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**Subject:** e-filing (Dkt. No. 120009-EI)

**Attachments:** 120009 OPC's Post Hearing Statement of Positions and Post Hearing Brief (FPL).pdf  
Electronic Filing

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b. Docket No. 120009-EI

In re: Nuclear Cost Recovery Clause.

c. Document being filed on behalf of Office of Public Counsel

d. There are a total of 21 pages.

e. The document attached for electronic filing is Citizens' Post-Hearing Statement of Positions and Post-Hearing Brief (Florida Power & Light Company).

Thank you for your attention and cooperation to this request.

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DOCUMENT NUMBER-DATE

06618 OCT-1 2012

FPSC-COMMISSION CLERK

10/1/2012

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In re: Nuclear Cost Recovery  
Clause.

DOCKET NO.: 120009-EI  
FILED: October 1, 2012

**CITIZENS' POST-HEARING STATEMENT OF POSITIONS  
AND POST-HEARING BRIEF (FLORIDA POWER & LIGHT COMPANY)**

Pursuant to Order No. PSC-12-0455-PHO-EI, issued August 31, 2012, the Citizens of the State of Florida, by and through the Office of Public Counsel ("OPC"), hereby submit their Post-Hearing Statement of Positions and Post-Hearing Brief for the portion of the proceeding that relates to Florida Power & Light Company's petition to recover nuclear-related costs.

**PRELIMINARY STATEMENT**

The Citizens of the State of Florida, represented by the Office of Public Counsel, will be referred to as "OPC." OPC frequently will refer to Florida Power & Light Company as "FPL." FPL's Extended Power Uprate activities will be called "EPU" or "uprate." FPL's Turkey Point plant site will be referred to as "Turkey Point" or "TP."

OPC has not taken a position on the aspects of FPL's 2012 petition that relate to proposed new nuclear units Turkey Point units 6 and 7. Therefore, this Brief will be limited to those portions of FPL's EPU-related petition, testimony, and activities with which OPC takes issue. Following a Summary of Argument, OPC will provide its positions on the issues. The argument on Issue 1A will follow OPC's position statement. The remaining position statements will be followed by an Argument section that encompasses all of the other FPL-related issues that OPC has addressed during the 2012 hearing cycle.

DOCUMENT NUMBER-DATE  
06618 OCT-1 2012  
FPSC-COMMISSION CLERK

## SUMMARY OF ARGUMENT

In response to criticisms of FPL's uprate activities and justifications that OPC advanced through its witnesses in last year's hearing cycle, which included OPC witness Jacobs' description of FPL's then current estimate of total EPU costs of \$2.5 billion as "an uneducated guess," FPL assured the Commission that its 2011 estimate of the total cost of its uprate projects was "highly informed." Relying on FPL's testimony, the Commission ruled that the 2011 estimate was "adequate," and that a plant site-specific feasibility study was "unnecessary."

Developments since last year's hearing directly and emphatically contradict FPL's August 2011 assurances. In a single year, FPL has increased its "highly informed" estimate by \$671 million. Of the \$671 million increase, approximately *\$555 million – roughly 82% of the total increase* – relates to increases in FPL's cost estimate of the Turkey Point uprate.

In Order No. PSC-09-0783-FOF-EI, the Commission indicated its view that the choice of the most appropriate feasibility test for a project may change, depending on the circumstances that prevail at the time the test is performed. Similarly, last year the Commission reserved to itself the ability to utilize whatever analytical information it deems pertinent. The runaway costs of the Turkey Point uprate project constitute a dramatic change in circumstances that compels an evaluation of the status and feasibility of the Turkey Point uprate project on a separate, stand-alone basis. Otherwise, the Commission would be allowing FPL's consolidated, composite approach to its feasibility analysis to obscure the impact of an out-of-control project on customers who are asked to bear the soaring costs of that project.

During the August 2012 hearing, FPL's EPU project manager asserted that the half billion dollar increase in the estimated cost of the Turkey Point uprate was due to increased

project scope that could not be determined until the percentage of completed engineering grew from 36% (where it stood when FPL witness Jones filed his testimony in May 2011) to 90% (in April 2012). That the estimate of EPU costs would increase to this extent, he said, is “an unsurprising development.” FPL cannot have it both ways. Either OPC witness Dr. Jacobs was correct when he labeled FPL’s 2011 estimate “an uneducated guess,” or FPL misled the Commission in 2011 with its “highly informed” representation.

In either case, the situation with the Turkey Point EPU calls for the application of a sanity test. OPC witness Smith provided such a test by segregating the plant site-specific costs of the St. Lucie and Turkey Point uprate activities, and relating those separated costs to the savings that FPL claims for the EPU projects. Turkey Point units 3 and 4 have significantly fewer years of operation remaining under the terms of their operating licenses than the existing St. Lucie nuclear plants. Nevertheless, Mr. Smith assigned 50% of the total EPU savings claimed by FPL to the Turkey Point plant site. His analysis demonstrates that, even under this extremely conservative (that is to say, favorable to FPL’s Turkey Point EPU) assumption, the Turkey Point uprate project is not cost-effective under FPL’s revised estimate. Further, FPL ignored 2010 predictions by High Bridge Associates – whom FPL engaged specifically to advise it on estimated total costs of the Turkey Point uprate – that the Turkey Point uprate project costs would reach the order of magnitude that FPL now belatedly acknowledges. Had FPL acted on this advice timely, and had it performed a separate plant-specific evaluation of the Turkey Point uprate, it would have been in a position to curtail a growingly infeasible project in 2011. Instead, FPL made the poor management decision to disregard the implications of High Bridge Associates’ estimate and press ahead. The Commission should take action to protect customers from the effects of FPL’s imprudence. In its position on Issue 1A, FPL has acknowledged that

the costs associated with an imprudent decision made in one period may be incurred in subsequent periods. As a proxy for the costs of FPL's imprudence – which, because the alternative was not pursued, cannot be measured directly – OPC asks the Commission to hold FPL to its most recent estimate of the costs of the Turkey Point uprate project. The 2012 estimate adds \$555 million to last year's estimate and, more importantly, to its choice to serve as the threshold of imprudence, is already above the level that is cost-effective for customers. In sum, FPL characterizes OPC's request as a "hard cap." It is instead the appropriate regulatory response to FPL's insistence on a "blank check."

**Issue 1A:** Does the term "certain costs" in Section 403.519(4)(e), Florida Statutes, include costs caused by an imprudent decision or action that are incurred in years subsequent to the year of the imprudent decision or action?

**OPC:** \*Yes. While in Sections 366.93 and 403.519(4)(e), F.S., the Legislature intended to encourage the development of nuclear power, the Legislature also intended to empower the Commission to protect ratepayers from bearing imprudently incurred costs of any such development. While the evidentiary and procedural standards of Section 403.519(4)(e) must be met, to give effect to the Legislature's intent the term "certain costs" must pertain to those excessive costs that are incurred as a result of the imprudence, regardless of the period in which they are incurred.\*

**ARGUMENT:**

Subsection 403.519(4)(e), F.S., states:

(e) After a petition for determination of need for a nuclear or integrated gasification combined cycle power plant has been granted, the right of a utility to recover any costs incurred prior to commercial operation, including, but not limited to costs associated with the siting, design licensing, or construction of the plant and new, expanded, or relocated electrical transmission lines or facilities of any size that are necessary to serve the nuclear power plant, shall not be subject to challenge unless and only to the extent the commission finds, based on a preponderance of the evidence adduced at a hearing before the commission under s. 120.57, that certain costs were imprudently incurred. Proceeding with the construction of the nuclear or integrated gasification combined cycle power plant following an order by the commission approving the need for the nuclear or integrated gasification combined cycle power plant under this act shall not constitute or be evidence of imprudence. Imprudence shall not include any cost

increases due to events beyond the utility's control. Further, a utility's right to recover costs associated with a nuclear or integrated gasification combined cycle power plant may not be raised in any other forum or in the review of proceedings in such other forum. Costs incurred prior to commercial operation shall be recovered pursuant to chapter 366.

Nothing within the provisions of Subsection 403.519(4)(e), F.S., operates to prevent the Commission from protecting ratepayers from the costs related to FPL's decision to proceed with implementation activities of the Turkey Point EPU at full speed, when prudence demanded that it address the red flag of its own expert consultant's 2010 estimate of Turkey Point uprate costs. While this subsection states that proceeding with a project after the Commission has awarded a determination of need is not in and of itself evidence of imprudence, this provision does not immunize FPL against the consequences of imprudence that occur once the project has begun. OPC's position is based, not on the decision to pursue the project for which the Commission issued a determination of need, but on the imprudent manner in which FPL responded to – or, more precisely, failed to respond to – the intervening development of High Bridge Associates' estimate of the Turkey Point EPU costs. The requirements of a preponderance of evidence adduced during a hearing conducted pursuant to Section 120.57, F.S., is satisfied by the proceeding on FPL's petition in this docket. FPL witness Reed agreed that a decision to terminate a project or continue it is within FPL's control. (TR 113) FPL has acknowledged that the "certain costs" to which the subsection refers can be incurred in periods subsequent to the time frame in which the imprudence occurred. (See FPL's position on Issue 1A, as recorded in Prehearing Order No. PSC-12-0455-PHO-EI) Through Dr. Jacobs' testimony, OPC has recommended the basis for calculating the costs that should be associated with FPL's imprudent inaction.

**Issue 28: Should the Commission approve what FPL has submitted as its 2012 annual detailed analyses of the long-term feasibility of completing FPL's Extended Power Uprate**

**project, as provided for in Rule 25-6.0423, F.A.C.? If not, what action, if any, should the Commission take?**

**OPC:** \*No. FPL's estimate of TP EPU costs has increased by more than \$500 million in a year. FPL's consolidated feasibility study masks the impact of the soaring, runaway costs of FPL's Turkey Point uprate project on customers. Plant-specific views are needed. OPC witness Smith's analysis separates the uprate project costs by plant, then assigns 50% of total savings to each plant site. The simplifying assumption of the 50/50 assignment of savings is enormously favorable to the economics of the Turkey Point uprate project. In spite of this, Mr. Smith's exhibit shows that the Turkey Point uprate project would result in net costs, rather than net benefits, based on FPL's current estimate of total costs.\*

**ISSUE 29:** **Should the Commission find that FPL's 2011 project management, contracting, accounting and cost oversight controls were reasonable and prudent for FPL's Extended Power Uprate project?**

**OPC:** \*As its position statement for Issue 29, OPC adopts and incorporates by reference its position on Issue 29A, below.\*

**ISSUE 29A:** **Should the Commission find that in the previous year (2011) and the current year to date (2012), FPL managed the Extended Power Uprate activities in a reasonable and prudent manner? If not, what action should the Commission take?**

**OPC:** \*No. FPL's consulting estimator foresaw soaring Turkey Point EPU costs in 2010. Had FPL acted on this advice timely and prudently to maximize value to customers, in 2011 it would have assessed the economics of the Turkey Point uprate project separately and curtailed the project early in its life. At this advanced stage of the project, OPC believes FPL should complete the project. However, the Commission should recognize that FPL failed to manage the activities associated with the Turkey Point uprate that have led to a \$555 million increase within the last year in a reasonable and prudent manner. The Commission should hold FPL to the current estimate of the costs of completing the Turkey Point uprate project.\*

**Issue 30:** **What system and jurisdictional amounts should the Commission approve as FPL's final 2011 prudently incurred costs and final true-up amounts for FPL's Extended Power Uprate project?**

**OPC:** \*OPC adopts and incorporates its position on Issue 29A and the Argument section that follows below.\*

**Issue 31:** **What system and jurisdictional amounts should the Commission approve as reasonably estimated 2012 costs and estimated true-up amounts for FPL's Extended Power Uprate project?**

**OPC:** \*OPC adopts and incorporates by reference its position on Issue 29A and the argument that follows below.\*

**Issue 32:** What system and jurisdictional amounts should the Commission approve as reasonably projected 2013 costs for FPL's Extended Power Uprate project?

**OPC:** \*OPC adopts and incorporates by reference its position on Issue 29A and the argument that follows below.\*

**FPL – Final Fall-out Issue**

**Issue 33:** What is the total jurisdictional amount to be included in establishing FPL's 2013 Capacity Cost Recovery Clause factor?

**OPC:** \*OPC adopts and incorporates by reference its position on Issue 29A and the argument that follows below.\*

**ARGUMENT**

*FPL's Paradox: FPL increases its 2011 "highly informed" estimate of total EPU costs by a "not surprising" 2012 \$671 million* – In August 2011, OPC witness Dr. Jacobs asserted that, based on the limited amount of engineering design that had been accomplished at that point in time, FPL's estimate of the construction costs for the EPU projects – then a range of \$2,324,000,000 to \$2,479,000,000 – was an "uneducated guess." Dr. Jacobs predicted that significant increases in the estimated cost were in store, and urged the Commission to require FPL to measure the economic feasibility of its uprate activities at the St. Lucie and Turkey Point plant sites on a separated, stand-alone basis. In response, FPL witness Jones, who is the project manager of FPL's EPU activities, assured the Commission that FPL's estimate at the time was "highly informed." (TR 1287)

The Commission accepted and relied upon FPL's assurance. In the last hearing cycle, the Commission deemed FPL's estimate to be "adequate." It declined to require FPL to conduct separate feasibility analyses of the St. Lucie and Turkey Point uprates on the grounds that the effort was "unnecessary." (Order No. PSC-11-0547-FOF-EI, at page 40) However, in that same



Order the Commission also reserved the ability to utilize any analytical information that it deems pertinent:

We find that we are not limited to a specific form of economic analysis, breakeven or otherwise. We may require any form of analysis we believe would provide insight into the long-term feasibility of completing the EPU project.

Order, at page 39.

On April 27, 2012, FPL filed testimony and exhibits relating to the updated estimate of constructing the uprate projects that were the subject of the hearing that the Commission conducted in August 2012. FPL increased the estimate of total construction costs to \$3,150,000,000, an increase of \$671,000,000 above the “highly informed” estimate of August 2012. Of the \$671,000,000 year-over-year increase above the “highly informed” 2011 estimate, the increase attributable to the Turkey Point EPU project activities constituted \$555,000,000, or approximately 82% of the total increase.

The immensity of the year-over-year increase of the estimated cost of the Turkey Point uprate activity is startling. A closer examination discloses that the initial shock and consternation created by the sheer size of the increase is amply justified. For instance, with respect to the cost of the Turkey Point uprate, FPL’s claim that its uprates will provide nuclear capacity at a cost lower than the corresponding cost of new nuclear capacity is no longer valid. Dr. Jacobs testified that the cost of the Turkey Point uprate is now predicted to be \$7,520 per kilowatt. (TR 128) The corresponding cost of the Turkey Point units 6 and 7, expressed in “overnight” costs to quantify both the Turkey Point EPU and new capacity in 2012 dollars, is (according to FPL witness Dr. Sim) in the range of \$3,507 to \$5,190 – significantly below the cost of the Turkey Point uprate. (The cost of the St. Lucie EPU remains within the range of the cost of new nuclear capacity.) (TR 1286)

The cost per kilowatt of the Turkey Point EPU capacity is also higher than the breakeven cost of the proposed new Turkey Point units 6 and 7, which FPL witness Dr. Sim quantified to be in the range of \$4,202 to \$6,326 per kilowatt. (TR 1294) (The breakeven cost is the maximum amount that can be spent on capital costs for the project and remain cost-effective relative to the utility's alternative.) This fact is particularly telling. For new units, FPL can plan on 60 years of operation within which to generate a sufficient quantity of megawatt hours of low-cost energy to overcome the hurdle of the high initial capacity cost of installation. The estimated EPU capital costs for the Turkey Point units that are hosting the uprate activities now exceed the maximum amount that could be spent in anticipation of a long-term payback of 60 years of operations; however, the Turkey Point units have only 20 years remaining on their operating licenses. (TR 1294)

*The revised Turkey Point EPU estimate does not pass a sanity test of the project's economic feasibility* – Most importantly, the projected cost of the Turkey Point uprate is less than cost-effective when measured in a conservative “sanity check” feasibility analysis. Based on information and data that FPL provided in testimony, exhibits, and discovery responses (and using FPL's own feasibility analysis as his starting point), OPC witness Smith, who possesses an extensive background in performing and assessing feasibility studies associated with electric utilities' integrated resource plans, segregated the overall EPU costs into costs that are specific to the St. Lucie and Turkey Point plant sites. Mr. Smith excluded sunk costs from the comparison and focused solely on remaining “to go” costs – the same methodology that FPL employs. (TR 1268) As for the breakdown of savings and benefits: In the absence of material differences in heat rates or fuel costs, the savings generated by each plant site will be a function of the megawatt hours of energy that each generates. (TR 1265) Despite the fact that the existing St.

Lucie nuclear units have 14 more “unit years” of operation remaining on their operating licenses than their Turkey Point counterparts, meaning that the St. Lucie units will generate significantly higher total megawatt hours than Turkey Point units 3 and 4, OPC witness Smith conservatively assigned half of the total savings that FPL claims for the EPU activities to the Turkey Point units. (TR 1265) The assumption skews the comparison in favor of the economics of the Turkey Point units. Mr. Smith then calculated the “net savings” or “net costs” that the comparison between the Turkey Point uprate and FPL’s alternative yielded in seven scenarios that are identical to the seven scenarios of input assumptions that FPL witness Dr. Sim prescribed for FPL’s feasibility study. (TR 1265-1266) Despite the advantage of the 50% allocation of benefits, Mr. Smith determined that the Turkey Point uprate shows net costs rather than net benefits in six of the seven scenarios that FPL witness Dr. Sim postulated in his feasibility study. (TR 1271) Because of his extremely conservative approach, the Commission can place a high level of confidence in the conclusion that the Turkey Point EPU is not cost-effective for customers under FPL’s revised construction cost estimate.

*Based on its own expert estimator’s work, FPL was forewarned* – It did not have to turn out this way. In 2010, High Bridge Associates, which FPL engaged for its expertise in estimating project costs, provided FPL with an estimate of the costs of the Turkey Point uprate that should have served as a red flag to FPL’s management. Specifically, High Bridge Associates estimated that the Turkey Point units 3 and 4 EPU construction costs would reach more than \$1.4 billion (in 2010 dollars) for the two units – at a time when FPL had specified only 44 modifications at Turkey Point 3 to High Bridge Associates to “price out,” and FPL had

identified and was evaluating 10 more potential modifications to the unit. (TR 1356)<sup>1</sup> In this light, FPL's failure to address High Bridge Associates' revealing estimate was a poor management decision. (TR 1285) FPL asserts that the High Bridge Associates' estimate of the uprate cost for Turkey Point unit 4 was "conceptual" in nature. (TR 1330) However, High Bridge Associates' estimate recognized the uncertainty inherent in FPL's project – something FPL frequently discusses, but has failed to incorporate into its estimate over time. Moreover, if FPL genuinely regarded the High Bridge Associates' product as "too conceptual" to serve as the basis for a decision to stop or continue, FPL could have and should have arrested work on the project until it had completed the number of engineering specifications that it deemed sufficient to confirm definitively what the "conceptual" High Bridge Associates' estimate predicted. (This is, after all, what actually happened – except that, instead of first heeding the ominous implications of High Bridge Associates' estimate, FPL forged ahead with its spectacularly expensive implementation activities at the same time it proceeded with engineering analyses.) Instead, FPL chose to blind itself to the High Bridge estimate and dilute the increasingly poor economics of the Turkey Point uprate in an overall, consolidated feasibility study.

*FPL's imprudent inaction has led to costs that will exceed the limits of cost-effectiveness* – What costs should be attributed to FPL's imprudence? FPL witness Reed stated in testimony that *costs* are neither prudent nor imprudent. (TR 32) *Decisions* are prudent or imprudent, and costs are incurred because of decisions. (TR 32) FPL witness Jones agreed with this statement. (TR 1351) Identifying the costs that are properly attributable to a decision is not always as simple as identifying a single, superfluous invoice and subtracting it from the amount

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<sup>1</sup> The list grew. To date, according to FPL witness Jones' Exhibit 61 (TOJ-11), FPL has identified and confirmed 120 modifications for the two Turkey Point units. Over time, FPL witness Reed has criticized FPL for its failure to incorporate an adequate contingency reserve in its planning. (TR 109)

to be recovered. As FPL agrees in its position on Legal Issue 1A, the costs associated with an imprudent course may occur in periods subsequent to the imprudence itself. In this instance, the decision to continue the Turkey Point uprate project in the face of its expert's indications that costs would soar altered the entire trajectory of the costs that followed the decision. As a calculus with which to measure the impact, bear in mind that the objective of the utility – and the purpose of annual feasibility studies – is to ensure that the uprate project delivers net benefits to customers. Dr. Jacobs and Mr. Smith have demonstrated that the cost estimate of the Turkey Point uprate already has reached the point at which the Turkey Point uprate will result in net costs rather than net benefits to customers.

In response to OPC's testimony and recommendation, FPL mounted several counterarguments. None of them have merit, for the following reasons:

*FPL's explanation of why the half billion dollar increase is "not surprising" contradicts its earlier testimony* – FPL argues that only 36% of engineering had been completed as of May 2011, and Bechtel (the EPC contractor) could not provide a meaningful estimate of the overall cost of uprate activities until November, 2011, as engineering design was only then approaching 90% on a majority of modifications. Mr. Jones described in elaborate detail the information and insight that the additional engineering design made possible. (TR 1042-1043, 1047) In the process, Mr. Jones made no effort to reconcile this testimony with his 2011 statement in prefiled testimony, as adopted from the witness stand in August 2011, that FPL's 2011 estimate was "highly informed." In fact, his answers during cross-examination establish that he was aware of the extent of the information that is a prerequisite to a meaningful estimate when he testified that his prior estimate was "highly informed" in August 2011. (TR 1081-1082) Mr. Jones' emphasis on the need to reach a far greater degree of detailed engineering – and

FPL's inability to provide a meaningful estimate prior to that point – directly contradicts his 2011 testimony. Mr. Jones said that the increase in the estimate of Turkey Point EPU costs since August 2011 is “an unsurprising development.” (TR 1324) If FPL regards a half billion dollar increase in the Turkey Point EPU costs as “unsurprising,” it is because FPL did not believe its own testimony when it said that its 2011 estimate was “highly informed.”

*FPL's consultant does not dispute the propriety of a standalone analysis where circumstances warrant* – FPL offered witness Reed to opine that FPL's 2011 expenses “have been prudently incurred.” (TR 111) Mr. Reed based his position in large measure on FPL's body of written procedures and controls. He acknowledged, however, that it is one thing to have a body of internal controls, and another to implement and adhere to them. (TR 108) Over time, Mr. Reed has criticized FPL for failing to properly account for contingency as it developed the EPU activities. (TR 109) When he filed his initial testimony in March 2012, Mr. Reed did not know the size of the increase in FPL's cost estimate of the Turkey Point EPU. (TR 112) He agreed that the decision as to what to do with a consultant's estimate – such as whether to continue a project or terminate it – is within FPL's control. (TR 113) Mr. Reed said that he has “no problem” with the Commission examining the feasibility of the EPU project on a plant site-specific basis, when it is warranted by circumstances. (TR 122)<sup>2</sup>

*2012 apples and 2022 oranges* – FPL witnesses Jones and Sim disputed Dr. Jacobs' observation that the cost of Turkey Point uprate capacity now exceeds the corresponding cost of new nuclear capacity. Cross-examination established that FPL witness Jones understood and agreed that the appropriate comparison must express both the EPU costs and the costs of new

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<sup>2</sup> Mr. Reed stated two caveats. The first was that sunk costs should be excluded from the feasibility analysis. Mr. Smith excluded them in his “sanity test” exercise. (TR 1268) Mr. Reed also stated that the Commission would need to recognize that not all “to go” costs would be avoidable, citing contract cancellation costs as an example. The sum of \$555 million would pay for a lot of contract cancellation costs.

nuclear capacity – represented in the form of proposed Turkey Point units 6 and 7 – in 2012 dollars. (TR 1354) However, Mr. Jones was under the erroneous impression that the value of \$8,500 per kilowatt that he wished to compare to Turkey Point EPU costs was expressed in 2012 dollars. (TR 1354) Mr. Jones was mistaken. The \$8,500 figure is expressed in 2022 dollars, not in 2012 dollars, and includes escalation and inflation ten years into the future. Dr. Jacobs correctly compared his value of \$7,520 to the overnight costs, as both are expressed in 2012 dollars.

Dr. Sim clung to his position that the appropriate analogy is to compare the uprate cost per kilowatt, 2012 in current dollars, with the installed cost of new units that will be completed ten years from now, measured in 2022 dollars. Yet, it was Dr. Sim who sponsored the exhibit containing the cost of Turkey Point units 6 and 7 expressed in “overnight costs,” which he agreed means 2012 dollars. (TR 1402, 1409) Column 2 of Dr. Sim’s Exhibit 86 (SRS-6) displays the “overnight costs” in a range of \$3,570 to \$5,190 per kilowatt. When stating that the cost of the Turkey Point EPU capacity is higher than the corresponding cost of new nuclear capacity, Dr. Jacobs compared the two values using the same monetary units – meaning 2012 dollars. FPL witness Jones, an engineer and FPL’s EPU project manager, agreed that this is the appropriate measurement. (TR 1354)

When claiming that the cost of the Turkey Point EPU capacity remains lower than the corresponding cost of new nuclear capacity, Dr. Sim resisted this proposition – and with it, the concept of using present value to place two different units of measurement (made different by the time value of money) on an equal footing. Dr. Sim insisted, at considerable cost to his credibility, it seems to OPC, that the capacity cost built into the 2008-2012 time frame should be compared to the capacity cost that is expected to be completed in 2022-2023, after being subject

to escalation and inflation for the intervening ten years. (TR 1408) Clearly, Dr. Jacobs' comparison is appropriate, and Dr. Sim's is "apples and oranges."

As Dr. Jacobs observed, even when AFUDC and transmission are removed from the cost per kilowatt of the Turkey Point EPU capacity, the cost is \$6,700, which is higher than the high end of the range of overnight (2012 dollars) cost of Turkey Point units 6 and 7. (TR 1292) If anything, Dr. Jacobs' observation is conservative. To prepare a more precise and more accurate comparison, the costs expended on the Turkey Point uprate activities during 2008-2012 would have to be inflated to 2012 dollars, which would increase the differential between the cost of Turkey Point EPU costs and the comparable cost of new nuclear capacity that Dr. Jacobs observed. (TR 1409)

*OPC's sanity test applied the TP uprate costs to the same scenarios that FPL devised for its consolidated feasibility analysis* – FPL witness Dr. Sim attempted to downplay OPC's "sanity test" feasibility analysis by arguing that it depended on assumptions – such as the fuel price forecast – that could change in the future. (TR 1364) However, during cross-examination of his direct testimony, Dr. Sim acknowledged that the purpose of a feasibility study is to assess whether the utility should terminate or continue a project, based on its economics. (TR 1241) He agreed that, based on the results of the feasibility study, the utility and/or the Commission may conclude that the project that is the subject of the analysis should be cancelled. (TR 1242) He agreed that it is important that the study incorporate assumptions that will enable the Commission to gauge the feasibility of the project over the range of possibilities. (TR 1242) Dr. Sim chose his seven scenarios, which involve a range of combinations of variables, because he believed that those scenarios were adequate for the purpose of a feasibility study. (TR 1243)



OPC witness Smith employed the same scenarios that Dr. Sim chose for FPL's consolidated feasibility analysis. (TR 1271)

*FPL tried to move the goal posts* – In an effort to resist the conclusions that follow OPC witness Smith's sanity test, FPL's witnesses Jones and Sim said that the benefit side of the equation would increase if FPL were to secure an additional extension of operating licenses from the NRC. (TR 1328, 1378) Given that (1) no NRC process for entertaining such applications is in place; (2) any application for such extensions (assuming that they become authorized) are more than a decade away; and (3) the impact (in wear and tear) of the currently authorized, already extended operational period on the technical viability of the units to continue past their current limits is unknown, the notion of a future, additional extension is unvarnished speculation. The same is true of Dr. Sim's suggestion that, at some point in the future, regulators may or may not apply a renewable portfolio standard and, if one is imposed, it may or may not incorporate a "nuclear neutral" exemption. (TR 1379)

Similarly, Dr. Sim suggested that the Turkey Point EPU could provide "hedging" benefits. However, when one examines his explanation of such benefits, it becomes clear that they are simply a separate effort to extend fuel savings benefits beyond the seven scenarios that Dr. Sim crafted for the purpose of adequately assessing whether the EPU project should terminate or continue.

Dr. Sim also referred to the benefits of fuel diversity; however, those benefits are not to be purchased at any cost. FPL witness Reed said in his testimony that the objective is to pursue a project to the extent it shows an "economic basis over its useful life." (TR 108) He reiterated the importance of this objective during cross-examination. (TR 108) And, despite his references to the Legislature's policy of encouraging nuclear generation, FPL policy witness Deason said,

“I believe good regulatory policy should encourage a utility to consider all *cost-effective* options for new generation.” (TR 1433) (emphasis provided)

*Turkey Point has not been shown to be the only potential source of southeast Florida generation* – To the list of benefits that he associated with the uprate (nearly all of which are captured and quantified within the feasibility analysis), Dr. Sim sought to add the transmission benefits of generation capacity located within southeast Florida. (TR 1208-1209) However, such benefits would inure to any generating capacity located in southeast Florida. Dr. Sim did not claim that the benefits of locating generators close to load centers are unique to Turkey Point. In fact, he did not claim that the same benefits could not be derived from the alternative to which he compares the EPU in the consolidated feasibility analysis.

*Dr. Sim wants to “freeze” his own analysis, but alter the cost side of OPC’s sanity test. OPC witness Smith employed the same vintage data that Dr. Sim used in preparing FPL’s consolidated feasibility study* – Dr. Sim criticized OPC witness Smith for using data as of December 31, 2011, saying this made his analysis “stale.” Dr. Sim, who has frequently emphasized that he and other analysts must “freeze” their assumptions for the purpose of completing their analyses, failed to mention that he, too, based FPL’s feasibility analysis on the December 31, 2011 data. (TR 1216) Mr. Smith’s objective was to employ FPL’s own analysis as his starting point and recast it on a plant site-specific basis. (TR 1265) Dr. Sim observed that, while Mr. Smith relied on cost data as of December 31, 2011, another \$800 million has since been spent and therefore should now be excluded from his comparison as “sunk costs.” Dr. Sim neglected to mention that FPL’s estimate of the ultimate cost of the Turkey Point EPU will continue to increase over time as well. More importantly, he misses the significance of his own point. Excluding the additional \$800 million that has been spent since December 31, 2011 does

not serve to make the Turkey Point EPU more cost-effective. Rather, it proves that the cost of FPL's imprudent decision to proceed in the face of the 2010 High Bridge Associates estimate continues to mount.

*FPL's policy witness mischaracterized OPC's recommendation* – FPL witness Deason described OPC's recommendation as an effort to apply a "risk sharing" mechanism (TR 1430) or a "breakeven analysis" (TR 1431) to FPL's uprate projects after the Commission ruled against both measures. He also claimed that adopting OPC's recommendation would result in the disallowance of "otherwise prudently incurred costs." (TR 1416) Mr. Deason is mistaken on all counts.

The "risk sharing mechanism" that the Commission declined to adopt in Order No. PSC-11-0095-FOF-EI was based on the premise that the utility should absorb a portion of costs, and therefore, have "skin in the game," whether or not it had made an imprudent decision. This case is markedly different. Here, OPC contends that it was imprudent for FPL to disregard its own expert estimator's warning that the Turkey Point EPU would reach the levels of FPL's estimate at a point in time when FPL could have curtailed the Turkey Point uprate to protect its customers' interests. OPC does not advance a "risk sharing" mechanism. Rather, OPC asks the Commission to disallow the costs properly associated with FPL's imprudence.

Nor does OPC request the Commission to revisit its decision regarding the application of a "breakeven analysis" to FPL's feasibility methodology. In fact, OPC witness Smith specifically adopted FPL's feasibility methodology. To perform the "breakeven analysis" that it applies to its proposed *new* units, FPL models the total costs of FPL's alternative, and after comparing the full cost of the alternative with a scenario in which nuclear capital costs are considered to be zero, quantifies the maximum capital costs that can be spent on the initial

installation of new nuclear capacity without exceeding the overall cost of the alternative.<sup>3</sup> By contrast, OPC witness Smith utilized FPL's own quantified *to-go costs* and deduced, based on a plant-specific breakdown, that the current estimate yields net costs to customers. Further, the concern with respect to possible limitations on FPL's ability to recover prudently incurred costs, which the Commission expressed in its order on a proposed breakeven analysis, is not applicable here. OPC bases its recommendation on FPL's imprudence in light of information that was known or should have been recognized at that time.

Indeed, Mr. Deason's statement that OPC's recommendation would have the Commission disallow "otherwise prudently incurred costs" begs the essential question of whether, as OPC contends, FPL was imprudent when it disregarded High Bridge Associates' ominous estimate at the point when it could have avoided incurring costs that are detrimental to customers. If the Commission agrees with OPC, the resulting disallowance by definition will be based on FPL's imprudence.

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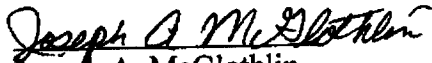
<sup>3</sup> The Commission summarized the "breakeven" calculation that FPL applies to its proposed new nuclear units in depth at page 15 of Order No. PSC-11-0547-FOF-EI. During the August 2012 hearing, FPL witness Dr. Sim said the methodology had not changed. (TR 1206)

## CONCLUSION

For the reasons stated in this Brief, the Commission should determine that in 2011 FPL imprudently disregarded its expert's indications that Turkey Point EDU costs would reach the extreme levels of its current estimate; gauge the economic feasibility of the Turkey Point EPU on a plant site – specific basis; and employ FPL's current estimate of Turkey Point EPU construction costs as the basis on which to measure costs associated with FPL's imprudence.

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

**I HEREBY CERTIFY** that a true and foregoing **CITIZENS' POST-HEARING STATEMENT OF POSITIONS AND POST-HEARING BRIEF (FLORIDA POWER & LIGHT)** has been furnished by electronic mail and U.S. Mail on this 1st day of October, 2012, to the following:

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