DEPARTMENT OF AUDITS AND ACCOUNTS

270 Washington Street, S.W., Suite 1-156

Atlanta, Georgia 30334-8400

GREG S. GRIFFIN
STATE AUDITOR
(404) 656-2174

February 12, 2015

Honorable Jay Roberts, Chairman
Transportation Committee
State Capitol, Room 218
Atlanta, Georgia 30334

SUBJECT: Fiscal Note
House Bill 170 (LC 34 4437)

Dear Chairman Roberts:

This bill, which is known as the Transportation Funding Act of 2015, changes the motor fuels sales tax exemption, changes motor fuel excise taxes, and repeals the prepaid portion of the tax. Part II Section 2 redefines alternative fuel vehicles and creates a separate fee for said vehicles. Part IV Section 4-2 extends the state sales tax motor fuel tax exemption to the full state sales tax. Part IV Section 4-2 (d) and sections 4-3 through 4-6 disallows any new local option sales taxes to be applied to motor fuels. Part IV Section 4-7 changes the excise rate applied to motor fuel from 7.5 cents per gallon to 29.2 cents per gallon for gasoline and 33 cents per gallon for diesel. The changes would be effective July 1, 2015. The bill has no sunset provision.

Effect on State Revenues

According to analysis by the Georgia State University Fiscal Research Center, the additional revenue to the State from this bill is estimated to range from a low of $703.3 million in fiscal year (FY) 2016 to a high of $1.046 billion in FY 2020. Note due to the inherent uncertainty involved in the estimation of motor fuel prices in future years, these estimates have a high degree of uncertainty. Details of the analysis by the Fiscal Research Center are included in the Appendix to this fiscal note.

Table 1 shows the total state transportation funding available as a result of this bill. This includes the state baseline motor fuel revenue as well as the new motor fuel revenue generated by the bill.

Table 1. Total Transportation Funding to the State Resulting from This Bill
in millions $/State Fiscal Years

	2016	2017	2018	2019	2020
Low Growth	$1,779.4	$1,905.7	$1,976.4	$2,049.9	$2,125.3
High Growth	$1,792.9	$1,948.3	$2,035.6	$2,127.1	$2,222.3

Part 2 sections 2-1 and 2-2 changes the definition of alternative fuel vehicles and sets registration fees for said vehicles. Alternative fuel vehicles would be only those powered solely by electricity, natural gas, and propane. A registration fee of $200 would be charged for noncommercial vehicles and $300 for commercial vehicles. These fees are to be adjusted annually by the change in the construction price beginning January 1, 2016. Data from the Georgia Department of Revenue (DOR), the Georgia Statistics System and the Energy Information Administration (EIA) was used to estimate the number of qualifying vehicles under the new definition.

The construction index annual average increase was calculated from 2004-2013. As those years include the drop in costs due to the great recession, the full average is used in the low growth estimates while the average annual change, with the low year of 2009 removed, is used to estimate the high growth amount. Table 2 shows the additional estimated revenue to the State from Part 2 section 2-2 of this bill.

Table 2. Additional Revenue to the State from Part 2 Section 2-2
in millions $/State Fiscal Years

	2016	2017	2018	2019	2020
Low Growth	$1.8	$4.1	$5.1	$6.2	$7.3
High Growth	$1.9	$4.5	$6.1	$8.0	$10.2

Part IV Section 4-2 (d) and sections 4-3 through 4-6 would disallow any new local option sales taxes to be applied to motor fuels. However some local sales taxes will not expire, such as the LOST and MARTA, thus adjustments are made to include these ongoing local sales taxes in the prices of motor fuel (see Appendix).

Part IV Section 4-7 changes the excise tax from 7.5 cents per gallon for gas and diesel to 29.2 cents per gallon for gas and 33 cents per gallon for diesel. The new excise tax rates will change annually based on the sum of the year over year changes of two metrics, the construction cost index and fleet year over year change in miles per gallon as estimated by DOR. An additional adjustment factor is also included, which accounts for how the changed tax structure and resultant change in International Fuel Tax Association (IFTA) system credits will affect the diesel fuel purchases of

long haul truckers. Table 3 shows the additional State revenue raised over the baseline forecasts due to section 4-7.

Table 3. Additional Revenue to the State from Part IV Section 4-7
in millions $/State Fiscal Years

	2016	2017	2018	2019	2020
Low Fuel Prices	$701.5	$837.8	$902.5	$969.7	$1,038.8
High Fuel Prices	$714.9	$855.5	$906.0	$958.3	$1,011.5

Note the amounts in Table 3 net out a shift from general fund revenue, raised by the "fourth penny" which can currently be used to fund other types of government spending, to dedicated transportation fund revenue. The amount of this shift is on average $158.6 million annually in the low fuel cost scenario and $171.6 million in the high fuel cost scenario. This increases the amount of funds available for transportation funding, resulting in additional transportation funding of $1.054 billion annually on average in the low fuel cost scenario and $1.067 billion annually on average in the high fuel cost scenario. Table 4 shows the total additional revenue to the State of this bill.

Table 4. Total Additional Revenue to the State
in millions $/State Fiscal Years

	2016	2017	2018	2019	2020
Low Fuel Prices	$703.3	$841.5	$906.3	$973.7	$1,042.9
High Fuel Prices	$716.7	$859.1	$909.8	$962.2	$1,015.4

Effect on Local Government Revenue

Note that local revenue impacts are not estimated in the analysis above. This bill would end local sales taxes on motor fuel as they expire. This would be expected to reduce local revenues over time as these authorized sales taxes expire. However, the bill allows local governments to impose a cents per gallon tax on motor fuel that would reduce these net impacts. Estimated impacts on these effects are in development.

Detailed Analysis

Details of the analysis by the Fiscal Research Center are included in the Appendix to this fiscal note.

Sincerely,

Greg S. Griffin
State Auditor

Teresa A. MacCartney, Director
Office of Planning and Budget

GSG/TAM/ek/cb

Enclosure: Appendix – Details of Analysis by Fiscal Research Center

This bill, which is known as the Transportation Funding Act of 2015, changes the motor fuels sales tax exemption, changes motor fuel excise rates, and repeals the prepaid portion of the tax. Part II Section 2 redefines alternative fuel vehicles and creates a separate fee for said vehicles. Part IV Section 4-2 extends the state sales tax motor fuel tax exemption to the full state sales tax. Part IV Section 4-2 (d) and sections 4-3 through 4-6 would disallow any new local option sales taxes to be applied to motor fuels. Part IV Section 4-7 changes the excise rate applied to motor fuel from 7.5 cents per gallon to 29.2 cents per gallon for gasoline and 33 cents per gallon for diesel. The changes would be effective July 1, 2015. The bill has no sunset provision.

Baseline Estimates

To estimate the State revenue effects of this bill, the estimates of future motor fuel costs from the Energy Information Association (EIA) were used as well as their assumptions on growth of fuel consumption. To estimate the revenue effects of the excise tax increases and other changes, two baseline revenue projections are estimated: a low fuel price revenue estimate and a high fuel price revenue estimate.

The EIA publishes a near-term outlook for fuel prices that is released monthly as well as a long-term outlook that is released annually. The price estimates of gasoline and diesel fuel for the calendar years 2015 and 2016 are taken from the short-term outlook published in January 2015, and take into account the recent large drops in oil prices. The EIA forecasts the average price of regular gasoline in 2015 to be $2.33, rising to $2.72 in 2016. This 2016 price forecast, adjusted downward for the current 5 cents per gallon difference in the price of gas nationally and in Georgia, is used as the base year price for both the low price and the high price baseline projections.

The prices of motor fuel for the years 2017-2023 are estimated based on the data in the annual long-term outlook published in 2014, before the recent drop in oil prices. This annual report makes a range of long-run forecasts of gasoline and diesel prices, including a reference forecast as well as low and high price scenarios around the reference forecast. For this estimate, due to the steep drop in oil prices after the report was published, the low price forecast is used to project the low fuel price scenario while the reference forecast is used to project the high fuel price scenario.

In its low price forecast, EIA projects the price of gasoline in 2020 at $2.88 while the high price scenario (again, EIA's reference forecast) forecasts a 2020 price of $3.49. These low and high 2020 price forecasts are also adjusted down by the current 5 cents per gallon difference between Georgia and national average prices. To fill in the missing years, the annual average rate of price growth implicit in these 2016 to 2020 price forecasts is used for all years. For the low fuel price scenario, this growth rate is approximately 1.47 percent while for the high price scenario the growth rate is approximately 6.54 percent. For diesel, the same methods are used to project prices.

The EIA long-range reference forecast also projected annual growth rate for fuel consumption from 2012 through 2020 and beyond. The average projected growth rate for gasoline consumption through 2020 was -1.23 percent per annum in the reference forecast (the high fuel price case

herein) and -0.75 percent in the low fuel price case. For diesel, the 2012-2020 average consumption growth rates were projected to be 1.56 percent in the reference (high) case and 1.60 percent in the low price case. These longer-run average growth rates were applied to estimated 2013 consumption of gasoline and diesel fuel in Georgia, as reported by the Federal Highway Administration.

Table A1 shows the low fuel price baseline projections, including projected prices per gallon of gasoline and diesel as well as the estimated calendar year revenue at current levels of excise taxation, 7.5 cents per gallon plus additional state revenue from the prepaid portion. Table A2 provides the same baseline forecast information under the high price scenario.

Appendix Table A1.
Low Price Baseline Motor Fuel Prices, Consumption, and Excise Tax Revenue
in millions $/Calendar Years

Calendar year	2016	2017	2018	2019	2020
EIA estimated gas prices ($/gal)	$2.67	$2.71	$2.75	$2.79	$2.83
EIA estimated diesel prices ($/gal)	$3.22	$3.24	$3.26	$3.29	$3.31
Estimated Gas Purchase (in millions of gallons)	4,714	4,678	4,643	4,608	4,573
Estimated Diesel Purchase (in millions of gallons)	1,309	1,330	1,352	1,373	1,395
Estimated Revenue At Current Tax Structure					
total state gas tax	$696.5	$696.3	$696.3	$696.2	$696.3
total state diesel tax	$213.7	$217.9	$222.2	$226.7	$231.2
Total Baseline Motor Fuel Tax Revenue	$910.1	$914.3	$918.5	$922.9	$927.4

Appendix Table A2.
High Price Baseline Motor Fuel Prices, Consumption, and Excise Tax Revenue
in millions $/Calendar Years

Calendar year	2016	2017	2018	2019	2020
EIA estimated gas prices	$2.67	$2.84	$3.03	$3.23	$3.44
EIA estimated diesel prices	$3.22	$3.43	$3.65	$3.88	$4.13
Estimated Gas Purchase (in millions of gallons)	4,714	4,656	4,598	4,542	4,486
Estimated Diesel Purchase (in millions of gallons)	1,309	1,330	1,351	1,372	1,393
Estimated Revenue At Current Tax Structure					
total state gas tax	$696.5	$710.7	$725.9	$742.2	$759.7
total state diesel tax	$213.7	$224.7	$236.6	$249.2	$262.9
Total Baseline Excise Motor Fuel Tax Revenue	$910.1	$935.4	$962.5	$991.5	$1,022.5

Part II

Part II sections 2-1 and 2-2 change the definition of alternative fuel vehicles and set registration fees for said vehicles. Alternative fuel vehicles would be only those powered solely by electricity, natural gas, and propane. A registration fee of $200 would be charged for noncommercial vehicles and $300 for commercial vehicles. These fees are to be adjusted annually by the change in the construction price index, beginning January 1, 2016. (Note that the actual wording of the bill is somewhat unclear in that it mentions only the Construction Price Index published by the United States Census Bureau. This is an index that measures the costs of housing construction, it is not the same as the Federal Highway Construction index that measures changes in the prices of highway construction. Also in this section there is no baseline year given. Thus it is assumed that calendar year 2015 is the baseline).

Data from the Georgia Department of Revenue (DOR) vehicles registered in Georgia solely powered by electricity, natural gas, or propane was used to estimate the number of vehicles subject to the alternative fuel vehicle fee as well as the growth rate. As of 2014, DOR had 16,304 cars and light duty trucks registered in Georgia that were powered solely by electricity, natural gas or propane. Note the growth rate for zero emission vehicles is quite high, estimated to be 45 percent in 2015 in the high growth scenario and falling to 20 percent by 2020. These high growth rates are assumed to be partially due to the state zero emission vehicle tax credit and these estimates

reflect it remaining in place. Growth rates for natural gas and propane vehicles are estimated to be lower, six percent, in the high growth scenario. Some additional adjustments were needed to determine commercial trucks and buses. Thus EIA data was used that has detailed counts of these vehicles nationally for 2012. Georgia data for the number of registered cars and trucks comes from the Georgia statistics system. Data from the EIA was used to estimate the share of commercial trucks.

EIA and DOR only list light duty trucks, but other trucks and buses would also be subject to the commercial alternative fuel vehicle fee. Data on the number of buses registered in Georgia is available from the Georgia statistics system. The natural gas association estimates that 20 percent of all new buses in transit services run on compressed natural gas (CNG). Very few other types of buses run on CNG. MARTA has about 500 buses, which represents about 10 percent of the buses in Fulton County. It is assumed that of all registered buses in the state, 10 percent are transit buses and 20 percent of those run on CNG. This generates an estimate of roughly 820 CNG buses in the state. Data on the number of alternative fuel trucks that are not considered light duty was not readily available. Thus it is assumed that there is the same number of these type trucks as buses. The housing construction index annual average increase was calculated from 2004-2013. As those years include the drop in costs due to the great recession, the full average is used in the low growth estimates while the average change with the low year of 2009 removed is used to estimate the high growth range.

Part III Section 3-1

This section would seem to limit the Governor's ability to freeze the prepaid portion of the motor fuel tax. However, in section 4-8 of the bill, the whole prepaid code section OCGA 48-9-14 is repealed. This Section is deemed to have no revenue effects. Note local governments will still be imposing local sales taxes on motor fuel and will continue to rely on DOR to set the appropriate price for the tax to be applied to based on this code section

Part IV Sections 4-1 and 4-2

This section redefines transportation purposes to include the following: roads, bridges, public transit, rails, airports, buses, seaports, and all accompanying infrastructure and services necessary to provide access to these transportation facilities. This section is relevant to local governments but has no state revenue effects.

Part IV Section 4-2 extends the state sales tax motor fuel tax exemption to the full state sales tax and removes the "fourth penny" from the general fund.

Part IV Section 4-2 (d) and sections 4-3 through 4-6 would disallow any new local option sales taxes to be applied to motor fuels. However, some local sales taxes will not expire, such as the LOST and MARTA taxes; thus adjustments are made to include these ongoing local sales taxes in the prices of motor fuel. To make these adjustments, the top 30 counties in motor fuel sales were examined for FY 2014, which represent 73 percent of all diesel sold and 76 percent of all gas.

Based on the data from these counties, a weighted average tax rate was estimated for those counties that will still maintain a 2 percent and 1 percent tax rate due to local option sales taxes that will not expire. For gas this resulted in 42 percent of total state consumption that is taxed at a rate of 1.5 percent without expiration. For diesel this resulted in 55 percent of total state consumption that is taxed at a rate of 1.25 percent without expiration. These rates were converted to a prepaid amount consistent with procedures used in the baseline estimates. The remaining shares of gas and diesel taxed by local option sales taxes are assumed to expire at an equal annual rate over 4 years. This rate was also converted to a prepaid amount consistent with procedures used in the baseline estimates and goes to zero by calendar year 2019. The additional impacts of these sections on local government revenue will be estimated in a later note.

Part IV Section 4-7

Section 4-7 changes the excise tax from 7.5 cents per gallon for gas and diesel to 29.2 cents per gallons for gas and 33 cents per gallon for diesel. The excise tax rates will change based on the sum of the year over year changes of two metrics. The first is an index that is to be created by DOR and will be calculated in the following manner:

> Using 2014 as a base year, the department shall determine the average miles per gallon of all new vehicles registered in this state pursuant to Code Section 48-5C-1 using the average of combined miles per gallon published in the United States Department of Energy Fuel Economy Guide. Beginning on January 1, 2016, the department shall again calculate the average miles per gallon of all new vehicles registered in this state in 2015. Any percentage increase or decrease in fuel efficiency shall be multiplied by the excise tax rate to determine a preliminary excise tax rate.

The second is the Construction Price Index published by the United States Census Bureau, referred to earlier in the act. The excise tax will be adjusted in this manner every year with a new excise rate published at the beginning of each calendar year. As the DOR does not currently compute this change in Georgia fleet average fuel economy, data from the EIA was used. Average new vehicle miles per gallon for 2012 were 32.7 with the estimate for 2020 under low fuel price assumptions of 37.9 and with high fuel price assumptions of 38.6. These generate average annual growth rates of 1.85 percent of the low price fuel scenario and 2.10 percent for the high price fuel scenario. As was shown earlier, the construction price index average annual growth rate under a low growth scenario is estimated to be 2.10 percent and 2.82 percent under a high growth scenario. These growth rates above, are used to adjust the excise tax annually.

An additional adjustment factor is also included. Currently under Georgia's hybrid tax system, the state "fourth penny" and the local sales tax on motor fuel are not credited to long haul truckers under the IFTA system. Thus when IFTA participating trucks purchase diesel in Georgia, roughly 12 cents per gallon in these taxes does not get credited to the IFTA account. This can have the effect of making diesel more expensive in Georgia when compared to other states. By creating an excise-only motor fuel tax and extending the sales tax exemption on motor fuels to cover the full

state sales tax, at the state level all motor fuel taxes would be credited to IFTA. By not allowing local governments to apply a sales tax on motor fuels as their local option taxes expire and only allowing locals to replace them with excise taxes, much of the local tax revenue will also be captured in the IFTA system. This initial change in Georgia's motor fuel tax structure may create an incentive for long haul truckers to buy more motor fuel in Georgia.

To account for this change in behavior, data from DOR is used that tracks the gallons of IFTA-credited diesel fuel sold in Georgia in 2014 of 460.3 million gallons, accounting for roughly 36 percent of all diesel purchased in 2014. It is assumed that the current IFTA differential in Georgia credits of 12.2 cents is a price reduction in diesel due to the new excise tax structure. Using the elasticity for gas and diesel of 0.43, as is used in the baseline estimates, generates an additional 46.3 million gallons of diesel fuel purchased annually in Georgia. As the effective date of the law is July 1, 2015, this additional fuel sale is added half to 2015 and half to 2016. This is used in our low price fuel scenario. It is possible that long haul truckers have a higher price elasticity for diesel than the average diesel consumer, due to the large fuel capacity long haul trucks have, giving them greater choice as to where to fill up. To account for this, the elasticity is increased by 50 percent to 0.645, which increases the amount of diesel fuel purchased to 69.5 million gallons. This adjustment factor is added to the high fuel price scenario in the same manner as the low fuel price scenario.

DOR data indicate that the amount of payments made into the state for miles traveled without fuel purchased generally is offset by payments made by the state for extra fuel purchased in Georgia for miles driven out of state. Thus, the revenue effect is limited to the behavioral change induced by the change in tax structure. Note there are many things that can influence a truck driver's decision to purchase diesel, beside IFTA tax treatment. Thus these estimated price effects likely represent an upper bound. Also some local governments will continue to charge sales tax on diesel as some local option sales taxes do not expire, such as the LOST and MARTA taxes.

Note the amounts in Table A3 represent a shift from general fund revenue, raised by the "fourth penny" which can be used to fund other types of government spending, to dedicated transportation fund revenue. The amount of this shift of the "fourth penny" is on average $158.6 million annually in the low fuel cost scenario and $171.6 million in the high fuel cost scenario. This increases the amount of funds available for transportation funding, resulting in additional transportation funding of $1.0536 billion annually on average in the low fuel cost scenario and $1.0670 billion annually on average in the high fuel cost scenario. See tables A3 and A4 for details.

Table A3.
Loss of General Fund Revenue to the State
in millions $/State Fiscal Years

	2016	2017	2018	2019	2020	5 Year Average
Low Fuel Prices	$167.8	$153.7	$155.4	$157.2	$159.0	$158.6
High Fuel Prices	$167.8	$157.5	$167.1	$177.4	$188.3	$171.6

Table A4.
Net Additional Transportation Revenue to the State
in millions $/State Fiscal Years

	2016	2017	2018	2019	2020	5 Year Average
Low Fuel Prices	$871.1	$995.5	$1,063.0	$1,133.1	$1,205.1	$1,053.6
High Fuel Prices	$884.7	$1,017.4	$1,079.2	$1,143.6	$1,209.9	$1,067.0