriber share and consequently does not increase post-transaction diversion by a significant amount.[209] This results in a modest increase in monthly per-subscriber affiliate fees of about **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** cents, or about a **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** percent increase over current rates.

173. The results for Santa Barbara are quite different. There is no effect on affiliate fees for either AT&T or Verizon, as they do not operate in the DMA. The expected increase in the affiliate fee to DIRECTV, as well as to the newly-combined AT&T / DIRECTV, is fairly large due to the fact that the transaction-specific change in diversion from DIRECTV to New Charter is very high.[210] Though this result may be of concern, sources suggest that current Time Warner Cable RSN licensing fees do not vary across Zone 1 distribution areas.[211] Therefore, the results above do not reflect our expectation of actual price changes in these DMAs. Rather they indicate the DMAs in which New Charter would have the greatest incentive to raise prices during new rounds of negotiations, given expectations of post-transaction departure and diversion. In effect, the reported change in affiliate fee for any single DMA is the Nash bargaining model's prediction of what would happen if that were the only DMA where New Charter and a rival MVPD were negotiating RSN programming rights. In reality these firms are likely to negotiate across all Zone 1 markets, presumably considering how different areas would be affected. Therefore, the model's prediction of whether to foreclose, as well as the decision of how much to charge, should not be taken as fact, but should be considered along with other evidence as to the likelihood of transaction-specific harms relating to issues of RSN foreclosure.

2. Discovery Communications

a. Introduction

174. We present an analysis of whether the proposed transaction creates an incentive for Discovery to withhold its programming from certain MVPDs for anticompetitive reasons. Due to overlapping ownership interests involving Discovery, Charter, and Bright House, several commenters argue that the proposed transaction may induce Discovery to withhold its programming or raise its price to MVPDs that compete with New Charter.[212] To address these concerns, we analyze the potential for foreclosure of Discovery to occur as a result of the transaction.

175. The analysis presented in this section relies on a Nash bargaining approach to determine the likely result of the transaction on foreclosure incentives involving Discovery programming. The results of our analysis suggest that foreclosure is an unprofitable strategy and is not likely to occur. We further find that the transaction should not have a significant effect on the affiliate fees charged for Discovery programming.

176. We lay out our analysis below. In the remainder of the introduction, we discuss the relevant vertical relationships between the parties of interest and why they may create a transaction-specific incentive for foreclosure of Discovery programming. We then discuss the intuition behind two separate modeling approaches that are employed to determine foreclosure incentives. These approaches reflect two different assumptions about the nature of bargaining as it relates to Discovery. The body of

[209] SNL Kagan, 2Q2015.

[210] We find similar price effects for the Bakersfield DMA, which also has a high transaction-specific change in diversion to New Charter. Time Warner Cable is not present in this DMA pre-transaction, but, because Bright House has a substantial subscriber share of 41 percent in this DMA, New Charter would inherit this subscriber share after the transaction. SNL Kagan, 2Q2015.

[211] *See supra* note 167.

[212] For a full discussion of the arguments raised by commenters, *see supra* Order, Section V.E.4.c.

the analysis presents a detailed theoretical model and results for each modeling approach, and draws conclusions about the likely effect of the transaction on foreclosure incentives.

(i) Background

177. The proposed transaction between Charter, Time Warner Cable, and Bright House would alter key ownership stakes in Discovery programming assets, which are vertically related to Bright House's distribution assets and cable executive John Malone's equity and voting interests. According to Applicant filings, John Malone and Advance/Newhouse, which operates Bright House, are significant shareholders in Discovery, having a combined 35.8 percent equity share.[213] Following the proposed transaction, Advance/Newhouse and John Malone would jointly own approximately 14.7 percent of New Charter.[214]

178. Whereas concerns over the foreclosure of Discovery programming are currently limited because John Malone and Advance/Newhouse do not have joint equity interests in the same MVPD and are therefore less likely to coordinate their actions with regard to licensing Discovery programming, the coming together of Charter and Bright House along with Time Warner Cable has the potential to create an added incentive for coordinated action leading to foreclosure. Specifically, John Malone and Advance/Newhouse joint equity interests, henceforth referred to as "the Stakeholders", may find it profitable to wield their joint influence over Discovery to withhold its programming content from MVPDs that compete with New Charter. We expand on this point in discussing our modeling approach below.

(ii) Modeling Approach and Estimation

179. Similar to our analysis of Time Warner Cable's RSNs, we investigate two channels of potential anticompetitive behavior related to the distribution of Discovery programming content after the transaction. The first is that the Stakeholders may have an increased incentive to foreclose Discovery programming to an MVPD that competes with New Charter. The second is that the Stakeholders may use the threat of programming foreclosure to demand higher per-subscriber affiliate fees for Discovery when contracts are renegotiated. These fees may then be passed through to consumers in the form of higher prices for MVPD service.

180. To evaluate these concerns, we propose two alternative but related models for analyzing the effect of the Stakeholders on Discovery's incentive to engage in a programming foreclosure of an MVPD, as well as on the potential for Discovery to charge higher affiliate fees after the transaction. Both models utilize the Nash bargaining framework that was used in the *Comcast-NBCU Order*.[215] The two models follow a similar methodology but differ in their characterization of the Nash bargaining equilibrium.

181. We first present a model similar to that adopted by the Salop Reply Declaration, where the Stakeholders bargain with an MVPD on behalf of Discovery while leveraging their joint equity interests in New Charter and Discovery to determine their expected profits from licensing versus foreclosure.[216] The Stakeholders obtain a share of Discovery's licensing revenue when a licensing agreement is reached. However, they benefit from a foreclosure of Discovery programming if enough subscribers depart from a foreclosed MVPD to New Charter in order to retain access to Discovery. In this case they would obtain a share of New Charter's profits from these new MVPD subscribers. Consequently the Stakeholders would initiate a foreclosure of Discovery programming if they expect their foreclosure revenue to exceed their licensing revenue. This approach implicitly assumes that the

[213] *See supra* Order, para. 179.

[214] Salop Reply Decl. at para. 21.

[215] *See supra* para. 123 & note 163.

[216] Salop Reply Decl. at para. 33.

Stakeholders would disregard their fiduciary duties to Discovery shareholders and force a foreclosure of programming if they find it to be in their joint best interest.

182. The second model proposes an alternative bargaining framework where Discovery bargains with an MVPD but is influenced by the Stakeholders based on whether they themselves would prefer to license or foreclose. In this alternative specification, the Stakeholders cannot simply decide to foreclose on their own, but can improve Discovery's bargaining position by increasing its opportunity cost of licensing if their net profits from a programming foreclosure are expected to be positive. Discovery may choose to foreclose programming to MVPDs that compete with New Charter if it expects the Stakeholders to obtain such profits from foreclosure that they can fully compensate Discovery for its loss of licensing revenue. Consequently, Discovery would only withhold programming if it is in the best interest of the company as a whole. This modeling approach therefore stems from the assumption that the equilibrium outcome is incentive compatible for Discovery, its shareholders, and the Stakeholders.

183. Following a discussion of each theoretical model, we estimate whether a foreclosure of Discovery programming is expected to occur as a result of the transaction, and additionally determine the likely magnitude of any price changes. We examine both nationwide foreclosure as well as targeted foreclosure at the DMA level. Below, we lay out the bargaining models and present empirical results derived from Applicant and third-party data.

b. Stakeholders Negotiate on Behalf of Discovery

184. We first present the Nash bargaining framework for a scenario where the Stakeholders negotiate on behalf of Discovery, but maximize their own profits based on their joint partial ownership interests in Discovery as well as New Charter.

(i) Variable Definitions

185. Where applicable we retain a parameterization consistent with what was used in the RSN analysis.[217] However, the presence of partial ownership interests necessitates the introduction of additional parameters. As such, the following table defines the key variables and parameters that will be used throughout this analysis:

[217] *See supra* paras. 118-121 for RSN analysis parameterization.

Table 40
Variable Definitions

Ownership Variables:	
θ	Malone & Advance/Newhouse pre-transaction joint equity share in Discovery
s_c	Malone & Advance/Newhouse pre- transaction joint equity share in Charter
s_b	Advance/Newhouse pre- transaction equity share in Bright House
s_{nc}	Malone & Advance/Newhouse post-merger joint equity share in New Charter
Revenue Variables:	
A	Discovery's advertising revenue per subscriber
F_r	Discovery's affiliate fee per subscriber to firm *r*
F_{-r}	Discovery's average affiliate fee per subscriber to all other MVPDs
Subscriber Churn Variables:	
d	Share of an MVPD's subscribers that switch to an alternative MVPD when Discovery is withheld
α_c	Share of switching subscribers that choose Charter
α_b	Share of switching subscribers that choose Bright House
α_t	Share of switching subscribers that choose Time Warner Cable
Margins and Subscriber Counts:	
N	Total number of video subscribers
N_r	Number of video subscribers to firm *r*
M_r	Firm *r* monthly per-video subscriber pre-SAC profit margin
M_c	Charter monthly per-video subscriber pre-SAC profit margin
M_b	Bright House monthly per-video subscriber pre-SAC profit margin
M_t	Time Warner Cable monthly per-video subscriber pre-SAC profit margin

Note: We define the monthly video margins as "gross" margins in that they do not net out the affiliate fee charged by Discovery.

(ii) Transaction-Specific Change in Affiliate Fees

186. We propose a NBE where the Stakeholders bargain with an MVPD on behalf of Discovery. In the NBE, the Stakeholders and the MVPD maximize the product of their excess bargaining profits with respect to the affiliate fee. The fee that solves the first order condition is therefore the equilibrium price of programming that both parties agree upon. To determine how the transaction would affect this price, we present the pre- and post-transaction NBE given net bargaining profits to both parties.

(a) Pre-Transaction

187. To determine the Stakeholders' pre-transaction net profit from bargaining, we must take into account their joint share of Discovery licensing profits as well as their financial interests in Charter and Bright House. Their share of the revenue from licensing Discovery is as follows:

188. $$License\ Revenue_s = \theta\left[\left(A + F_{r,pre}\right)N_r + (A + F_{-r})(N - N_r)\right]$$

The Stakeholders' total licensing revenue is comprised of the share θ of advertising and affiliate fees from licensing to the rival MVPD (denoted by the subscript *r*) at a pre-transaction price of $F_{r,pre}$, as well as from licensing to all other MVPDs at an average price of F_{-r}.

189. Conversely, the Stakeholders lose revenue when no carriage agreement is reached but may profit if the MVPDs they have an ownership interest in can capture some fraction of subscribers departing from the foreclosed MVPD. Therefore, their total foreclosure revenue is as follows:

$$Foreclosure\ Revenue_s = \theta[(A + F_{-r})(N - N_r) + d(A + F_{-r})N_r] + dN_r[s_c\alpha_c(M_c - F_{-r}) + s_b\alpha_b(M_b - F_{-r})]$$

The Stakeholders retain licensing revenue from all MVPDs except for the foreclosed rival, while continuing to gain revenue from the share *d* of subscribers that depart the rival for an MVPD that still carries the programming. Lastly, the Stakeholders gain additional revenue from those subscribers that churn to an MVPD they have a partial ownership interest in.

190. Their net bargaining profit is therefore the licensing revenue minus the foreclosure revenue:

$$Net\ Profit_s = \theta\left[\left(A + F_{r,pre}\right) - d(A + F_{-r})\right]N_r - d[s_c\alpha_c(M_c - F_{-r}) + s_b\alpha_b(M_b - F_{-r})]N_r$$

191. Similarly, the revenue to the rival MVPD from a licensing agreement is:

$$License\ Revenue_r = N_r(M_r - F_{r,pre})$$

192. And the revenue to the rival MVPD in case of a foreclosure is:

$$Foreclosure\ Revenue_r = N_r(1 - d)M_r$$

193. Therefore, the rival MVPD's net bargaining profit is:

$$Net\ Profit_r = N_r dM_r - N_r F_{r,pre}$$

194. Then, the NBE can be characterized as follows:

$$\max_{F_{r,pre}} \{(Net\ Profit_s) \cdot (Net\ Profit_r)\}$$

195. To simplify the derivative, and for future comparison to the post-transaction equilibrium result, let us define for the moment:

$$\pi_i^{-r} = M_i - F_{-r}$$

That is, π_i^{-r} is the pre-transaction margin of a non-rival MVPD (the Applicants) taking into account the average Discovery affiliate fee. Recall that we had defined the margin M_i as excluding this affiliate fee and had therefore explicitly subtracted the F_{-r} in the Stakeholders' foreclosure revenue equation above.

196. Then, with the above notation, taking the first order condition, setting equal to zero and solving for $F_{r,pre}$ results in the following pre-transaction equilibrium affiliate fee charged to the rival MVPD:

$$F^*_{r,pre} = \frac{A(d-1)\theta + d[s_c\alpha_c\pi_c^{-r} + s_b\alpha_b\pi_b^{-r} + \theta(M_r + F_{-r})]}{2\theta}$$

(b) Post-Transaction

197. The post-transaction equation for net licensing profits to the rival MVPD remains unchanged, except that profits are now based on the post-transaction equilibrium affiliate fee:

$$Net\ Profit_r = N_r dM_r - N_r F_{r,post}$$

198. However, the addition of Time Warner Cable and Bright House to New Charter results in increased diversion towards New Charter when the programming is withheld, and therefore increased revenue from foreclosure accruing to the Stakeholders. Consequently, their post-transaction net licensing profit becomes:[218]

$$Net\ Profit_s = \theta\left[\left(A + F_{r,post}\right) - d(A + F_{-r})\right]N_r - ds_{nc}[\alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r}) + \alpha_t(M_t - F_{-r})]N_r$$

[218] Note that the Applicants and all MVPDs not currently negotiating with Discovery do not see a change in their licensing fees from the pre-transaction price level. As bargaining is bilateral, the NBE holds fixed the affiliate fees of all other MVPDs not involved in the post-transaction bargaining process. Additionally, whereas the pre-transaction equity shares for the Stakeholders varied between Charter and Bright House, in the post-transaction world we assume that $s_c = s_b = s_t = s_{nc}$, which is the Stakeholders' post-transaction share in the newly combined entity.

199. We maximize the joint licensing profits with respect to the post-transaction affiliate fee and solve the first order condition. The resulting post-transaction affiliate fee is as follows:

$$F^*_{r,post} = \frac{A(d-1)\theta + d[s_{nc}(\alpha_c \pi_c^{-r} + \alpha_b \pi_b^{-r} + \alpha_t \pi_t^{-r}) + \theta(M_r + F_{-r})]}{2\theta}$$

Taking the difference between $F^*_{r,post}$ and $F^*_{r,pre}$, we can derive an equation for the transaction-specific change in the affiliate fee charged to a rival:

$$\Delta F_r = \frac{d[\alpha_c \pi_c^{-r}(s_{nc} - s_c) + \alpha_b \pi_b^{-r}(s_{nc} - s_b) + s_{nc}\alpha_t \pi_t^{-r}]}{2\theta}$$

Data are available to estimate this transaction-specific change in the affiliate fee for all of the above parameters with the exception of the expected departure rate, *d*. We turn to a theoretical strategy for estimating the departure rate in the following section.

(iii) Expected Departure

200. As in our analysis of Time Warner Cable's RSNs, it is possible to calculate the expected subscriber departure rate from an MVPD given a loss of Discovery programming from currently observed affiliate fees. As we have just seen, the affiliate fees per subscriber that are realized for Discovery are a function of a bilateral bargaining process that takes into account expected revenues and costs to both parties. Because we observe these (pre-transaction) affiliate fees from existing licensing agreements, we can back out the subscriber departure rate that an MVPD would expect to see if Discovery programming is withheld.

201. We again utilize the NBE described above to derive a formula for the expected departure rate given a breakdown of bargaining. The focus here is on pre-transaction bargaining, as we do not have any reason to suspect that the transaction would impact the value of Discovery programming to subscribers and their resulting decisions to switch MVPDs due to a programming foreclosure. To derive the departure rate we need to re-write the pre-transaction Nash equilibrium affiliate fee formula to solve for *d* rather than F_r. In effect, we are looking for the departure rate that results in a pre-transaction affiliate fee of $F_{r,pre}$, which is known, given the structure of optimal bargaining that we have laid out. Solving the above equation for *d* results in the following:

$$d = \frac{\theta(A + 2F_{r,pre})}{\theta(A + F_{-r} + M_r) + s_c \alpha_c \pi_c^{-r} + s_b \alpha_b \pi_b^{-r}}$$

202. In a later section, we will estimate expected departure rates and then utilize those results to derive an estimate of the potential transaction-specific change in the affiliate fee charged to a rival.

(iv) Critical Departure

203. Lastly, we derive an equation for the critical departure rate necessary to make a foreclosure of Discovery programming profitable for the Stakeholders. This is the rate that makes the Stakeholders indifferent between foreclosing and licensing *(i.e.*, the rate at which their net licensing profit is zero). To determine the critical departure rate, we compare their benefits of licensing Discovery, based on their equity interests, to the opportunity cost of profiting from subscribers that choose to leave a foreclosed MVPD for New Charter. As we are concerned about the proposed transaction's effect on the Stakeholder's incentive and ability to foreclose, we focus on the post-transaction critical departure rate.

204. Similar to the pre-transaction case, the Stakeholders' total post-transaction gains from licensing Discovery are:

$$License\ Revenue = \theta\left[\left(A + F_{r,post}\right)N_r + (A + F_{-r})(N - N_r)\right]$$

Their post-transaction opportunity cost of licensing Discovery is:

$$Foreclosure\ Revenue = \theta[(A + F_{-r})(N - N_r) + d(A + F_{-r})N_r] + ds_{nc}[\alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r}) + \alpha_t(M_t - F_{-r})]N_r$$

The critical departure rate is then the rate at which the licensing gains equal the foreclosure gains. Setting the above License and Foreclosure Revenue equations equal and solving for *d* results in the following critical departure rate:

$$d^{critical} = \frac{\theta(A + F_{r,post})}{\theta(A + F_{-r}) + s_{nc}(\alpha_c\pi_c^{-r} + \alpha_b\pi_b^{-r} + \alpha_t\pi_t^{-r})}$$

(v) Empirical Analysis

205. We now turn to the estimation of critical and expected departure, as well as the expected change in affiliate fees, using Applicant and other data sources. We first perform the analysis at the DMA-level to estimate the impact of targeted foreclosure strategies that may seek to only deny programming in DMAs where it is most profitable for the Stakeholders. We then form estimates of the impact of a nationwide foreclosure strategy by averaging over the effects across DMAs. We additionally present results for a nationwide strategy that does not build up from a DMA-level estimation, though we discuss our hesitance to rely on such an approach.

206. The analysis examines the possibility of Discovery programming foreclosure of AT&T, DIRECTV, DISH Network, and Verizon. Given the recent combination of AT&T and DIRECTV, we also examine the possible foreclosure of both of these firms simultaneously.

(a) Nationwide vs. Market-Level Estimation

207. The majority of the Salop Reply Declaration analysis focuses on nationwide foreclosure. While we agree that such a strategy is plausible, we take issue with the approach outlined in Salop Reply Decl. for examining the likelihood of nationwide foreclosure of Discovery. In particular, their analysis relies on a nationwide estimate of diversion from a rival MVPD to Charter, Time Warner Cable, and Bright House.[219] Though our DMA-level approach similarly relies on diversion proportional to subscriber shares, we believe that the calculation of diversion rates is only plausible within-DMA and is inaccurate and largely uninterpretable when estimated on a nationwide basis.[220]

208. As an example, Salop Reply Declaration estimates the diversion from Verizon to Bright House to be 2.3 percent based on both companies' national shares of video subscribers.[221] However, Bright House and Verizon only overlap in a single DMA--Tampa, Florida.[222] In that DMA, the proportional diversion from Verizon to Bright House is 70 percent.[223] Therefore, we can see how skewed the Salop Reply Declaration estimate becomes when calculating diversion from nationwide subscriber shares. It does not take account of actual footprint overlap and comes up with an arbitrary nationwide measure that does not reflect information about the actual DMAs in which these firms operate. This would be less of a concern if the analysis was not particularly sensitive to diversion rates; however,

[219] *See* Salop Reply Decl. at paras. 21, 23, 25.

[220] Salop Reply Decl. does estimate targeted foreclosure for a group of markets where the transaction may have the largest effect, though the calculation of diversion even for this subset of markets is again suspect. Furthermore, this analysis of post-transaction affiliate fees is based on nationwide diversion rates. *See id.*, Appendix A, paras. 4-6 for discussion of nationwide diversion calculations.

[221] To be specific, Salop Reply Decl.'s diversion from Verizon to Bright House is equal to Bright House's nationwide video subscriber share divided by 1 minus the share of all telcos (since telcos do not overlap) (0.02/(1-0.132). *See* Salop Reply Decl., Appendix B, para. 21

[222] SNL Kagan, 2Q2015.

[223] *Id.*

diversion plays a central role in determining the Stakeholders' net licensing profits and therefore their effect on the NBE.

209. We therefore conclude that estimating foreclosure incentives on a DMA-basis, and deriving predictions across DMAs to arrive at a conclusion about a nationwide strategy, is a better approach than relying on dubious nationwide diversion measures. Our approach is equivalent to assuming that the Stakeholders negotiate separately within each DMA, taking specific market conditions into account when determining whether to foreclose and how much to charge. Estimates of a nationwide price effect can then be derived by averaging across DMAs, while the likelihood of nationwide foreclosure can similarly be determined by summing the Stakeholders' net licensing profits across DMAs.[224]

(b) Calibration and Model Sensitivity

210. Table 41 below presents our calibration of the model, including our estimates of pre-transaction affiliate fees and advertising revenues per subscriber, average MVPD video subscriber margins, and relevant equity shares.[225] Though we do not present them here, the diversion rates are calculated on a DMA-by-DMA basis from each rival MVPD to each of the Applicants.[226] A number of assumptions are employed to arrive at the model inputs in Table 41. They are described in the accompanying footnotes (224 and 225), and their validity and robustness will be discussed throughout the empirical analysis.

[224] We are not suggesting that Discovery actually charges an affiliate fee that varies across DMAs. Rather, we are assuming that negotiations take into account local marketplace conditions when determining an overall price to charge an MVPD.

[225] We make a number of simplifying assumptions. These include assuming a linear loss of advertising revenue when foreclosing on a single rival. It can be argued that the appropriate relationship between advertising revenue and programming coverage is non-linear, with a loss of a large content distributor potentially leading to a steep drop in advertising rates. This would reduce the likelihood of foreclosure relative to our assumption.

We also assume a constant affiliate fee for Discovery across MVPDs, as we do not have access to data that would allow us calculate the true rate for each firm. We apply the Salop Reply Decl. methodology to calculate this rate given SNL Kagan data for the per-subscriber price for each channel composing Discovery Communications. *See* Salop Reply Decl. Appendix A, paras. 8-11; SNL Kagan, 2015

Lastly, we apply the Salop Reply Decl. methodology to estimate a composite video subscriber profit margin for the Applicants (and arrive at the same number). *See* Salop Reply Decl. Appendix A para. 7. Additional margins data for rival DBS and Telco firms comes directly from third-party data requests. *See* AT&T Nov. 24, 2015, Updated Response to Information Request; Exhibit 13a; AT&T Dec. 23, 2015, Updated Response to Information Request, Exhibit 10.1.1; Verizon Dec. 23, 2015, Updated Response to Information Request, Exhibit 10a.1.

[226] A key assumption we make in calculating market-level diversion is that the diversion rate is equal to zero in DMAs where either the rival MVPD is not present, or the MVPD that is being diverted to (either Charter, Bright House, or Time Warner Cable) is not present.

Table 41
Model Inputs
[**BEGIN HIGHLY CONF. INFO.]**

Ownership Variables
Revenue Variables
Margins (Net):

[END HIGHLY CONF. INFO.]

211. We acknowledge and endeavor to point out certain limitations of the proposed Nash bargaining model. The model is sensitive to certain parameters, and we conduct a robustness check, as discussed below, to verify our conclusions. In particular, the substantial cross-DMA variation in diversion rates leads to large differences in estimates of the transaction-specific change in the per-subscriber affiliate fee. The model is similarly sensitive to video subscriber margins. Whereas Salop assumes the same **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** margin for all MVPDs, we use MVPD-specific video margins derived from Applicant and third-party data.[227] These margins vary substantially by MVPD, and result in substantial differences across MVPDs in estimates of expected departure rates, and subsequently of affiliate fees.

212. This last point is significant, and raises the same issue that was discussed in the RSN analysis. Specifically, we would not assume departure resulting from a programming foreclosure to vary substantially across MVPDs, and we would certainly not attribute any variation to differences in video margins. The Nash bargaining model leads to such a prediction because it assumes that different MVPDs pay different prices for Discovery programming. However, due to data limitations we only see a single price for each of Discovery's networks, and create a weighted average affiliate fee across channels (presented in Table 41 above) to use in the analysis.[228] If the same affiliate fee is charged to all firms in the marketplace, then lower margin MVPDs must expect a higher subscriber departure rate relative to high margin competitors. If low margin firms expected the same departure rate, then they would be able to negotiate lower affiliate fees because their foregone revenue from a departing subscriber is lower.

[227] *See* AT&T Nov. 24, 2015, Updated Response to Information Request; Exhibit 13a; AT&T Dec. 23, 2015, Updated Response to Information Request, Exhibit 10.1.1; Verizon Dec. 23, 2015, Updated Response to Information Request, Exhibit 10a.1.

[228] As discussed in footnote 225 above, we follow Salop Reply Decl.'s approach in creating a composite affiliate fee and advertising revenue measure for Discovery.

Consequently, the departure rates implied by equilibrium bargaining are higher for low-margin relative to high-margin MVPDs.[229]

213. As a robustness check, we therefore also present estimates derived from the model under the assumptions found in the Salop Reply Declaration (i.e., nationwide diversion rates and a constant video margin across MVPDs).[230] Though we have reservations about these assumptions, they are informative in that they allow us to, in effect, examine the comparative statics of certain parameters on the NBE. They also serve as a comparison to nationwide estimates derived from averaging across our market-level results.

(c) Results

214. *Incentive to Foreclose.* We begin by examining whether the Stakeholders would have an incentive to foreclose Discovery programming in any DMAs to any of the MVPDs we study. While we do not present the results for all 210 DMAs, the table below presents the top twenty likeliest foreclosure targets for each MVPD, based on a comparison of each MVPD's expected departure rate to the Stakeholders' critical departure rate necessary for profitable foreclosure in that DMA. We also present the average and median difference between expected and critical departure for each MVPD across all 210 DMAs.

[229] For example, although DISH and DIRECTV have lower per-subscriber video margins, they are likely to receive a lower price for Discovery programming due to their larger nationwide subscriber base. If we knew this price, then the model would predict an attenuation of the effect of their video margins on the expected departure rate of their subscribers.

[230] *See* Salop Reply Decl., Appendix A, para. 4-6 for discussion of nationwide diversion calculations, and Appendix A, para. 7 for discussion of margin data.

Table 42
Potential Foreclosure Targets
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215. The results indicate that foreclosure is not a profitable strategy. While the simultaneous foreclosure of AT&T and DIRECTV is the least unprofitable strategy, due mainly to the increased diversion to New Charter, the Stakeholders would still prefer to license in every DMA. Similarly, the

cross-market average and median differences in departure rates indicate that on a nationwide basis they would likely have no incentive to foreclose programming to any Telco or DBS rivals.[231]

216. The last two rows in Table 42 present the results from an estimation that relies on the Salop Reply Declaration assumptions regarding nationwide diversion and equal margins.[232] These estimates are not averaged across DMAs, but rather derived for the country as a whole. We can see that the nationwide analysis, with its dubious assumptions, reaches the same conclusion as the preferred market-level approach.

217. *Price Effects.* We now turn to an examination of the transaction-specific effect of the Stakeholders' ownership interests on equilibrium affiliate fees. As previously mentioned, we are aware that Discovery affiliate fees do not vary by geography. Therefore we are not suggesting that Discovery would engage in the kind of DMA-specific price discrimination predicted by our Nash bargaining model. However, we find it plausible that the bargaining process between Discovery and an MVPD takes into consideration local DMA conditions when determining an overall pricing structure. Consequently we present and discuss these DMA-level results to inform our analysis and draw conclusions about the likely magnitude of any post-transaction price change for Discovery as a whole.

218. Rather than present results for each DMA, we again summarize the results in the table below. This table presents the distribution of the expected change in affiliate fees ($F_{r,post} - F_{r,pre}$) across DMAs. It additionally presents the average change, as well as the weighted average change with weights equal to the total number of video subscribers in each market. The last two rows again present the results of a nationwide analysis utilizing the Salop Reply Decl. assumptions.

Table 43
Distribution of Change in Affiliate Fees

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[END HIGHLY CONF. INFO.]

219. For Verizon and AT&T, the median DMA is expected to see no change in their post-transaction affiliate fees. The average change for Verizon is about **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]**, while for AT&T it is **[BEGIN HIGHLY CONF. INFO.]**

[231] We only present a limited set of markets for Verizon because the calculated difference in departure rates only grows from the Palm Springs DMA estimate. At an estimated **[BEGIN HIGHLY CONF. INFO.]** **[END HIGHLY CONF. INFO.]** percent difference, foreclosure should already be extremely unlikely.

[232] *See supra* note 197.

[END HIGHLY CONF. INFO.]. However, the model predicts **[BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** for DIRECTV and DISH. That the median fee increase for DIRECTV and DISH is substantially lower than the mean suggests that the cross-DMA average fee increase is being driven by a smaller subset of DMAs where diversion to Time Warner Cable is high. Furthermore, since the weighted mean is below the unweighted, the DMAs with the highest post-transaction diversion to Time Warner Cable are relatively small in terms of total video subscribers.

220. Though these results are illustrative, we again acknowledge their sensitivity to variation in diversion and video margins. DBS providers are lower margin companies, and generally see higher diversion towards competitors if they are foreclosed from programming (due to their higher subscriber shares). This combination of factors leads to substantial predicted increases in post-transaction affiliate fees. As these results come directly from model assumptions regarding the structure of bargaining and the effect of margins and diversion on equilibrium departure rates and affiliate fees, they should be treated with some caution. In fact, we will later see that the modified NBE model, with our preferred bargaining framework, reaches a different conclusion with regard to the likely effect of the transaction on the price of Discovery programming.

221. In the second to last row we see how assuming a single nationwide diversion rate affects predicted post-transaction prices. Simultaneously assuming a single margin of [**BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.]** across MVPDs further reduces the expected price change; however, it is evident that nationwide versus DMA-level diversion is a first-order assumption with regard to the effect on predicted post-transaction affiliate fees.

222. We highlight the results at the one percentile: there are a handful of DMAs where the predicted post-transaction affiliate fee falls dramatically, and in fact drops below zero. These DMAs are unique in that they have no Time Warner Cable presence, but have a strong Bright House presence with concurrently large diversion rates from rival firms. Logically, DMAs outside of the Time Warner Cable footprint should see no change in affiliate fees because the Stakeholders receive no additional profit due to post-transaction diversion from a foreclosed rival to Time Warner Cable. However, the structure of the NBE indicates that affiliate fees are also affected by the change in equity from Charter and Bright House to New Charter. Advance/Newhouse owns 100 percent of Bright House pre-transaction, thereby receiving the full benefit of diversion in these DMAs. After the transaction, Bright House is a small part of a much larger entity, with Advance/Newhouse's (and therefore the Stakeholders') share "dropping" to 14.7 percent. Therefore the Stakeholders' incremental per-subscriber profit is substantially lower in the post-transaction world in DMAs where Bright House has a strong presence. Due to the structure of Nash bargaining, where the Stakeholders bargain on behalf of Discovery, this leads to a sharp drop in post-transaction affiliate fees.

223. This last result highlights another weakness of a bargaining framework that assumes the Stakeholders can simply bargain on behalf of Discovery to maximize their own profits. In what follows, we propose an alternative methodology that precludes the Stakeholders from undermining their own or Discovery's bargaining position. This new approach assumes that the Stakeholders can only affect bargaining to the extent that they would themselves prefer a programming foreclosure. In such a case, they would be able to raise Discovery's opportunity cost of licensing, thereby improving their bargaining position and allowing them to increase their price.

c. Discovery Negotiates Leveraging the Stakeholders' Equity Interests

(i) Model

224. We now present an alternative bargaining framework that does not assume the Stakeholders can simply bargain for Discovery and take actions that may put them at odds with Discovery shareholders. In this approach, Discovery bargains with an MVPD but attempts to leverage the Stakeholders' equity interests in Charter and Bright House to improve its position.

225. For this modeling approach, NBE affiliate fees are affected by the Stakeholders to the

extent that they are able to raise Discovery's opportunity cost of bargaining, and therefore their refusal power. Suppose that the Stakeholders' joint net profits per-subscriber from licensing are equal to γ. Then, Discovery's net licensing profits are the following:

$$Net\ Profit_{discovery} = [(A + F_r) - d(A + F_{-r})]N_r + \min[0, \gamma N_r]$$

226. Where F_r is again the affiliate fee charged to the rival firm, while F_{-r} is the average fee charged to all other MVPDs. To understand this specification, let us assume for simplicity that the Stakeholders have negative net licensing profits ($\gamma < 0$), and that these profits are known. We then have the following NBE condition:

$$\max_{F_r} \{([(A + F_r) - d(A + F_{-r})]N_r + \gamma N_r) \cdot (N_r d M_r - N_r F_r)\}$$

Taking the derivative, setting equal to zero and solving for F_r results in the following:

$$F_r^* = \frac{A(d-1) + d(F_{-r} + M_r) - \gamma}{2}$$

227. This modeling approach implicitly assumes that Discovery bargains to maximize its own licensing profits. Discovery does not consider how the affiliate fee it ultimately charges would affect the Stakeholders' joint profits (we do not consider the partial derivative of γ with respect to F_r when taking the derivative above); Discovery only knows that as a result of bargaining, the Stakeholders would have some licensing profit per subscriber, and that if this profit is negative (i.e., if the Stakeholders have a positive net foreclosure profit), then Discovery can leverage it to raise affiliate fees.

228. We want to know how the Stakeholders' net licensing profits affect the equilibrium affiliate fee. We therefore take the derivative of F_r^* with respect to γ:

$$\frac{\partial F_r^*}{\partial \gamma} = -\frac{1}{2}$$

229. The results are intuitive. As the Stakeholders' net licensing profits increase (become less negative), Discovery's negotiated affiliate fee would drop. Furthermore, once the Stakeholders' net licensing profits become positive we can see that the affiliate fee would drop below the amount that would be negotiated if they had no influence at all (the case where $\gamma = 0$). Therefore, in this specification of the NBE, the Stakeholders would only improve Discovery's bargaining position if their net licensing profits are negative. Intuitively this is because the Stakeholders can offer any positive net foreclosure profits (i.e., negative licensing profits) to Discovery to offset their gains from licensing. When γ is negative, the Stakeholders can commit to giving Discovery an amount ($\gamma - \varepsilon$) to encourage foreclosure and still be better off. Even if Discovery does not foreclose, it can leverage the Stakeholders' position to raise affiliate fees during negotiations and increase both its own and the Stakeholders' net licensing profits.

230. A key result of this model is that affiliate fees would only increase post-transaction under two conditions: The first is that the Stakeholders have negative licensing profits pre-transaction, and additional transaction-specific diversion to Time Warner Cable reduces these profits even further; the second is that the Stakeholders have positive licensing profits pre-transaction, but the transaction-specific diversion to Time Warner Cable is so large that their post-transaction licensing profits become negative (on a per-subscriber basis).

231. Given that we know pre-transaction affiliate fees, we have nearly all the data necessary to calculate the Stakeholders' net pre-transaction licensing profit. As a reminder, it is calculated as the following:

$$Net\ Profit_s^{pre} = \theta\left[\left(A + F_{r,pre}\right) - d(A + F_{-r})\right]N_r - d[s_c\alpha_c(M_c - F_{-r}) + s_b\alpha_b(M_b - F_{-r})]N_r$$

The post-transaction scenario is more difficult, as the Stakeholders' net profit (and therefore whether the

model predicts they would influence negotiations) depends on the expected post-transaction affiliate fee. That is, the Stakeholders' licensing profit and the expected affiliate fee are endogenous. This hurdle can be overcome by simply assuming that they have negative post-transaction licensing profits and solving for the affiliate fee. If it is above 1.3 (the pre-transaction level) then we know that it is in Discovery's best interest to leverage the Stakeholders' equity interests during negotiations. Conversely, if it is below 1.3 then Discovery is better off simply assuming that $\gamma = 0$.[233]

232. Formally this is equivalent to solving the above NBE assuming that $\gamma \neq 0$. To be precise, we solve the NBE under the assumption that the Stakeholders' post-transaction licensing profits are negative and equal to the following:

$$Net\ Profit_s^{post} = \theta\left[\left(A + F_{r,post}\right) - d(A + F_{-r})\right]N_r - ds_{nc}[\alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r}) + \alpha_t(M_t - F_{-r})]N_r$$

We know that the post-transaction affiliate fee is equal to the following:

$$F_{post}^{*} = \frac{A(d-1) + d(F_{-r} + M_r) - \gamma_{post}}{2}$$

Plugging in the above net profit formula for γ_{post} and solving for *F* results in the appropriate post-transaction affiliate fee, which can be compared to the pre-transaction threshold to determine Discovery's best course of action.

233. We apply this solution concept for all rival MVPDs in each DMA to determine post-transaction affiliate fees. Again, if the resulting fees are below 1.3 then we know that the Stakeholders' post-transaction licensing profits are in fact positive, and therefore they would have no influence on negotiations. Consequently the true change in affiliate fees would be zero.

(ii) Departure Rates

(a) Expected Departure

234. This modified NBE introduces an additional complication in the estimation of the appropriate expected departure rate from an MVPD. We can now calculate two separate rates—one based on an equilibrium where the Stakeholders have negative licensing profits, and therefore can affect affiliate fees, and one where they have positive licensing profits and have no impact.

235. The formula for *d* when the Stakeholders have no impact on negotiations is arrived at by taking the derivative of the above NBE condition with respect to F_r when γ is set equal to zero, and then solving the resulting first order condition for *d*. It is as follows:

$$d_{no\ stakeholders}^{expected} = \frac{2F_{r,pre} + A}{F_{-r} + A + M_r}$$

The formula for *d* when $\gamma < 0$ (Stakeholders matter) is arrived at similarly, with the additional necessary step of plugging back in for γ in the first order condition and solving for *d*:

$$d_{stakeholders}^{expected} = \frac{2F_{r,pre} + A + \theta(A + F_{r,pre})}{F_{-r} + A + M_r + \theta(A + F_{-r}) + s_c\alpha_c(M_c - F_{-r}) + s_b\alpha_b(M_b - F_{-r})}$$

236. To determine which departure rate is appropriate to use, we calculate the Stakeholders' net licensing profits assuming *d* is derived from a scenario where they can influence negotiations. If net profits are positive then we have a contradiction (Stakeholders would only be hurting Discovery's bargaining position) and we instead use the *d* derived from a no-influence scenario. As we will see in the empirical section, there are only a handful of DMAs where the Stakeholders have negative licensing

[233] This approach is, in effect, a proof by contradiction.

profits pre-transaction. This indicates that the appropriate expected departure rate calculation is almost always one in which the Stakeholders has no impact on equilibrium affiliate fees.

(b) Critical Departure

237. For the Stakeholders, critical departure rates are calculated exactly the same way as in the previous model (where they negotiate on behalf of Discovery). This is because we are still looking for a rate that makes them indifferent between licensing and foreclosure. Even if such a rate no longer means that Discovery would foreclose, as the Stakeholders do not have that kind of influence in this setting, it is still a rate we are interested in for analyzing individual foreclosure incentives.

238. We additionally calculate Discovery's critical departure rate. This rate would always be above that of the Stakeholders as Discovery receives all of the affiliate and advertising revenue rather than a share θ, and consequently has less incentive to foreclose. However, if enough subscribers switch to New Charter, and the Stakeholders commit to giving Discovery all net foreclosure profits, then even Discovery may find it profitable to foreclose.

239. To determine Discovery's critical departure rate in each DMA, we set its licensing revenue equal to its foreclosure revenue:

$$\left[\left(A + F_{r,post}\right) - d(A + F_{-r})\right]N_r = -\gamma_{post}N_r$$

Discovery receives the full revenue from advertising and affiliate fees when licensing its programming, but has an opportunity cost equal to the Stakeholders' net licensing profits when these profits are negative ($\gamma_{post} < 0$). We plug in the Stakeholders' profit formula for γ_{post} and solve for d:

$$d^*_{discovery} = \frac{(1+\theta)(A + F_{r,post})}{(1+\theta)(A + F_{-r}) + s_{nc}(\alpha_c\pi_c^{-r} + \alpha_b\pi_b^{-r} + \alpha_t\pi_t^{-r})}$$

(iii) Results

240. Using the new bargaining equilibrium derived above, we present a set of results similar to those presented for the previous model. The analysis is again conducted on a DMA level, and the calibration of key parameters remains unchanged.[234]

(a) Incentive to Foreclose

241. Table 44 and Table 45 below present the differences between expected and critical departure rates estimated from the new Nash bargaining framework. We again present the likeliest foreclosure targets, as well as average and median differences across DMAs. Table 44 presents the results for the Stakeholders, comparing expected departure to their critical departure rates. Table 45 presents results for Discovery as a whole.

242. As with the previous model, these results generally suggest that foreclosure is not in the Stakeholders' best interests. There are, however, 11 DIRECTV DMAs and five DISH DMAs where the Stakeholders' critical departure rate is below the expected departure rate. These are the DMAs where their net licensing profits are expected to be negative, and the potential for profitable foreclosure exists. However, the Stakeholders are not bargaining on behalf of Discovery and are unable to foreclose on their own. The question relevant to this model is whether foreclosure is so profitable that the Stakeholders are able to compensate Discovery fully in order to encourage the programmer to foreclose. If this were the

[234] In the following set of results, we do not present estimates for the joint foreclosure of AT&T and DIRECTV. Due to the added complexity of the modified NBE model presented here, there is no way of calculating the joint effect of a programming foreclosure on both AT&T and DIRECTV without making an assumption with regard to their joint margin (the expected margin of the newly combined entity). However, when assuming that the joint margin is either AT&T's or DIRECTV's current margin, or a simple average of the two, our results indicate that Discovery would not find it profitable to either foreclose or raise affiliate fees on the newly combined entity.

case, both Discovery and the Stakeholders would be better off and would not violate their fiduciary duty to Discovery shareholders.

243. Table 45 presents the difference between expected departure and Discovery's critical departure rate (as discussed in the previous section). We can see that even in the DMAs where foreclosure is profitable for the Stakeholders, it is still extremely unprofitable for Discovery as a whole. That is, the Stakeholders are not expected to make enough net profits from foreclosure to compensate Discovery for its expected loss in affiliate and advertising revenue. We therefore would expect that Discovery would not foreclose its programming in any DMAs.

Table 44
Potential Foreclosure Targets – Stakeholders
[BEGIN HIGHLY CONF. INFO.]

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Table 45
Potential Foreclosure Targets – Discovery
[BEGIN HIGHLY CONF. INFO.]

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(b) Price Effects

244. Though foreclosure is unlikely, we again examine whether there is the potential for significant post-transaction increases in the expected affiliate fee paid by MVPDs to Discovery. Table 46 below presents the distribution of the expected transaction-specific change in affiliate fees across markets, as well as the cross-market average and weighted average change.

Table 46
Distribution of Change in Affiliate Fees
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]

245. Contrary to the results derived from an NBE assuming the Stakeholders negotiate on

behalf of Discovery, when we assume that Discovery negotiates on its own, but leverages the Stakeholders' interests where possible, we find that the transaction-specific price effects are essentially zero.[235]

246. We believe that the assumptions underlying this model are more in line with how Discovery actually bargains with MVPDs given the Stakeholders' partial ownership interests. In the previous model, John Malone and Advance/Newhouse were able to have a significant effect on post-transaction prices even in markets where it was in their best interest to license. Furthermore, there were outlier markets where they actually hurt Discovery by negotiating a fee lower than the pre-transaction level. The modified NBE presented here corrects these issues by assuming a bargaining structure where the Stakeholders has limited influence, and where outcomes are incentive-compatible for Discovery and Discovery shareholders. We therefore conclude that the transaction is unlikely to either create a foreclosure concern or raise the post-transaction price of Discovery programming to any MVPDs.

(iv) Critical Ownership Necessary for Foreclosure

247. We present a final analysis intending to demonstrate the equity ownership John Malone and Advance/Newhouse would need in New Charter in order for foreclosure to be a profitable strategy. We examine two separate equity ownership requirements: The ownership necessary for John Malone and Advance/Newhouse to jointly profit from foreclosure, and the ownership necessary for Discovery to profit as a whole.

248. To determine the ownership necessary for the Stakeholders to jointly prefer foreclosure to licensing, we simply set their post-transaction licensing profits equal to zero and solve for their share in New Charter:

$$\theta\left[\left(A + F_{r,post}\right) - d(A + F_{-r})\right]N_r - ds_{nc}[\alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r}) + \alpha_t(M_t - F_{-r})]N_r = 0$$

$$s_{nc}^{Stakeholders} = \frac{\theta\left[\left(A + F_{r,post}\right) - d(A + F_{-r})\right]}{d[\alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r}) + \alpha_t(M_t - F_{-r})]}$$

Similarly, to find the critical ownership for Discovery as a whole, we set its net licensing profits to zero:

$$\left[\left(A + F_{r,post}\right) - d(A + F_{-r})\right]N_r + \gamma_{post} = 0$$

Plugging in for γ then solving for s_{nc}, we have:

$$s_{nc}^{Discovery} = \frac{(1+\theta)\left[\left(A + F_{r,post}\right) - d(A + F_{-r})\right]}{d[\alpha_c(M_c - F_{-r}) + \alpha_b(M_b - F_{-r}) + \alpha_t(M_t - F_{-r})]}$$

We can immediately see that the Stakeholders' necessary equity share in New Charter would need to be much higher for Discovery to find it profitable to foreclose than if they were simply able to act in their own best interest.

249. Below we present the results. Table 47 presents the cross-market distribution of threshold equity shares necessary for the Stakeholders to prefer foreclosure; Table 48 does the same for Discovery.

[235] We present the full distribution of results even though there are essentially no price changes. This is in part to highlight that our modified NBE model does not result in reductions in the post-transaction affiliate fee in any markets.

Table 47
Distribution of NC Critical Ownership Equity – Stakeholders
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]

Table 48
Distribution of NC Critical Ownership Equity – Discovery
[BEGIN HIGHLY CONF. INFO.]

[END HIGHLY CONF. INFO.]

250. The average results across markets reported in Table 47 indicate that the Stakeholders would need to jointly own well over 100 percent of New Charter to consider a foreclosure of Discovery programming. However, the median critical ownership share is significantly lower. There are DMAs where the critical necessary ownership share is below the 14.7 percent the Stakeholders would have post-transaction, which is in line with our previous result that they would have a post-transaction incentive (but not ability given our preferred bargaining framework) to foreclose in a handful of areas.

251. Again, the relevant question is at what point the Stakeholders could expect to generate enough profit from foreclosure such that Discovery is fully compensated. Table 48 presents these results, and generally indicates that such a scenario would require ownership equity exceeding 100 percent, which is impossible.[236] We therefore conclude that not only is foreclosure unlikely given expected post-transaction equity, but it is unlikely even at ownership levels far exceeding those resulting from the transaction.

[236] We similarly find necessary critical ownership levels exceeding 100 percent for the joint foreclosure of AT&T and DIRECTV under reasonable assumptions of a joint margin for the newly combined entity.

STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN
APPROVING IN PART AND CONCURRING IN PART

Re: *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 15-149.

In the nearly 12 months since Charter Communications announced its intention to transfer its license along with those of Time Warner Cable and Bright House Networks to form New Charter, I have heard from many parties, including those that support, oppose or are advocates for conditions they feel would protect consumers and prevent harms to competition.

Like previous transactions presented during my tenure, I have maintained my focus on the likely consumer impact, the competitive implications, the effect on independent and diverse programming and the importance of expanded deployment of broadband and access to affordable services. While the Order seeks to address these goals by requiring a series of public interest benefits, which I do applaud, I continue to have concerns in key areas.

Let me begin by discussing the Applicant's proposed discounted broadband service offering for low-income subscribers. I have been steadfast in my commitment to programs that are not only accessible to those most in need, but offer the speeds necessary for those currently trapped in the "digital darkness" to take advantage of all the Internet has to offer. The pledge to provide stand-alone broadband service with download speeds of 30 Mbps, in excess of the FCC's baseline definition for those who qualify for the national school lunch program and SSI, is highly commendable. This should ensure that program participants who sign up for the service will be able to unlock the Internet's full potential, including access to advanced health services, education, the ability to apply for jobs, and so much more.

At the same time, there is a subset of low-income households we must never lose sight of: adults without school age children, veterans and persons with disabilities. That veteran from Wyoming who finds it challenging to access VA benefits or schedule a medical appointment online, or that disabled woman from Illinois who has difficulty searching and applying for a job could miss out on the benefits of this affordable broadband program. Nonetheless, it is indeed a significant step in the right direction and New Charter's commitment to exceed its initial enrollment targets in the 18 months following the close of the transaction, to ensure that the program truly meets the needs of its intended beneficiaries, is to be commended.

Second, in an effort to bridge the communications divide, I am pleased that the Order requires broadband builds, with speeds more than double the FCC's baseline definition, to two million additional locations. According to the Commission's most recent statistics, 34 million people still lack access to download speeds of at least 25 Mbps. This condition makes a small, but meaningful dent in our effort to bring broadband to all Americans. As the soon-to-be, second largest provider of broadband Internet access, with service to approximately one-fifth of households, I believe that New Charter should be required to build-out to more households with a specific focus on reaching those homes deemed 'unserved.'

Third, noticeably absent from the Order, though much discussed, is a condition on stand-alone broadband. While Charter currently offers a competitively priced stand-alone broadband service, nothing in this Order would prevent the elimination of this product. Why does this matter? In a world in which consumers are increasingly cutting the cord and relying on online video distributors (OVDs), a competitively priced, stand-alone broadband offering ensures consumers truly have a choice in where they get their video programming. I appreciate Charter's commitment to me that they have no intention to eliminate its competitive stand-alone broadband offering.

Fourth, like many of the parties that commented on this transaction, I am concerned about the barriers that continue to exist when it comes to independently owned and diverse programming networks. The settlement reached between DOJ and the Applicants addresses one of the barriers I frequently hear about: the use of alternative distribution method (ADM) clauses which programmers' claim thwart their ability to distribute content through online platforms. At the same time, independently owned-and-operated programmers point to other basic roadblocks such as simply being able to acquire carriage or difficulty receiving fair or reasonable contract terms. While I acknowledge the commitments made by Charter through the January 2016 Memorandum of Understanding, my preference would have been to see these issues addressed through a condition that requires the company to add additional independently owned-and-operated networks that are not currently affiliated with New Charter.

Finally, I remain concerned by the large number of outstanding local franchise agreements across Time Warner Cable's territory. Earlier this year, I heard from the mayor of a community that has been in a "hold over" franchise status for almost a decade! The cable industry prides itself on its commitment to local communities, yet the absence of PEG funding for this particular city not only seems contrary to this claim, but has left them with no public access studio and their city council chambers without the video equipment needed to allow its citizens to watch those proceedings from home. Although the Order does not condition the transaction on reaching a resolution on these agreements, I am happy that New Charter will act expeditiously to renew and settle these outstanding agreements.

For all of the above reasons, I vote to fully approve the conditions reached in this transaction, but because I am of the view that there are elements that should have gone further, I concur on the underlying Order.

DISSENTING STATEMENT OF COMMISSIONER AJIT PAI

Re: *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 15-149.

It is quite clear the Commission's majority does not believe that the merger of Charter, Time Warner Cable, and Bright House is in the public interest. This *Order* spends over 100 pages detailing the harms that would allegedly result from the transaction. And when the discussion turns to the merger's purported benefits, the words "modest" and "minimal" are used over and over again.

So why is the Commission approving this merger? Because it has turned the transaction into a vehicle for advancing its ambitious agenda to micromanage the Internet economy. Today, the Commission forbids Charter from adopting any usage-based pricing, even forbidding the company from providing discounts to customers who use little data. It mandates settlement-free interconnection and actually goes so far as to adopt a four-page document setting forth the details of Charter's interconnection requirements. It embraces rate regulation, ordering Charter to offer a 30/4 Mbps broadband service to certain customers for $14.99 a month and even details how many households must purchase this service. Notwithstanding its alleged concern about Charter's post-merger size, it requires the company to become even bigger by conscripting Charter to build out to two million additional locations (overbuilding one of those two million). It requires Charter to report to the Commission the latitude, longitude, address, and 15-digit census block code of every one of those two million locations, along with the date the company passes each location and begins to offer service with 60 Mbps download speed. It installs an independent monitor within the company to ensure compliance with these onerous conditions. And it imposes many of these conditions for the better part of a decade.

To be sure, one might ask: If Charter is willing to comply with these regulatory decrees as the price of getting this transaction approved, why should an FCC Commissioner object? In the AT&T/DirecTV merger, for example, I voted to approve in part, notwithstanding my opposition to numerous conditions that had nothing to do with that transaction. But at a certain point, a difference in degree becomes a difference in kind.

In this case, we have reached that point.

In particular, this *Order* sets the stage for the Commission to target paid peering and usage-based pricing on an industry-wide basis. The *Order* makes clear the Commission's view that paid peering and usage-based pricing are inherent threats to online video distributors. For example, the Commission finds "that *by their very nature*, data caps and [usage-based pricing] in use by wired [broadband Internet access service] providers currently significantly and chiefly affect online video traffic."[1] And if these practices are so harmful that Charter must not be allowed to engage in them, it is only a matter of time before no ISP will be permitted to do so.[2]

[1] *Order* at para. 85 (emphasis added).

[2] The writing is on the wall. *See, e.g.*, John Eggerton, Wheeler: Charter Conditions Create Competition Zone, *Multichannel News* (Apr. 28, 2016) (stating, pre-adoption, that with full range of non-merger-specific conditions, "we created a seven-year innovation and competition zone"), *available at* http://www.multichannel.com/news/finance/wheeler-charter-conditions-create-competition-zone/404539. Recall, too, that in this area the agency has dutifully changed its tune when special interests have demanded FCC intervention. *Compare, e.g.*, Statement of Tom Wheeler, November 2015 Open Commission Meeting Press Conference, http://fcc.us/1XhtV4X at 47:27-47:42 (stating, with respect to T-Mobile's Binge On offering, that "we said that we were pro-competition and pro-innovation. Clearly this meets both of those criteria. It's highly innovative and highly competitive"), *with* Letter from Roger Sherman, Bureau Chief, Wireless Telecommunications Bureau, to Kathleen Ham, Senior Vice

(continued….)

And consider just how radical the Commission's approach is. Paid interconnection arrangements have long been commonplace in the Internet economy. And without government regulation, prices have fallen dramatically. Indeed, transit rates have fallen by more than 99% over the past two decades.

Or consider usage-based pricing. A fundamental tenet of our free-market economy is that you will often have to pay more to purchase more of a good or service. Not every restaurant is an all-you-can-eat buffet. The more clothes you buy at a department store, the more that you have to pay. And this is even true with respect to basic necessities. The more water or electricity that you use at home, the higher your monthly bill will be.

But today, the Commission signals the beginning of the end of this concept in the online world. And I suppose it has a populist appeal. At first, many consumers are happy to learn that they can use as much data as they want without paying more. Indeed, I suspect that people would be excited at first if they were told that the government was mandating that grocery stores charge customers a single fee and allow them to leave with as much as they could carry away. But soon, many would feel the burn once they saw the significantly higher price of admission—especially those who didn't want to buy much food.

And the same is true with respect to broadband. When the government forbids usage-based pricing, it is requiring Americans who use less data to subsidize those who use more data. The elderly woman on a fixed income who uses the Internet to exchange e-mail messages with her grandchildren must pay more so that an affluent family watching online HD video for many hours each day can pay less. This isn't fair, and it certainly isn't progressive.

Indeed, the record makes clear that online video places enormous demands upon the networks of Charter and Time Warner Cable and increases their capital costs. Who should bear those costs? The Commission's view is now that all customers must do so equally. As a result, the natural response of ISPs will be to increase prices on *all* consumers in order to amortize the cost of serving a bandwidth-hungry few. This is the paradigmatic case of the 99% subsidizing the 1%.

My view is that decisions like this are best made by the private sector. Some companies may choose to offer usage-based pricing; others may not. But the government shouldn't rule out all but one business model. It is certainly not *per se* unreasonable for an ISP to ask high-bandwidth users to shoulder more of the burden than low-bandwidth users.

Turning to other conditions set forth in the *Order*, the Commission doesn't bother to make any effort to explain how its regulatory grab-bag has anything to do with addressing any transaction-specific harms. In fact, it virtually revels in the disconnect. For example, in one paragraph, the Commission dismisses Charter's proposed low-income broadband program as not being "a transaction-specific benefit."[3] But in the very next paragraph, the Commission proposes to impose its own low-income broadband as a condition of the transaction![4]

And what about the program's specifics? The Commission requires Charter to offer a 30 Mbps service for $14.99 a month to qualifying low-income households. But just last year, the Commission required AT&T to offer a 10 Mbps service for $10.00 a month. And earlier this year, the Commission decided that our Lifeline program should only support 10 Mbps services. Where do these numbers come

(Continued from previous page)
President, Government Affairs, T-Mobile (Dec. 16, 2015) (stating that "concerns have been expressed about the Binge On program" and initiating FCC investigation into Binge On in order "to understand how this service relates to the Commission's" net neutrality rules), *available at* https://assets.documentcloud.org/documents/2648554/Letter-to-Kathleen-Ham.pdf.

[3] *Order* at para. 452.

[4] *Order* at para. 453.

from? Who knows? There is no rhyme or reason. They just reflect whatever tribute a Commissioner (or three) is inclined to demand at a particular point in time for approving a merger.

And what about the build-out requirements? What do they have to do with the transaction? Nothing. The Commission simply finds that "the public would benefit from increased residential buildout, post transaction" and decrees that Charter shall "pass, deploy, and offer" broadband service "capable of providing at least a 60 Mbps download speed to at least two million additional mass market customer locations within five years of closing" and that at least one million of these new customer locations must be "outside of its footprint where any provider other than New Charter offers 25 Mbps or faster" broadband service.[5]

Where do these numbers come from? Why two million new locations, as opposed to one million or three million? Again, there is no explanation. But that isn't surprising, for there is none—at least nothing that has any rational connection with the merits of this transaction or public policy. Rather, the figures simply constitute the most that the Commission could demand of Charter before the company would walk away from this merger.

Moreover, the build-out requirements highlight the *Order*'s incoherence. On the one hand, the Commission imposes a number of conditions supposedly due to concerns about harms that will result from Charter's post-merger size. But on the other hand, the Commission imposes build-out requirements that will have the inevitable effect of making Charter larger than it otherwise would be! And unless Charter chooses to exclusively overbuild areas served by Comcast, which I find highly unlikely, Charter's increased broadband market share will come at the expense of smaller competitors. So one of the Commission's answers to the harms caused by increased concentration is . . . to further increase concentration? It is as if the Commission's left hand doesn't know what its far-left hand is doing.

To be clear, I don't blame Charter for agreeing to all of these conditions. The Commission had the company over a barrel, and Charter decided that it was in its interest to accede to the Commission's demands. As a Commissioner, it's not my place to second-guess a company's assessment of its self-interest.

But it *is* my job to safeguard the public interest. And the fallout from this *Order* will not be limited to Charter alone. Indeed, the negative externalities of this *Order* are the primary reason why the Commission is adopting it.

This *Order* moves the Commission one step closer to an across-the-board ban on usage-based pricing. This *Order* moves the Commission one step closer to an across-the-board ban on paid peering. This *Order* moves the Commission one more step down the path of micromanaging where, when, and how ISPs deploy infrastructure. And this *Order* is another significant step away from the free-market policies that Democrat- and Republican-led FCCs alike applied for decades—policies that made our Internet economy the envy of the world.

Some might say that all of this couldn't possibly happen. But these are the same people who confidently predicted that the Commission wouldn't classify broadband Internet access service as a Title II, common-carrier service. These are the same people who said, after the *Title II Order* was adopted, that zero-rating plans would be safe from Commission attack. And these are the same people who assured us that the Commission had no interest in regulating broadband rates. In short, recent history has shown that when it comes to Internet regulation, the conventional wisdom and agency assurances have been quite wrong.

So for me, this *Order* is a bridge too far. The Commission is not approving this merger because it believes that the merger is in the public interest—that is, because the inherent benefits outweigh the

[5] *Order* at paras. 387–88.

harms. Rather, it is approving the merger because it presents an opportunity for the Commission to check more items off its regulatory wish list.

This brings me to a final point, one I've pondered for some time. The brazenness of this *Order* raises a serious question: What should be the FCC's role in reviewing transactions? This is how I currently see it, informed by years of experience both at the U.S. Department of Justice's Antitrust Division (where I worked on mergers and acquisitions) and at the Federal Communications Commission.

Here's how things work at the Department of Justice. Parties submit pre-merger notification documents pursuant to the Hart-Scott-Rodino (HSR) Act. Of particular importance, they submit what are known in the antitrust world as "4(c)" and "4(d)" documents—materials that shed light on how the merging parties themselves see the effects of the proposed deal. The Division staff review the HSR documents, especially the 4(c) and 4(d) documents, and determine whether more searching scrutiny is required. If it is, the Division issues what is known as a "second request," a more detailed request for documents. Ultimately, the Division staff analyze all the evidence and soberly detail the aspects of a transaction. What is the product or service market? What is the geographic market? Who are the competitors? What are their market shares? What effect would consummation of the transaction have on competition? What are the competitive harms? Are there efficiencies that might be recognized? Could the combined entity engage in vertical restraints of trade? Are any divestitures necessary in instances of horizontal overlap? And so on. The career staff determine what the resolution should be and make a recommendation to the Assistant Attorney General of the Antitrust Division. Based on that recommendation, the Assistant Attorney General then decides upon the Justice Department's approach to the deal. And the Justice Department is accountable to the courts should it seek to block a merger or impose conditions. This professional process has been well-established for decades.

Here's how things work at the Federal Communications Commission. Parties file the requisite notification papers. Then, they wait for the FCC to start the 180-day "shot clock," which kicks off the agency's review and sets the aspirational deadline for decision. (Sometimes, the parties feel compelled to hire a politically connected insider to help get that clock started.[6]) Once the shot clock starts, the staff's review begins. Unlike at the Department of Justice, the process is politicized from the beginning; the FCC staff report to the Chairman's Office and are often overseen directly by someone loyal to the Chairman's Office. Separately, and more significantly, the parties are required to negotiate behind closed doors with the Chairman's Office or Office of General Counsel (which, again, reports directly to the Chairman's Office) on conditions to be attached to the deal. Months can go by without any transparency, internal or external, regarding the ornaments that the Chairman's Office is seeking to place on the Christmas tree. Even Commissioners have no insight as a matter of right, and parties have told me that they are explicitly warned not to tell anyone else at the Commission about the conditions the Chairman's Office is seeking. And when it comes to those conditions, there is no need for them to be relevant to the merger ("merger-specific," in antitrust parlance). Indeed, that's often why the Commission blows so far past the ill-named "shot clock"; it takes time to get the parties to "voluntarily" submit to the forced extraction of every ounce of extraneous "value." Once the Chairman's Office agrees with the parties on what the resolution will be, FCC staff write an order implementing the Chairman's deal. That order is then sent to other Commissioners' offices, with the Chairman's favorable vote sending the unmistakable message that the order is a *fait accompli*—take it or leave it, with perhaps a little latitude to accommodate a few more goodies requested by a member of the majority.

Given how badly broken the current merger review process has become at the FCC—how rife it is with fact-free, dilatory, politically motivated, non-transparent decision-making—I believe Congress should implement major reforms of the procedural and/or substantive rules governing the Commission's assessment of transactions. Either the FCC should employ something akin to the Antitrust Division's

[6] *See, e.g.*, http://apps.fcc.gov/ecfs/document/view?id=60001120867.

process and standard of review (which, of course, could yield an objection of redundancy) or its authority in this area should be significantly restricted (no serious, knowledgeable observer will maintain that the professional staff at the Justice Department or Federal Trade Commission do not or cannot adequately protect the public interest). Whatever the legislature's preferred approach, the status quo at the FCC when it comes to transactional review cannot continue. The ideologically inspired extortion has to end.

In sum, I do not believe that the adoption of this *Order* is in the interest of the American people. I therefore dissent.

STATEMENT OF
COMMISSIONER MICHAEL P. O'RIELLY
APPROVING IN PART, CONCURRING IN PART, AND DISSENTING IN PART

Re: *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 15-149.

The item before us approves the applications of Charter Communications, Time Warner Communications, and Advance/Newhouse Partnership (also known as Bright House) to transfer Commission licenses and authorizations, subject to conditions. After reading the item, conducting ex parte meetings, and reviewing the record, I vote to approve the transfer of control. This notwithstanding, I concur on certain conditions imposed on the combined entity and reject others that either exceed the Commission's authority or the bounds of the applications before us.

At its core, the idea to merge two or more firms is generally a business decision. A company that has been risking shareholder or private capital to produce a good or a service to the American people may determine that economies of scale, strategic synergies or market realities justify or necessitate it pursuing the acquisition of another company or companies. After reaching a meeting of the minds among differing company leaders, the entities may be required to seek approval from regulators to complete the transaction. At the FCC, the "hook" is the requirement to obtain our consent to transfer licenses. That's when the real fun begins.

One would hope that, as stewards of the public trust, all federal regulators that oversee different aspects of American commerce would be held to certain standards and required to engage in reasoned decision making. Sadly, that is not always the case, as the application-specific review process envisioned by Congress bears little resemblance to the all-encompassing merger review now employed by the Commission in its never-ending attempt to gain concessions from the applicants in order to promote certain overarching social policies and set "precedent" whenever presented with such an opportunity. And the larger the size and profile of a merger, the bigger the opportunity.

In this specific case, the Commission has certain responsibilities under the statute. In particular, we are charged with reviewing the transfer of wireless licenses (i.e., cable television relay service licenses, satellite communications licenses, and private wireless licenses) and section 214 authorizations to ensure that the transfer is in the "public interest, convenience, and necessity."[1] This review may include, under section 310(d), whether the combined entity has the citizenship, character, technical, financial, and other qualifications to operate the licenses.[2] Here, the transfer of licenses and authorizations would not violate our rules and the new licensee, New Charter, seems adequately qualified to hold them under section 310 and other provisions.[3]

Over the years, however, the Commission has considered the potential impact of a merger on the local marketplace, and more specifically, competition within specified geographic and product markets, to determine whether a transaction serves the public interest. Others argue that this function should be left

[1] 47 U.S.C. § 310(d); *see also id.* § 214(a) (stating that the Commission must determine whether the acquisition is in the "public convenience and necessity.").

[2] *Id.* § 308(b).

[3] The amount of debt the merged company will maintain is a legitimate concern given the past experience with cable companies over-leveraging and allowing company plant to deteriorate. This concern, however, is not significant enough in this case to warrant the denial of these applications.

to the Department of Justice as part of its antitrust review.[4] Despite this legitimate debate, it would seem irrelevant, in this instance, because the three companies do not operate in the same markets today for video, telephony or broadband. In fact, there is de minimis overlap in service territories or local franchise footprints. As acknowledged in the item, "[a]s an initial matter, we note that because there is almost no overlap in the local competition distribution footprints of Charter, Time Warner, and Bright House, the proposed transaction does not result in any direct reduction in local competition for video or BIAS."[5]

Having found no issues yet, the Commission turns to a questionable and non-statutorily-driven approach, examining the potential influence or future hypothetical incentives of New Charter based on the combined size, facilities owned or relationships held, and imposing conditions to "remedy" perceived "harms." This approach is typically reserved for the largest or most controversial transactions, highlighting that it is not a process required by law, but rather a Commission-driven exercise to use transactions as vehicles to accomplish policy goals that it could not achieve through rulemakings alone.

To achieve the desired results, the Commission determines that the combined company would have the ability to dictate favorable outcomes against other entities because of the merged company's leverage. Under almost every measurement, the entities that will combine to form New Charter would seem hard pressed to influence anything, especially considering the ever-changing services which they offer and markets in which they operate. However, for various reasons, the applicants offered a bevy of conditions to counter any potential "harm" from the merger. Rejecting most of the applicants' arguments on the benefits of the merger itself, the staff recommendation rests mostly on these additional conditions, as modified by staff, and their enforcement going forward as justification for approving the applications. Indeed, some of the conditions are not even merger-specific, much less license-specific.

In most circumstances, I find it difficult to argue against merger conditions that a company seeks to have imposed on itself. While it can be debated as to whether voluntary commitments are truly voluntary in light of the Commission's process, if a company is willing to constrain itself, and even if the Commission makes modifications that the company finds agreeable, I am hard pressed to see a need to stop these from going forward, even if I strenuously disagree with the reasoning, arguments, legal justification, wording, substantive direction or outcome. To put it more simply, if a company wants to shoot itself in the metaphorical foot, who am I to stop it from doing so? As such, I concur with the conditions contained in the item to the extent that they are agreed upon by the applicants, except as outlined in the subsequent paragraphs.

Where I disagree and cannot acquiesce are those circumstances when conditions impact a merged company in a way that harms or undermines its ability to serve subscribers, or the Commission seeks to establish new precedent that is broader in scope than the application before it. Moreover, I cannot support conditions that are not transaction-related. Using the same metaphor, a company shooting its own foot becomes extremely problematic to me if it leads to the Commission taking the gun and inflicting similar wounds on other companies.

Examining the proposed conditions in detail and reading the corresponding reasoning for each condition reveals some very disturbing directions. First, the item conjures up the threat that New Charter could impose data caps and usage-based pricing to harm online video distributors, more commonly referred to as over-the-top video providers. While the validity and length of the outright prohibition of

[4] It is fairly surprising and disappointing to see the Commission represent that it has worked hand and glove with the Department of Justice on the merger application. Such a "partnership" is nowhere to be found in law. In fact, the creation of the Commission as an independent agency allows it to act outside of the bureaucratic entanglement of any current Administration. To coordinate the review process in order to divide up the bounty of concessions from the applicant is not proper or appropriate. Perhaps this should be expected when the personnel used by the Commission to head its merger review team is on loan from the Justice Department.

[5] *See supra* ¶72.

data caps and usage based pricing for seven years is highly dubious, I disagree with the notion and verbiage that these pricing mechanisms should be deemed problematic in other circumstances. And yet, the item repeatedly condemns such practices for the industry as a whole.[6] The Commission has scant evidence that New Charter could or would implement data caps or usage-based pricing, especially since none of the applicants utilize them now. The bigger issue is that the Commission seems to suggest that any large cable company should be prevented from doing the same, an answer to a question which the record was not designed to resolve. Therefore, any statements or conclusions to that effect are overblown and inappropriate. Whether one likes data caps and usage-based pricing in theory is irrelevant, and the Commission's dicta has no place in this proceeding.

Turning to the creation of New Charter's "Low-Income Broadband Offerings," the item is refreshingly honest in admitting that this condition has nothing to do with the transaction itself. In fact, the item states, "We find that Charter's proposed low-income broadband program is not a transaction-specific benefit. We agree with DISH that any of the Applicants could offer a low-income broadband program absent the transaction. Indeed, Bright House already offers such a program."[7] Nonetheless, the item then ups the ante by increasing the enrollment targets and enforcement mechanisms. Ultimately, it is added as a condition for the merger approval on the theory that it is a counterweight to the public interest harms of the transaction. But these changes don't make the program any more relevant to the transaction than it was when the applicants made the initial offer, nor does the item even attempt to justify this as a remedy to any transaction-specific "harm." As such, it is merely the price of getting a merger approved and a giveaway to satisfy a political goal of some people at the expense of everyone else.[8]

It is highly inappropriate for the Commission to include items or conditions that are not part of the transaction itself as a price for approval. In fact, the Commission has made a point of avoiding the practice in some prior transactions, even appearing critical of outside parties that sought unrelated concessions.[9] I truly hope that this is an aberration – perhaps an attempt to make the most of the last major transaction to come before the current Commission.

But if such brazen politics are going to rule the day, why not just ask for cold hard cash? Would $300 million act as a sufficient counterweight? Can we establish a special bank account for the Commission to collect such payoffs? If a company offered to build homeless shelters or donate fire trucks to every local franchise authority, would such offers count as counterweights too? Is there any

[6] Examples of such broadly applicable language include: "BIAS providers such as New Charter can hinder third-party online video competition through practices such as data caps, usage-based pricing (UBP), and discriminatory stand-alone residential BIAS pricing." (*see supra* ¶ 48); "We find that the record in this proceeding demonstrates that data caps and UBP can harm online video completion." (*see supra* ¶ 84); "We find that by their very nature, the data caps and UBP in use by wired BIAS providers currently significantly and chiefly affect online video traffic." (*see supra* ¶ 85).

[7] *See supra* ¶ 452.

[8] *Id*. ("Nevertheless, we find that the public would benefit from programs designed to bridge the digital divide.").

[9] *Applications of AT&T Inc. and DirecTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-90, Memorandum Opinion & Order, 30 FCC Rcd 9131, 9203 ¶ 191 (2015) (stating, in response to allegations of potential harms, that "[t]o the extent that there potentially is an industry-wide public interest harm associated with volume discounts as such, it has not been established on the record before us, and it would be beyond the scope of this proceeding in any event as it is not transaction specific."); *id*. at 9229 ¶ 253 (finding that concerns about the set-top box market "raise broader regulatory policy questions that are more appropriately addressed in the rulemaking context" and that, "[g]iven the lack of a transaction-related harm, . . . [the Commission] decline[d] to adopt the conditions requested by the commenters or to take other action in this context."). Similarly, the Commission went out of its way to argue that an offer made by an applicant to deploy fixed wireless local loop service to 13 million households in mostly rural areas within four years was not shown to be transaction specific. *See id*. at 9272-9273 ¶¶ 370-375.

limitation to the counterweight calculation? Once delinked from the transaction itself, such conditions reside somewhere in the space between absurdity and corruption.

Moreover, non-transaction-specific conditions such as these actually cause harm to the applicant's existing subscribers. Specifically, this new program will result in increases in the cost of cable and broadband service for every current cable subscriber of the three companies, especially impactful for those living just above the poverty line. What an amazing result: the item actually makes service more expensive for those that tend to rely on certain services, such as video services, to the greatest degree. I object.

Similarly, the build-out requirement conditions are equally objectionable under the same premise. This requirement harms the existing subscribers of both New Charter and the other provider(s) to be overbuilt. In particular, the item would force the merged company to initiate service for at least one million residents in areas where another broadband provider already exists and is offering broadband service above a certain speed. There are so many problems with this concocted "remedy" but I will focus on just a few.

First, it diverts capital that the merged company could use to improve service to their existing customers or expand service to households without advanced services, harming these consumers. In effect, current subscribers are going to be forced to pay for the social experiment of government-ordered competition.

Second, it artificially introduces competition into a nearby market of another provider at the expense of that other provider's customers. Absent this mandated condition, the market conditions would determine whether the merged company entered those markets, meaning that the condition will force the existing provider to divert capital from deployment and other pursuits in order to fight a governmentally-mandated competitor through such things as increased marketing costs.

Third, it burdens New Charter with greater leverage and debt costs, potentially threatening the viability of the company, to pay for building out facilities to these areas. Unless this expansion is a smashing success, it unnecessarily puts at risk the capital of company shareholders, which tend to be pension holders and average consumers through one investment vehicle or another.

Having had the audacity to add so many unnecessary, harmful and/or unrelated conditions to the approval of the merger, the Commission does a further injustice by delegating decisions about the length of certain conditions to staff. Specifically, the Wireline Competition Bureau would be authorized to determine whether the interconnection regime and the data cap and usage-based pricing conditions can be sunset after five years, instead of the designated seven. If these conditions are so vital – to the degree that without them the merger can't be approved – how can the decision whether to maintain them be delegated to staff as if it were a commonplace waiver request or license modification? It is not the proper role of the staff of any bureau to decide major policy outcomes such as this.

Further, this Commission's excessive abuse of delegated authority undermines our credibility and circumvents the intention of Congress. At the same time, it weakens the legitimacy of the conditions and places even more power in the hands of the Chairman, who effectively oversees each and every bureau decision. Why does the current FCC leadership find it necessary to usurp the duly appointed rights of Commissioners that will preside here five years from now? It should be no surprise that I object to this illogical and unwise delegation.

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Under the conditions imposed by this Order, New Charter will be carrying a daunting regulatory load from its inception. In an ostensibly free-market economy, no enterprise should ever be hamstrung at the starting line in such a manner, but it is my hope that the company will be able to overcome the onerous burden laid on by a command-and-control Commission and deliver innovative new offerings to Americans. I look forward to seeing what develops.