February 20, 2013

Mr. Thomas J. Jerger
Chairman
Florida-Based Property Insurers CEO Group, Inc.
7785 66th Street
Pinellas Park, FL 33781

Dear Tom:

The Florida-Based Property Insurers CEO Group, Inc. ("CEO Group" or "Group") engaged Rollins Analytics, Inc. ("Rollins") to provide analysis of the Florida Hurricane Catastrophe Fund ("Cat Fund" or "Fund"), specifically the estimated impact to statewide property insurance rate levels to consumers from proposals recently advanced in the Florida Senate Banking & Insurance Committee, and from alternative proposals under consideration by the Group. You also asked that we recount some recent historical changes to the Fund's parameters and provide perspective on their directional impact to consumer insurance rates. What follows is our result.

## Background – How Did We Get Here?

The Fund, in which participation is mandatory, provides a reinsurance-like reimbursement to insurers for losses from named hurricanes only, and with some restrictions on the types of property policies covered, notably the exclusion of commercial non-residential risks and exclusion of coverage for claims adjustment expenses.[1] By contrast, private reinsurance contracts cover all wind and tropical storm losses, include ALAE coverage, and usually cover all property risks. The Fund applies a per-storm retention (essentially a deductible), and offers a single aggregate payout limit per hurricane season, regardless of the number of storms.

The size of the retention and payout are set on an industrywide basis, but allocated to each insurer in its Fund contract, based on the size of the premium it pays. The premium itself is determined by applying a rate to each property that varies by location, construction, occupancy, and deductible, just as would a typical consumer's insurance premium. The sum of the Fund premiums for all properties in-force at June 30 of each year is the aggregate Fund premium for the insurer, and this number determines its share of the Fund for that year.[2] Insurers also pay a co-payment of 10%, 25%, or 55% of otherwise reimbursable losses at their option, with lower Fund rates if a higher co-payment is selected.

The Fund rates are annually ultimately set by its Trustees, consisting of Florida's Governor, Chief Financial Officer, and Attorney General, based on recommendations from the Fund's Chief Operating Officer, in turn based on a Ratemaking Formula Report produced by its contracted actuaries.

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[1] The Fund provides a 5% loading to each dollar of loss reimbursement in lieu of "allocated loss adjustment expense" or ALAE coverage. However, the mismatch between private reinsurance contracts and the Fund's provisions cause private insurers to buy significant additional reinsurance coverage that would not be necessary if the Fund would align its coverage with that of the reinsurance markets.

[2] Contract years run from June 1 to May 31, encompassing that year's June 30 reporting date.

Importantly, these rates are set far below the actuarially sound rate that would be required if the Fund's payout were funded by transferring the risk to private parties that would demand a market-clearing cost of capital, as opposed to current practice - funding much of its risk via its ability to assess nearly all future Florida insurance policyholders for as long as 30 years following a storm that produces a cash shortfall.[3]

Insurers are, with few exceptions, allowed to pass on all Fund costs to consumers as part of the standard rate regulation and filing process. Insurers also, in most cases, may pass on the "net cost" of private reinsurance that does not duplicate Fund coverage. An important operating principle is that the necessity to replace any reductions in Fund coverage with private reinsurance – that typically is much more expensive – creates an increase in cost structure and an increase in consumer rates. The value of the Fund to insurers, and the cost structure passed on to consumers, thus depends on four key parameters or "dials":

1. Retention per storm – determines how much private reinsurance must be bought "below" the Fund
2. Payout provided – determines how much, if any, private reinsurance must be bought "above" the Fund
3. Co-payment – determines how much private reinsurance must be bought "beside" the Fund
4. Premiums paid to Fund – determines part of the costs included in rate filings.[4]

This analysis will review the history of these parameters, and study the impact of some combinations of changes to these dials to consumers on an industrywide aggregate basis.

Notably, Citizens Property Insurance Corporation ("Citizens") participates in the Fund under the same rules as private insurers, and based on its recent size, currently has about a 38% share of the Fund. Changes to the Fund affect the "actuarially sound" rates of Citizens, but may not be fully passed through to consumers due to additional laws that apply only to Citizens (e.g. the 10% annual "glide path" limit on rate increases). Therefore, changes to the Fund may alter the competitive landscape of the consumer insurance market by changing the relative cost structure of both private insurers and Citizens.

The best single representation of the cost of the Fund to insurers is its Payout Multiple. In simple terms, this is how many dollars of coverage you get for each dollar you pay into the Fund. The reciprocal of this number is the rate per unit of Fund coverage, analogous to the "rate on line" in private reinsurance markets. This is the recent history of Fund retentions, payout limits, premiums, multiples and rates ($ billions):

| Contract Year | Fund Retention | Fund Limit | Premiums | Payout Multiple | Rate on Line |
|---|---|---|---|---|---|
| 2007-08 | $6.089 | $15.845 | $.951 | 16.6579 | 6.00% |
| 2008-09 | $6.878 | $16.530 | $.996 | 16.6011 | 6.02% |
| 2009-10 | $7.223 | $17.175 | $1.069 | 16.0625 | 6.23% |

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[3] The Fund has studied reinsuring some of its own risk in the past, but generally collects insufficient premiums to make this feasible.

[4] In recent years, the Fund premiums have constituted about 10-12% of the statewide property insurance premium base.

| 2010-11 | $7.385 | $17.000 | $1.111 | 15.3018 | 6.54% |
| 2011-12 | $7.369 | $17.000 | $1.145 | 14.8505 | 6.73% |
| 2012-13 | $7.389 | $17.000 | $1.263 | 13.4644 | 7.43% |

Changes over time sometimes reflect an annual update of an existing part of the Ratemaking Formula, but sometimes reflect legislation specifically changing Fund dials.  Note that several increases in insurer cost structure have occurred since 2007:

1.  Retention has increased by about $1.3 billion or 21%, reflecting several legislative "resets".
2.  Limit has been capped at $17 billion notwithstanding any growth in insured values at risk, reflecting legislative caps.
3.  Rates have increased by about $312 million or 24%, reflecting annual changes to catastrophe simulation models used as the core actuarial cost estimates in Fund rates, as well as 2009 legislation establishing a "rapid cash buildup factor" (RCBF), applied across the board to Fund rates, of 5% in 2009 increasing to 25% in 2013, then stabilizing afterward.

The co-pay options have remained stable and nearly all insurers select the 10% co-pay as it minimizes the necessity to buy "beside" reinsurance in the open market.  In addition, two other factors outside the mandatory Fund coverage have increased cost structure for some insurers:

•   An optional layer of coverage for Limited Apportionment Companies, generally small Florida-based insurers, with a retention of 30% of the insurer's surplus and limit of $10 million per insurer, offered for $5 million in Fund premium, expired in the 2012-13 contract year.
•   An optional program entitled Temporary Increase in Coverage Limit (TICL), that offered a higher payout limit in exchange for additional premium determined using the same Ratemaking Formula approach, began in 2007-08 at a potential size of $12 billion and has been phased out since 2009, offering only $2 billion in 2013-14, its last year.


**Actuarial Approach for Testing Current Law and Possible Fund Changes**

Rollins has developed an industrywide model for assessing the impact of changes (in isolation or combined) in the four Fund dials.  The workpapers for specific scenarios are referred as Exhibits, which include technical Notes for each line item and assumption.

The model includes consideration of several important factors that simply cannot be ignored in a credible approach to testing the impact to consumers of Fund changes:

1.  Exposure (insured value) growth over time, which impacts the Fund's retention path.[5]
2.  Proper calculation of the exhaust point of the Fund, inclusive of the 5% LAE benefit.
3.  Changes in the Fund's rates under its current ratemaking formula if its modeled losses change due to a change in retention, co-pay, or limit.[6]

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[5] Alternative scenarios for the retention are represented as negative exposure growth selections – this presentation does not affect the result.
[6] As the catastrophe model results underlying the Fund's rates are proprietary rather than transparent, we can estimate only roughly the impact of changes in modeled Fund losses. Further, estimates based on the "geometry"

4. Changes in the cost structure of private insurers due to substitution of more expensive private reinsurance "below" the Fund retention, "beside" the co-pay, and "above" the limit, especially assumptions about the prevailing market-clearing private reinsurance rates over time.[7]
5. Evolution in the overall residential property insurance premium base to which any changes in cost structure are applied, due to rate changes by private insurers and Citizens.[8]
6. The "grossing up" of changes in cost structure to reflect the fact that variable expenses such as agent commissions and taxes are themselves charged as percentages of premium.

Each consideration is noted and affects the calculations via one or more line items, with technical notes for each item that should be sufficient for other actuaries to review the work.

**Findings**

The model under current law is shown in *Exhibit 1*.  Current law operates as follows:

- A rise in RCBF is already scheduled, from a 20% surcharge to 25%.  This will raise consumer rates absent legislative action.
- Fund payout is set at $17 billion and will not change absent legislation.
- Fund retention was $7.389 billion in 2012-13 and currently set on a formula related to statewide insured value growth, which has been zero; retention would increase only if insured values resume growth due to economic conditions.  We have assumed no growth absent legislation.
- Fund coverage level is from Ratemaking Formula, reflecting nearly all insurers choosing 10% co-pay.  No changes are scheduled under current law.

All told, Rollins models an impact to consumer rates from current law of +0.5% by 2016-17.

It is instructive to evaluate the "rightsizing" Fund changes proposed in the Senate Banking & Insurance Committee bill drafted and released Feb. 5, as shown on *Exhibit 2*.

1. Reduction in payout limit from $17 billion to $16 billion in 2014-15, $15 billion in 2015-16, $14 billion in 2016-17.[9]
2. Increase in co-pay from 10% to 15% in 2014-15, 20% in 2015-16, 25% in 2016-17.[10]

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of the Fund must also consider that fact that partial losses to the Fund layer do not fully shrink or expand in proportion to the Fund's retention and limit changes.  These factors are a significant source of uncertainty in the Rollins model, but it is essential to try to account for them properly.

[7] Rollins has used estimates validated by reinsurance intermediaries from BMS, and assumed no major catastrophic events or financial market upheavals that would shock the open reinsurance markets before 2016-17.

[8] Recent rate changes have been significant, averaging +9.2% in a selection of 77 2011-12 annual Homeowners rate filings, and due almost solely to increases in non-catastrophic claims costs.  Nonetheless, the premium base is affected and so the percent change due to any shift in cost structure is affected.  Rollins has made an assumption beyond 2013-14 that rates will increase 5% per year absent any Fund changes.

[9] If fully implemented in isolation, but allowing the changes to RCBF scheduled under current law, Rollins models this provision would impact consumer rates by +2.1% by 2016-17.

[10] If fully implemented in isolation, but allowing the changes to RCBF scheduled under current law, Rollins models this provision would impact consumer rates by +3.0% by 2016-17.

No changes to Fund retention or ratemaking formula were proposed. Rollins models these combined changes as impacting consumer rates by +4.2% when fully implemented. (This means that the proposal would add a +3.6% impact beyond the small impact scheduled under current law.)

Note that the Fund's cost structure has many "moving parts" - some types of changes have interactive effects. The consumer rate impact of a combination of changes is not necessarily the sum or product of impacts of each change in isolation.

Finally, the Group has asked Rollins to model several alternative changes to the Fund, in isolation and combination.

- Waiver of the RCBF (resetting it to zero) until 2016-17. Rollins models an initial impact to consumer rates of -2.4%, stabilizing at -2.0% by 2016-17, if this change is implemented.
- Reduction of the Fund's retention to $6.0 billion, approximately the level in place in 2007-08. Rollins models an initial impact to consumer rates of -2.9%, stabilizing at -2.5% by 2016-17, if this change is implemented.
- The combination of waiver of the RCBF and a lower retention would impact consumer rates by -5.9% initially, stabilizing at -5.1% by 2016-17.

The impact of the combined changes of interest to the Group is shown in **Exhibit 3**. The effect of a waiver of the RCBF is reasonably certain, as it is simply a loading to the base rates calculated in the Fund's ratemaking formula report. The effect of a lower retention is subject to significant uncertainty, as there is both a primary cost effect – replacement of public with private reinsurance coverage at prevailing market rates – and a secondary effect, as the availability of public coverage in a lower layer may change the market-clearing economic cost and capacity of private reinsurance in "below Fund" layers. This secondary effect is extremely difficult to model and outside the scope of this analysis, but it is reasonable to expect that the cost pressures would be in the direction of lowering the cost of private reinsurance in the lower layers and therefore further lowering the ultimate cost structure and consumer rates.

In summary, the two cost-saving options modeled are of approximately equal estimated size, but have different features and benefits to consumers as a matter of public policy.

If the Senate "rightsizing" changes were implemented along with both changes tested by the Group, the results would be as shown in **Exhibit 4**. Interestingly, consumer rates would drop as shown in Exhibit 3 as the Group's proposals were implemented immediately, but the ultimate effect would become approximately rate-neutral, with a slight consumer impact of -1.1%, as the reduction in Fund limit and increase in Fund co-pay were phased in by 2016-17.


**In Conclusion**

Rollins finds that maintenance of current law regarding the Fund will ultimately raise insurer costs slightly due to the last year of the current RCBF glide path. These costs would be passed through to consumers with a rate effect of less than 1%.

The "rightsizing" proposal in the Senate bill draft of Feb. 5 would raise costs further, due to both a reduction in payout limit and an increase in co-payment, with a consumer rate impact of approximately an additional 4%.

Alternatively, there are options for Fund changes that lower insurer and consumer costs, whether proposed in addition to the "rightsizing" or in isolation. In isolation, lowering the retention to $6 billion and/or waiving the RCBF have about the same consumer rate impacts, or about -5% if enacted together. However, in combination with the phased-in proposals in the Senate bill, these two changes together would eventually be approximately rate-neutral or slightly favorable to consumers.

**Limitations on Reliance, Use, and Distribution**

The actuarial model used is reasonably straightforward and compact, and inclusive of most technical and market factors that could impact the path of the results of various changes. Overt assumptions about market reinsurance rates have been validated by outside market-making experts. However, many assumptions are subject to significant uncertainty, either due to incomplete information from the Cat Fund, or predictive judgments about future rate levels and Florida property insurance market attributes.

This analysis is intended to be relied upon solely by the CEO Group, and Rollins disclaims responsibility for the reliance upon it by any other party for any other purpose. This analysis is for the use of the CEO Group only. The Group may distribute it to public officials and other stakeholders provided it is distributed in its entirety, with all text and exhibits. Quoted text or exhibits reviewed in isolation may be misleading. The actuary signing this letter will endeavor to be available to answer questions about the analysis.

We appreciate your interest in this analysis and sincerely hope it is beneficial in determining your public policy positions in advance of the 2013 regular session of Florida's Legislature.

Signed

John W. Rollins, FCAS, MAAA

February 20, 2013

Exhibit 1

**FLORIDA-BASED PROPERTY INSURERS CEO GROUP**
**Analysis of Consumer Rate Impact of Potential Changes to Florida Hurricane Catastrophe Fund**

| Item | Source 2012 | Source 2013-2016 | Description | 2012 Actual | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|---|---|---|---|---|---|---|---|---|
| | Source | | | Scenario: | *Current Law* | | | |
| [1] | n/a | n/a | Exposure Growth Factor | | *0.0%* | *0.0%* | *0.0%* | *0.0%* |
| [2] | FHCF {2} | scenario assumed | Industrywide FHCF Retention | 7,389,000,000 | 7,389,000,000 | 7,389,000,000 | 7,389,000,000 | 7,389,000,000 |
| [3] | FHCF {5} | scenario assumed | Industrywide FHCF Payout | 17,000,000,000 | 17,000,000,000 | 17,000,000,000 | 17,000,000,000 | 17,000,000,000 |
| [4] | FHCF {1} | scenario assumed | Average FHCF Coverage Level | 89.917% | 89.917% | 89.917% | 89.917% | 89.917% |
| [5] | FHCF | scenario assumed | FHCF LAE Benefit | 5% | 5% | 5% | 5% | 5% |
| [6] | [2]+[3]/([4]x(1+[5])) | [2]+[3]/([4]x(1+[5])) | Industrywide FHCF Exhaust | 25,395,023,544 | 25,395,023,544 | 25,395,023,544 | 25,395,023,544 | 25,395,023,544 |
| [7] | FHCF | scenario assumed | Rapid Cash Buildup Factor | 20% | 25% | 25% | 25% | 25% |
| [8] | FHCF {10} | selected by actuary | FHCF Modeled Base Layer Loss | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 |
| [9] | n/a | selected by actuary | Adjustment to AAL Reduction for Partial Loss | 0% | 0% | 0% | 0% | 0% |
| [10] | [8]x([3]curr/[3]prev)x(1+[9]) | same | Adjusted Modeled Layer Loss | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 |
| [11] | FHCF {34} | [10]x[12] | FHCF Base Premium pre-RCBF | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 |
| [12] | [11]/[10] | [11]/[10] | Implied/Assumed Post-Model Gross-Up | 1.0885 | 1.0885 | 1.0885 | 1.0885 | 1.0885 |
| [13] | [11]x(1+[7]) = FHCF {45} | [11]x(1+[7]) | Industrywide FHCF Premium | 1,314,257,827 | 1,369,018,570 | 1,369,018,570 | 1,369,018,570 | 1,369,018,570 |
| [14] | n/a | ([2']-[2])x[4]x(1+[5]) | Addtl/(Reduced) Private Limit - below FHCF | | 0 | 0 | 0 | 0 |
| [15] | n/a | ([6']-[2'])x[4]x(1+[5])-[4']x(1+[5']) | Addtl/(Reduced) Private Limit - beside FHCF | | 0 | 0 | 0 | 0 |
| [16] | n/a | ([6]-[6'])x([4]x(1+[5]) | Addtl/(Reduced) Private Limit - above FHCF | | 0 | 0 | 0 | 0 |
| [17] | [13]/[3] | [13]/[3] | FHCF Rate on Line | 7.73% | 8.05% | 8.05% | 8.05% | 8.05% |
| [18] | n/a | assumed by brokers | Estd Private RateOnLine - just below FHCF | | *36.0%* | *36.0%* | *36.0%* | *36.0%* |
| [19] | n/a | assumed by brokers | Estd Private RateOnLine - beside FHCF | | *19.0%* | *19.0%* | *19.0%* | *19.0%* |
| [20] | n/a | assumed by brokers | Estd Private RateOnLine - just above FHCF | | *11.0%* | *11.0%* | *11.0%* | *11.0%* |
| [21] | n/a | [18]x[14] | Market Addt'l Cost/(Savings) - below FHCF | | 0 | 0 | 0 | 0 |
| [22] | n/a | [19]x[15] | Market Addt'l Cost/(Savings) - beside FHCF | | 0 | 0 | 0 | 0 |
| [23] | n/a | [20]x[16] | Market Addt'l Cost/(Savings) - above FHCF | | 0 | 0 | 0 | 0 |
| [24] | n/a | [13']-[13] | Cost/(Savings) - FHCF Premium | | 54,760,743 | 54,760,743 | 54,760,743 | 54,760,743 |
| [25] | [21]+[22]+[23]+[24] | [21]+[22]+[23]+[24] | Net Additional Costs/(Savings) | | 54,760,743 | 54,760,743 | 54,760,743 | 54,760,743 |
| [26] | QuaSR | n/a | 2012 Direct Residential Premium Base | 10,724,076,948 | | | | |
| [27] | n/a | selected by actuary | Rate Changes Impact on Premium Base | | *9.2%* | *5.0%* | *5.0%* | *5.0%* |
| [28] | [26] | [28]x(1+[27']) | Residential Base Premium | 10,724,076,948 | 11,710,692,027 | 12,296,226,628 | 12,911,037,960 | 13,556,589,858 |
| [29] | selected by actuary | selected by actuary | Actuarial Variable Expense Provision | *20.6%* | *20.6%* | *20.6%* | *20.6%* | *20.6%* |
| [30] | [25]/([28]x(1-[29]) | [25]/([28]x(1-[29]) | **Net Rate Level Effect to Consumers** | **0.0%** | **0.6%** | **0.6%** | **0.5%** | **0.5%** |

Key: Actuarial assumptions | Actuarial/Model estimates | Scenario assumptions

Exhibit 2

**FLORIDA-BASED PROPERTY INSURERS CEO GROUP**
**Analysis of Consumer Rate Impact of Potential Changes to Florida Hurricane Catastrophe Fund**

| Item | Source 2012 | Source 2013-2016 | Description | 2012 Actual | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|------|-------------|------------------|-------------|-------------|---------|---------|---------|---------|
| | | | | Scenario: | *Senate Banking & Insurance DRAFT Feb. 5* | | | |
| [1] | n/a | n/a | Exposure Growth Factor | | *0.0%* | *0.0%* | *0.0%* | *0.0%* |
| [2] | FHCF {2} | scenario assumed | Industrywide FHCF Retention | 7,389,000,000 | 7,389,000,000 | 7,389,000,000 | 7,389,000,000 | 7,389,000,000 |
| [3] | FHCF {5} | scenario assumed | Industrywide FHCF Payout | 17,000,000,000 | 17,000,000,000 | 16,000,000,000 | 15,000,000,000 | 14,000,000,000 |
| [4] | FHCF {1} | scenario assumed | Average FHCF Coverage Level | 89.917% | 89.917% | 85.000% | 80.000% | 75.000% |
| [5] | FHCF | scenario assumed | FHCF LAE Benefit | 5% | 5% | 5% | 5% | 5% |
| [6] | [2]+[3]/([4]x(1+[5])) | [2]+[3]/([4]x(1+[5])) | Industrywide FHCF Exhaust | 25,395,023,544 | 25,395,023,544 | 25,316,170,868 | 25,246,142,857 | 25,166,777,778 |
| [7] | FHCF | scenario assumed | Rapid Cash Buildup Factor | 20% | 25% | 25% | 25% | 25% |
| [8] | FHCF {10} | selected by actuary | FHCF Modeled Base Layer Loss | 1,006,137,124 | 1,006,137,124 | 946,952,587 | 887,768,051 | 828,583,514 |
| [9] | n/a | selected by actuary | Adjustment to AAL Reduction for Partial Loss | 0% | 0% | 2% | 2% | 2% |
| [10] | [8]x([3]curr/[3]prev)x(1+[9]) | same | Adjusted Modeled Layer Loss | 1,006,137,124 | 1,006,137,124 | 966,952,587 | 927,768,051 | 888,583,514 |
| [11] | FHCF {34} | [10]x[12] | FHCF Base Premium pre-RCBF | 1,095,214,856 | 1,095,214,856 | 1,052,561,140 | 1,009,907,425 | 967,253,709 |
| [12] | [11]/[10] | [11]/[10] | Implied/Assumed Post-Model Gross-Up | 1.0885 | 1.0885 | 1.0885 | 1.0885 | 1.0885 |
| [13] | [11]x(1+[7]) = FHCF {45} | [11]x(1+[7]) | Industrywide FHCF Premium | 1,314,257,827 | 1,369,018,570 | 1,315,701,426 | 1,262,384,281 | 1,209,067,137 |
| [14] | n/a | ([2']-[2])x[4]x(1+[5]) | Addtl/(Reduced) Private Limit - below FHCF | | 0 | 0 | 0 | 0 |
| [15] | n/a | ([6']-[2'])x[4]x(1+[5])-[4']x(1+[5']) | Addtl/(Reduced) Private Limit - beside FHCF | | 0 | 925,552,941 | 1,859,437,500 | 2,784,506,667 |
| [16] | n/a | ([6]-[6'])x[4]x(1+[5]) | Addtl/(Reduced) Private Limit - above FHCF | | 0 | 74,447,059 | 140,562,500 | 215,493,333 |
| [17] | [13]/[3] | [13]/[3] | FHCF Rate on Line | 7.73% | 8.05% | 8.22% | 8.42% | 8.64% |
| [18] | n/a | assumed by brokers | Estd Private RateOnLine - just below FHCF | | *36.0%* | *36.0%* | *36.0%* | *36.0%* |
| [19] | n/a | assumed by brokers | Estd Private RateOnLine - beside FHCF | | *19.0%* | *19.0%* | *19.0%* | *19.0%* |
| [20] | n/a | assumed by brokers | Estd Private RateOnLine - just above FHCF | | *11.0%* | *11.0%* | *11.0%* | *11.0%* |
| [21] | n/a | [18]x[14] | Market Addt'l Cost/(Savings) - below FHCF | | 0 | 0 | 0 | 0 |
| [22] | n/a | [19]x[15] | Market Addt'l Cost/(Savings) - beside FHCF | | 0 | 175,855,059 | 353,293,125 | 529,056,267 |
| [23] | n/a | [20]x[16] | Market Addt'l Cost/(Savings) - above FHCF | | 0 | 8,189,176 | 15,461,875 | 23,704,267 |
| [24] | n/a | [13']-[13] | Cost/(Savings) - FHCF Premium | | 54,760,743 | 1,443,598 | (51,873,546) | (105,190,691) |
| [25] | [21]+[22]+[23]+[24] | [21]+[22]+[23]+[24] | Net Additional Costs/(Savings) | | 54,760,743 | 185,487,834 | 316,881,454 | 447,569,843 |
| [26] | QuaSR | n/a | 2012 Direct Residential Premium Base | 10,724,076,948 | | | | |
| [27] | n/a | selected by actuary | Rate Changes Impact on Premium Base | | *9.2%* | *5.0%* | *5.0%* | *5.0%* |
| [28] | [26] | [28]x(1+[27']) | Residential Base Premium | 10,724,076,948 | 11,710,692,027 | 12,296,226,628 | 12,911,037,960 | 13,556,589,858 |
| [29] | selected by actuary | selected by actuary | Actuarial Variable Expense Provision | *20.6%* | *20.6%* | *20.6%* | *20.6%* | *20.6%* |
| [30] | [25]/([28]x(1-[29]) | [25]/([28]x(1-[29]) | **Net Rate Level Effect to Consumers** | **0.0%** | **0.6%** | **1.9%** | **3.1%** | **4.2%** |

Key: Actuarial assumptions  Actuarial/Model estimates  Scenario assumptions

Exhibit 3

**FLORIDA-BASED PROPERTY INSURERS CEO GROUP**
**Analysis of Consumer Rate Impact of Potential Changes to Florida Hurricane Catastrophe Fund**

| Item | Source 2012 | Source 2013-2016 | Description | Scenario: 2012 Actual | Combined CEO Group Alternatives 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|---|---|---|---|---|---|---|---|---|
| [1] | n/a | n/a | Exposure Growth Factor | | -18.8% | 0.0% | 0.0% | 0.0% |
| [2] | FHCF {2} | scenario assumed | Industrywide FHCF Retention | 7,389,000,000 | 6,000,000,000 | 6,000,000,000 | 6,000,000,000 | 6,000,000,000 |
| [3] | FHCF {5} | scenario assumed | Industrywide FHCF Payout | 17,000,000,000 | 17,000,000,000 | 17,000,000,000 | 17,000,000,000 | 17,000,000,000 |
| [4] | FHCF {1} | scenario assumed | Average FHCF Coverage Level | 89.917% | 89.917% | 89.917% | 89.917% | 89.917% |
| [5] | FHCF | scenario assumed | FHCF LAE Benefit | 5% | 5% | 5% | 5% | 5% |
| [6] | [2]+[3]/([4]x(1+[5])) | [2]+[3]/([4]x(1+[5])) | Industrywide FHCF Exhaust | 25,395,023,544 | 24,006,023,544 | 24,006,023,544 | 24,006,023,544 | 24,006,023,544 |
| [7] | FHCF | scenario assumed | Rapid Cash Buildup Factor | 20% | 0% | 0% | 0% | 0% |
| [8] | FHCF {10} | selected by actuary | FHCF Modeled Base Layer Loss | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 |
| [9] | n/a | selected by actuary | Adjustment to AAL Reduction for Partial Loss | 0% | 2% | 2% | 2% | 2% |
| [10] | [8]x([3]curr/[3]prev)x(1+[9]) | same | Adjusted Modeled Layer Loss | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 | 1,006,137,124 |
| [11] | FHCF {34} | [10]x[12] | FHCF Base Premium pre-RCBF | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 |
| [12] | [11]/[10] | [11]/[10] | Implied/Assumed Post-Model Gross-Up | 1.0885 | 1.0885 | 1.0885 | 1.0885 | 1.0885 |
| [13] | [11]x(1+[7]) = FHCF {45} | [11]x(1+[7]) | Industrywide FHCF Premium | 1,314,257,827 | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 | 1,095,214,856 |
| [14] | n/a | ([2']-[2])x[4]x(1+[5]) | Addtl/(Reduced) Private Limit - below FHCF | | (1,311,394,487) | (1,311,394,487) | (1,311,394,487) | (1,311,394,487) |
| [15] | n/a | ([6']-[2'])x[4]x(1+[5])-[4']x(1+[5']) | Addtl/(Reduced) Private Limit - beside FHCF | | 0 | 0 | 0 | 0 |
| [16] | n/a | ([6]-[6'])x[4]x(1+[5]) | Addtl/(Reduced) Private Limit - above FHCF | | 1,311,394,487 | 1,311,394,487 | 1,311,394,487 | 1,311,394,487 |
| [17] | [13]/[3] | [13]/[3] | FHCF Rate on Line | 7.73% | 6.44% | 6.44% | 6.44% | 6.44% |
| [18] | n/a | assumed by brokers | Estd Private RateOnLine - just below FHCF | | 36.0% | 36.0% | 36.0% | 36.0% |
| [19] | n/a | assumed by brokers | Estd Private RateOnLine - beside FHCF | | 19.0% | 19.0% | 19.0% | 19.0% |
| [20] | n/a | assumed by brokers | Estd Private RateOnLine - just above FHCF | | 11.0% | 11.0% | 11.0% | 11.0% |
| [21] | n/a | [18]x[14] | Market Addt'l Cost/(Savings) - below FHCF | | (472,102,015) | (472,102,015) | (472,102,015) | (472,102,015) |
| [22] | n/a | [19]x[15] | Market Addt'l Cost/(Savings) - beside FHCF | | 0 | 0 | 0 | 0 |
| [23] | n/a | [20]x[16] | Market Addt'l Cost/(Savings) - above FHCF | | 144,253,394 | 144,253,394 | 144,253,394 | 144,253,394 |
| [24] | n/a | [13']-[13] | Cost/(Savings) - FHCF Premium | | (219,042,971) | (219,042,971) | (219,042,971) | (219,042,971) |
| [25] | [21]+[22]+[23]+[24] | [21]+[22]+[23]+[24] | Net Additional Costs/(Savings) | | (546,891,593) | (546,891,593) | (546,891,593) | (546,891,593) |
| [26] | QuaSR | n/a | 2012 Direct Residential Premium Base | 10,724,076,948 | | | | |
| [27] | n/a | selected by actuary | Rate Changes Impact on Premium Base | | 9.2% | 5.0% | 5.0% | 5.0% |
| [28] | [26] | [28]x(1+[27']) | Residential Base Premium | 10,724,076,948 | 11,710,692,027 | 12,296,226,628 | 12,911,037,960 | 13,556,589,858 |
| [29] | selected by actuary | selected by actuary | Actuarial Variable Expense Provision | 20.6% | 20.6% | 20.6% | 20.6% | 20.6% |
| [30] | [25]/([28]x(1-[29]) | [25]/([28]x(1-[29]) | **Net Rate Level Effect to Consumers** | 0.0% | -5.9% | -5.6% | -5.3% | -5.1% |

Key: Actuarial assumptions — Actuarial/Model estimates — Scenario assumptions

Exhibit 4

**FLORIDA-BASED PROPERTY INSURERS CEO GROUP**
**Analysis of Consumer Rate Impact of Potential Changes to Florida Hurricane Catastrophe Fund**

| Item | Source 2012 | Source 2013-2016 | Description | 2012 Actual | Scenario: Combined Senate and CEO Group Proposals 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|---|---|---|---|---|---|---|---|---|
| [1] | n/a | n/a | Exposure Growth Factor | | -18.8% | 0.0% | 0.0% | 0.0% |
| [2] | FHCF {2} | scenario assumed | Industrywide FHCF Retention | 7,389,000,000 | 6,000,000,000 | 6,000,000,000 | 6,000,000,000 | 6,000,000,000 |
| [3] | FHCF {5} | scenario assumed | Industrywide FHCF Payout | 17,000,000,000 | 17,000,000,000 | 16,000,000,000 | 15,000,000,000 | 14,000,000,000 |
| [4] | FHCF {1} | scenario assumed | Average FHCF Coverage Level | 89.917% | 89.917% | 85.000% | 80.000% | 75.000% |
| [5] | FHCF | scenario assumed | FHCF LAE Benefit | 5% | 5% | 5% | 5% | 5% |
| [6] | [2]+[3]/([4]x(1+[5])) | [2]+[3]/([4]x(1+[5])) | Industrywide FHCF Exhaust | 25,395,023,544 | 24,006,023,544 | 23,927,170,868 | 23,857,142,857 | 23,777,777,778 |
| [7] | FHCF | scenario assumed | Rapid Cash Buildup Factor | 20% | 0% | 0% | 0% | 0% |
| [8] | FHCF {10} | selected by actuary | FHCF Modeled Base Layer Loss | 1,006,137,124 | 1,006,137,124 | 946,952,587 | 887,768,051 | 828,583,514 |
| [9] | n/a | selected by actuary | Adjustment to AAL Reduction for Partial Loss | 0% | 2% | 2% | 2% | 2% |
| [10] | [8]x([3]curr/[3]prev)x(1+[9]) | same | Adjusted Modeled Layer Loss | 1,006,137,124 | 1,006,137,124 | 966,952,587 | 927,768,051 | 888,583,514 |
| [11] | FHCF {34} | [10]x[12] | FHCF Base Premium pre-RCBF | 1,095,214,856 | 1,095,214,856 | 1,052,561,140 | 1,009,907,425 | 967,253,709 |
| [12] | [11]/[10] | [11]/[10] | Implied/Assumed Post-Model Gross-Up | 1.0885 | 1.0885 | 1.0885 | 1.0885 | 1.0885 |
| [13] | [11]x(1+[7]) = FHCF {45} | [11]x(1+[7]) | Industrywide FHCF Premium | 1,314,257,827 | 1,095,214,856 | 1,052,561,140 | 1,009,907,425 | 967,253,709 |
| [14] | n/a | ([2']-[2])x[4]x(1+[5]) | Addtl/(Reduced) Private Limit - below FHCF | | (1,311,394,487) | (1,311,394,487) | (1,311,394,487) | (1,311,394,487) |
| [15] | n/a | ([6']-[2'])x[4]x(1+[5])-[4']x(1+[5']) | Addtl/(Reduced) Private Limit - beside FHCF | | 0 | 925,552,941 | 1,859,437,500 | 2,784,506,667 |
| [16] | n/a | ([6]-[6'])x[4]x(1+[5]) | Addtl/(Reduced) Private Limit - above FHCF | | 1,311,394,487 | 1,385,841,545 | 1,451,956,987 | 1,526,887,820 |
| [17] | [13]/[3] | [13]/[3] | FHCF Rate on Line | 7.73% | 6.44% | 6.58% | 6.73% | 6.91% |
| [18] | n/a | assumed by brokers | Estd Private RateOnLine - just below FHCF | | 36.0% | 36.0% | 36.0% | 36.0% |
| [19] | n/a | assumed by brokers | Estd Private RateOnLine - beside FHCF | | 19.0% | 19.0% | 19.0% | 19.0% |
| [20] | n/a | assumed by brokers | Estd Private RateOnLine - just above FHCF | | 11.0% | 11.0% | 11.0% | 11.0% |
| [21] | n/a | [18]x[14] | Market Addt'l Cost/(Savings) - below FHCF | | (472,102,015) | (472,102,015) | (472,102,015) | (472,102,015) |
| [22] | n/a | [19]x[15] | Market Addt'l Cost/(Savings) - beside FHCF | | 0 | 175,855,059 | 353,293,125 | 529,056,267 |
| [23] | n/a | [20]x[16] | Market Addt'l Cost/(Savings) - above FHCF | | 144,253,394 | 152,442,570 | 159,715,269 | 167,957,660 |
| [24] | n/a | [13']-[13] | Cost/(Savings) - FHCF Premium | | (219,042,971) | (261,696,687) | (304,350,402) | (347,004,118) |
| [25] | [21]+[22]+[23]+[24] | [21]+[22]+[23]+[24] | Net Additional Costs/(Savings) | | (546,891,593) | (405,501,073) | (263,444,024) | (122,092,206) |
| [26] | QuaSR | n/a | 2012 Direct Residential Premium Base | 10,724,076,948 | | | | |
| [27] | n/a | selected by actuary | Rate Changes Impact on Premium Base | | 9.2% | 5.0% | 5.0% | 5.0% |
| [28] | [26] | [28]x(1+[27']) | Residential Base Premium | 10,724,076,948 | 11,710,692,027 | 12,296,226,628 | 12,911,037,960 | 13,556,589,858 |
| [29] | selected by actuary | selected by actuary | Actuarial Variable Expense Provision | 20.6% | 20.6% | 20.6% | 20.6% | 20.6% |
| [30] | [25]/([28]x(1-[29]) | [25]/([28]x(1-[29]) | **Net Rate Level Effect to Consumers** | 0.0% | -5.9% | -4.2% | -2.6% | -1.1% |

Key: Actuarial assumptions    Actuarial/Model estimates    Scenario assumptions

Exhibit 4

| Item | Notes |
|---|---|
| [1] | FHCF retention is set by law based on exposures reported to it.  This parameter allows [2] to vary with exposure growth if non-zero. |
| [2] | Retention for 2012, adjusted for growth [1]. |
| [3] | FHCF payout is set by law. |
| [4] | FHCF shows weighted-average selected coverage level over all reporting insurers. |
| [5] | FHCF benefit is set by law. |
| [6] | Exhaust point is modeled as Payout, enhanced by LAE benefit but reduced by Co-Pay, excess of Retention. |
| [7] | RCBF is set by law and loads the modeled rate proportionately. |
| [8] | Latest model results from 2012, adjusted proportionately to change in limit [3]. |
| [9] | AAL is not reduced fully pro-rata with limit, because not all company losses exhaust company coverage.  Actuarial adjustment is based on difference in probabilities shown on FHCF loss severity exhibit. |
| [10] | Modeled loss times actuarial adjustment for partial losses in reduced layer. |
| [11] | Per current formula, "actuarially indicated" premium is modeled AAL times composite gross-up factor used by FHCF actuaries. |
| [12] | Gross-up factor taken from FHCF report. |
| [13] | Base premium adjusted for RCBF. |
| | |
| [14] | Geometric calculation of limit below FHCF forgone if retention is increased (or vice versa), not including co-pay. |
| [15] | Geometric calculation of limit below FHCF forgone if co-pay is increased (or vice versa). |
| [16] | Geometric calculation of limit below FHCF forgone if limit is reduced (or vice versa), not including co-pay. |
| [17] | FHCF premium per unit of payout. |
| [18] | Latest market-clearing private reinsurance price estimates from worldwide broker experts. |
| [19] | Latest market-clearing private reinsurance price estimates from worldwide broker experts. |
| [20] | Latest market-clearing private reinsurance price estimates from worldwide broker experts. |
| [21] | Amount of limit change times market rate. |
| [22] | Amount of limit change times market rate. |
| [23] | Amount of limit change times market rate. |
| [24] | Change in FHCF premium due to proportional changes in its layer. |
| [25] | Sum of additional costs offset by savings, in both privately substituted layers and original FHCF layer. |
| [26] | Latest value from OIR's QUASR reports, currently 2012Q3 direct written premium for residential policies. |
| [27] | Actuarial assumption based on review of a log of recent OIR Homeowners rate filings and expected future claims trends. |
| [28] | Premium base is adjusted for expected rate changes. |
| [29] | Actuarial assumption based on review of a log of recent OIR Homeowners rate filings. |
| [30] | Change in costs per unit of premium base, grossed up for variable expenses that increase with premium. |

Key