#### FILED SEP 19, 2013 DOCUMENT NO. 05564-13 FPSC - COMMISSION CLERK

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# -M-E-M-O-R-A-N-D-U-M-

- **DATE:** September 19, 2013
- **TO:** Office of Commission Clerk (Cole)
- FROM: Office of Industry Development and Market Analysis (Broman, Hinton, Laux, Lewis) KL Division of Economics (Draper, Garl, Higgins)
- **RE:** Docket No. 130009-EI Nuclear cost recovery clause.
- AGENDA: 10/1/13 Special Agenda Post-Hearing Decision Participation is limited to Commissioners and Staff

COMMISSIONERS ASSIGNED: All Commissioners

**PREHEARING OFFICER:** Balbis

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\IDM\WP\130009.RCM.DOC

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# List of Acronyms and Abbreviations

AFUDC	Allowance for funds used during construction				
COL	Combined operating license				
COLA	Combined operating license application (NRC filings)				
Commission	Florida Public Service Commission				
CR3 Uprate Project	Multi-phased uprate project at DEF's Crystal River Unit 3				
CWIP	Construction work in progress				
DEF	Duke Energy Florida, Inc.				
EPU	Extended Power Uprate				
EPU Project	FPL Extended Power Uprate of St. Lucie Units 1 & 2 and Turkey Point				
EPU Plojeci	Units 3 & 4				
F.A.C.	Florida Administrative Code				
FIPUG	Florida Industrial Power Users Group				
FPL	Florida Power & Light Company				
FRF	Florida Retail Federation				
F.S.	Florida Statutes				
Levy Project	DEF's Levy Units 1 & 2 project				
NCRC	Nuclear Cost Recovery Clause				
NRC	Nuclear Regulatory Commission				
O&M	Operations and Maintenance				
OPC	Office of Public Counsel				
PCS Phosphate	White Springs Agricultural Chemicals Inc. d/b/a PCS Phosphate – White				
rCS rnospilate	Springs				
SACE	Southern Alliance for Clean Energy				
SCA	Florida's Site Certification Application				
TP Project	FPL's Turkey Point Units 6 & 7 project				

#### Case Background

On March 1, 2013, Florida Power & Light Company (FPL) and Duke Energy Florida, Inc. (DEF) filed petitions seeking prudence review and final true-up of the 2012 costs for certain nuclear power plant projects pursuant to Rule 25-6.0423, Florida Administrative Code (F.A.C.), and Section 366.93, Florida Statutes (F.S.). On May 1, 2013, FPL and DEF filed additional petitions seeking approval to recover estimated 2013 costs and projected 2014 costs. Both companies requested to recover these costs in 2014 through the Capacity Cost Recovery Clause (CCRC).

FPL's petitions addressed two nuclear projects. The first project is composed of multiple extended power uprate (EPU) activities at its four existing nuclear generating units, Turkey Point Units 3 and 4 and St. Lucie Units 1 and 2 (EPU Project). FPL obtained an affirmative need determination for its EPU Project in 2008 by Order No. PSC-08-0021-FOF-EI.<sup>1</sup> The second project is the construction of two new nuclear generating units, Turkey Point Units 6 and 7 (TP Project). FPL obtained an affirmative need determination for the two new nuclear generating units in 2008 by Order No. PSC-08-0237-FOF-EI.<sup>2</sup>

DEF's petitions also addressed two nuclear projects. The first project is a multi-phased EPU of its existing nuclear generating plant, Crystal River Unit 3 (CR3 Uprate Project). DEF obtained an affirmative need determination for the CR3 Uprate Project in 2007 by Order No. PSC-07-0119-FOF-EI.<sup>3</sup> The second project is the construction of two new nuclear generating units, Levy Units 1 and 2 (Levy Project). DEF obtained an affirmative need determination for the Levy Project in 2008 by Order No. PSC-0518-FOF-EI.<sup>4</sup>

Traditionally, all eligible prudently incurred power plant construction project costs are afforded the same regulatory accounting and ratemaking treatment. That is, once the need for a project has been determined, the utility records all expenditures associated with the project into Account 107, Construction Work in Progress (CWIP), for that particular project. A monthly allowance-for-funds-used-during-construction (AFUDC) rate is applied to the average balance of the amount in the account and the resulting dollar amount is then added to the account balance. This process continues until completion of the project.

Once the plant is placed in commercial service, the CWIP account balance is transferred to the appropriate plant-in-service accounts and becomes part of the utility's rate base. The impact of including the total project costs in a utility's rate base, as well as the impact of

<sup>&</sup>lt;sup>1</sup> Order No. PSC-08-0021-FOF-EI, issued January 7, 2008, in Docket No. 070602-EI, <u>In re: Petition for</u> determination of need for expansion of Turkey Point and St. Lucie nuclear power plants, for exemption from Bid Rule 25-22.082, F.A.C. and for cost recovery through the Commission's Nuclear Power Plant Cost Recovery Rule, <u>Rule 25-6.0423, F.A.C.</u>

<sup>&</sup>lt;sup>2</sup> Order No. PSC-08-0237-FOF-EI, issued April 11, 2008, in Docket No. 070650-EI, <u>In re: Petition to determine</u> need for Turkey Point Nuclear Units 6 and 7 electrical power plant, by Florida Power & Light Company.

<sup>&</sup>lt;sup>3</sup> Order No. PSC-07-0119-FOF-EI, issued February 8, 2007, in Docket No. 060642-EI, <u>In re: Petition for</u> determination of need for expansion of Crystal River 3 nuclear power plant, for exemption from Bid Rule 25-22.082, F.A.C., and for cost recovery through fuel clause, by Progress Energy Florida, Inc.

<sup>&</sup>lt;sup>4</sup> Order No. PSC-08-0518-FOF-EI, issued August 12, 2008, in Docket No. 080148-EI, <u>In re: Petition for</u> determination of need for Levy Units 1 and 2 nuclear power plants, by Progress Energy Florida, Inc.

additional plant operations expenses, are addressed during a subsequent proceeding wherein it is determined whether customer base rate charges should be changed in order to provide the utility the opportunity to recover these costs.

Under the traditional regulatory scheme, if the power plant project is terminated, rather than being placed in commercial service, the utility may petition for its prudently incurred CWIP account balance to become a regulatory asset that is amortized over a period of years.

In 2006, the Florida Legislature enacted Section 366.93, F.S. (creating an alternative cost recovery mechanism), to encourage utility investment in nuclear electric generation in Florida. Section 366.93, F.S., authorized the Florida Public Service Commission (the Commission) to allow investor-owned electric utilities to recover certain construction costs in a manner that reduces the overall financial risk associated with building a nuclear power plant. In 2007, Section 366.93, F.S., was amended to include integrated gasification combined cycle plants, and in 2008, the statute was amended to include new, expanded, or relocated transmission lines and facilities necessary for the new power plant. The statute required the adoption of rules that provide for, among other things, annual reviews and cost recovery for nuclear plant construction through the existing CCRC. Rule 25-6.0423, F.A.C., was adopted to implement Section 366.93, F.S.

Pursuant to Rule 25-6.0423(4) and (5), F.A.C., once a utility obtains an affirmative need determination for a power plant covered by Section 366.93, F.S., the utility may petition for cost recovery using the alternative mechanism. Three types of prudently incurred costs are described in the rule.

- Site selection costs are costs incurred prior to the selection of a site. A site is deemed selected upon the filing for a determination of need. (Rule 25-6.0423(2)(e) and (f), F.A.C.)
- Preconstruction costs are those costs incurred after a site is selected through the date site clearing work is completed. (Rule 25-6.0423(2)(g), F.A.C.)
- Construction costs are costs that are expended to construct the power plant including, but not limited to, the costs of constructing power plant buildings and all associated permanent structures, equipment and systems. (Rule 25-6.0423(2)(i), F.A.C.)

In Order No. PSC-08-0749-FOF-EI, issued November 12, 2008, the Commission approved stipulations among the parties to Docket No. 080009-EI, establishing that site selection costs be treated in the same manner as preconstruction costs.

Pursuant to Section 366.93(2), F.S., and Rule 25-6.0423(5), F.A.C., all prudently incurred preconstruction costs, as well as the carrying charges on prudently incurred construction costs, are to be recovered directly through the CCRC. The costs are recovered over the entire time the new power plant project is being developed.

Pursuant to Section 366.93(4), F.S., and Rule 25-6.0423(7), F.A.C., a utility is allowed an increase in its base rate charges when a power plant is placed in commercial service. The statute

describes the method for calculating the increase and the rule provides further details on the calculations and the process.

In the event a utility elects not to complete or is precluded from completing the power plant project subject to the alternative cost recovery mechanism, Section 366.93(6), F.S., and Rule 25-6.0423(6), F.A.C., allow a utility to recover its prudently incurred costs, by amortizing them over at least 5 years, through the CCRC.

Rule 25-6.0423(5), F.A.C., sets forth the process by which this Commission conducts an annual hearing to determine the recoverable amount that will be included in the CCRC pursuant to Section 366.93, F.S. This is the sixth year of the Nuclear Cost Recovery Clause (NCRC) roll-over docket.

Intervention in the 2013 NCRC proceeding was granted to the following parties: the Office of Public Counsel (OPC), Southern Alliance for Clean Energy (SACE), Florida Industrial Power Users Group (FIPUG), White Springs Agricultural Chemicals Inc. d/b/a PCS Phosphate – White Springs (PCS Phosphate), and the Florida Retail Federation (FRF). Testimony and associated exhibits were filed by FPL, DEF, OPC and Commission staff.

In 2012, DEF filed a Petition for Limited Proceeding to Approve a Stipulation and Settlement Agreement (2012 Settlement Agreement) that was signed by OPC, FRF, FIPUG, FEA, and PCS Phosphate. The Commission approved the 2012 Settlement Agreement by Order No. PSC-12-0104-FOF-EI.<sup>5</sup> This 2012 Settlement Agreement was a comprehensive settlement addressing issues from multiple dockets including the NCRC Docket. Requirements from the 2012 Settlement Agreement that affected this docket include:

- A requirement that DEF's 2013-2017 NCRC annual recovery amounts, for the Levy Project portion, reflected the use of a prescribed fixed \$/kWh factor set by rate class.
- For the Levy portion of DEF 2013-2017 NCRC recovery, a requirement that DEF is limited in its recovery of only those costs associated with certain Levy Project activities, as identified in the 2012 Settlement Agreement and DEF may not file for any additional Levy Project activity cost recovery unless otherwise agreed to by the parties.
- A true-up of Levy Project cost recovery revenues to authorized actual project costs is required to take place in the final year of the 2012 Settlement Agreement.
- During the settlement period, DEF will not petition for in-service cost recovery related to the CR3 Uprate Project prior to nine months following the commencement of commercial operation, if the power plant is returned to service.
- The parties to the 2012 Settlement Agreement concurred that for the CR3 Uprate Project, DEF is allowed to recover carrying costs and other NCRC recoverable costs through the NCRC consistent with Section 366.93, F. S.

<sup>&</sup>lt;sup>5</sup> Order No. PSC-12-0104-FOF-EI, issued March 8, 2012, in Docket No. 120022-EI, <u>In re: Petition for limited</u> proceeding to approve stipulation and settlement agreement by Progress Energy Florida, Inc.

Chapter 2013-184, Laws of Florida, effective July 1, 2013, reflect amendments made to Section 366.93(2), F.S., which now require use of the current AFUDC rate for purposes of calculating recoverable carrying charges. Also Section 366.93(3), F.S., was amended to include additional requirements and limitations. These amendments to Section 366.93, F.S., gave rise in this proceeding to Legal Issues 1, 2, and 3 and factual Issues 6 and 20.

On July 12, 2013, the Commission held a Prehearing Conference to address remaining open items between the parties and to finalize hearing issues. As a result of this conference, Issues 11, 11A, 11B, 11C and Issue 12 were withdrawn.

On August 1, 2013, DEF filed two items with the Commission, which if approved, would affect the resolution of issues 18 through 31 of the NCRC hearing. The first item was a Petition for Limited Proceeding to Approve Revised and Restated Stipulation and Settlement Agreement (2013 Settlement Agreement). The 2013 Settlement Agreement is an agreement between DEF, OPC, FIPUG, FRF and PCS Phosphate. The second filing was a Motion to Defer and Alternative Petition for a Temporary Variance or Waiver of Rule 25-6.0423(5)(c)2, F.A.C., on an Emergency Basis (Motion to Defer). All of the named parties identified in the DEF portion of the NCRC hearing either supported approval of, or did not oppose approval by the Commission of these filings.

The 2013 Settlement Agreement, if approved, will replace and supplant the 2012 Settlement Agreement. As stated on page two of the 2013 Settlement Agreement:

This Agreement between DEF and the Parties who represent customers' interests before the Commission is a fair and reasonable, comprehensive resolution of unique and complex issues that is in the best interests of DEF and its customers, and that is in the public interest.

The 2013 Settlement Agreement represents a comprehensive resolution (in whole or in part) of issues found in Docket Nos. 100437-EI, 130001-EI, 130007-EI, 130009-EI and 130091-EI. The Commission is currently scheduled to hold a hearing October 16-17, 2013 on the 2013 Settlement Agreement.<sup>6</sup>

As stated on page three of the Motion to Defer:

While the Revised and Restated Settlement Agreement resolves the 2013 NCRC CR3 Uprate and LNP issues, there is not sufficient time prior to the 2013 NCRC hearing for the Commission to review and potentially approve the Petition for Limited Proceeding to Approve the Revised and Restated Settlement Agreement. DEF moves to defer the Commission's determination of the CR3 Uprate project and LNP issues in the 2013 NCRC docket to the 2014 NCRC docket pending Commission review, and potentially approval, of the Company's Petition for Limited Proceeding to Approve the Revised and Restated Settlement Agreement.

<sup>&</sup>lt;sup>6</sup> <u>See</u> Order No. PSC-13-0385-PCO-EI, issued August 16, 2013, in Docket No. 130208-EI, <u>In re: Petition for</u> <u>limited proceeding to approve revised and restated stipulation and settlement agreement by Duke Energy Florida,</u> <u>Inc., dba Duke Energy</u>, at 3.

DEF further requests that the Commission allow recovery of the requested cost amounts for the deferred CR3 Uprate project and LNP costs presented in DEF's petitions in the 2013 NCRC docket subject to refund and true-up in the 2014 NCRC docket, after the Commission has reviewed the Revised and Restated Settlement Agreement.

On August 5, 2013, the Commission convened an evidentiary hearing in this docket. As part of its discussion of preliminary matters, the Commission addressed DEF's Motion to Defer. After the parties presented their positions on the Motion to Defer and responded to Commission questions, DEF stated that given its position on Legal Issue 1 (as stated on page 1 of its posthearing Brief) coupled with the termination of construction of the Levy Project as announced in the 2013 Settlement Agreement, DEF contended that all legal issues for DEF in this hearing would become moot. After further discussion and the moving of all prefiled testimony and exhibits from the DEF portion of the hearing into the record, the Commission's consideration of Issues 16 through 31 will be deferred to next years' NCRC or fully resolved through the Commission's consideration of the 2013 Settlement Agreement. After the Commission's approval of the Motion to Defer, DEF and PCS Phosphate were excused from further participation in the hearing. (TR 251-252)

The Commission next addressed a filing by FPL presenting a stipulation with the intervening parties entitled FPL Case Issue Positions/Stipulations and Procedural Agreements (FPL Stipulation). (EXH 112) In the FPL Stipulation, FPL agreed to reduce its requested carrying costs by \$1.6 million to reflect the application of the AFUDC rate calculation as reflected in Chapter 2013-184, Laws of Florida, Section 366.93(2), F.S., beginning with costs incurred after June 30, 2013. (TR 246) The parties to this agreement agreed to waive crossexamination of certain witnesses and that the prefiled testimonies and exhibits of these witnesses would be entered into the record. (TR 245-248) All of the parties, with the exception of SACE, agreed that acceptance of the FPL Stipulation by the Commission would make Legal Issues 1, 2 and 3 moot for FPL, thereby requiring no additional Commission action. (TR 247-248; 249; 256) While SACE agreed with the other parties on Legal Issues 2 and 3, it did not agree with them concerning the resolution of Legal Issue 1. In addition, all of the parties agreed post hearing briefs would be limited to addressing the contested FPL EPU Project Issue 13, where the parties would argue OPC's disallowance recommendation based on the stipulated testimony and exhibits. However, SACE and FPL also agreed that they would brief all of the contested TP Project 6 & 7 issues. (TR 247-248) Staff notes that these issues are 4, 5, 6, 8-10.

Upon further discussion with the parties, the Commission accepted and approved the FPL Stipulation. (TR 262) A copy of the FPL Stipulation is provided in this recommendation as Attachment A. Having dispensed with the remaining preliminary matters, the Commission moved into the evidentiary phase of the hearing.

As outlined in the FPL Stipulation, effected parties filed post-hearing briefs addressing the remaining unresolved issues on August 19, 2013. The Commission has jurisdiction over these matters pursuant to Section 366.93, F.S., as well as Sections 366.04, 366.041, 366.05, 366.06 and 366.07, F.S.

## **Discussion of Issues**

## **FPL - TP Project Issues**

**Issue 4**: Do FPL's activities since January 2012 related to the proposed Turkey Point Units 6 & 7 qualify as "siting, design, licensing and construction" of a nuclear power plant as contemplated by Section 366.93, F.S.?

**Recommendation**: Yes. Staff recommends the Commission find that FPL's activities since January 2012 related to the proposed Turkey Point Units 6 & 7 qualify as "siting, design, licensing and construction" of a nuclear power plant as contemplated by Section 366.93, F.S. (Lewis, Laux)

## **Position of the Parties**

**FPL**: Yes. FPL is conducting activities and incurring expenses necessary to obtain the license, permits, and approvals to develop Turkey Point 6 & 7. Because FPL has received a determination of need for Turkey Point 6 & 7 pursuant to Section 403.519(4), F.S., FPL is entitled to recover all prudently incurred costs including, but not limited to, those associated with siting, design, licensing, and construction. FPL's "intent to build" Turkey Point 6 & 7 is evident in the actions it is taking to develop Turkey Point 6 & 7. The Florida Supreme Court has affirmed this Commission's prior determination that similar, licensing-only actions are sufficient to demonstrate an intent to build.

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

**SACE**: No. FPL's activities since January 2012 fail to demonstrate the requisite intent to build TP 6 & 7. FPL remains focused solely on obtaining a COL from the NRC to create the option to build TP 6 & 7 and has continued to defer all activities related to actual construction. Section 366.93, Fla. Stat. and Commission precedent do not contemplate such an approach. As a result, FPL is not realistically engaged in the "siting, design, licensing, and construction" of TP 6 & 7, and is not eligible for recovery of costs related to TP 6 & 7.

## **<u>FRF</u>**: No position.

<u>Staff Analysis</u>: The dispute in this issue is whether FPL's Turkey Point Units 6 & 7 project (TP Project) activities during 2012 preclude FPL from receiving alternative regulatory treatment under Section 366.93, F.S.

## PARTIES' ARGUMENTS

FPL

In its brief, FPL argued that SACE has presented no evidence that would support a finding that FPL's activities do not qualify as "siting, design, licensing, and construction." FPL noted that the Commission had considered this issue in three prior NCRC dockets. In these dockets, similar activities were reviewed and found to qualify. (FPL BR 9) FPL claimed that because it has placed emphasis on obtaining the required license, permits, and approvals and has decided not to initiate the next phase of activities until absolutely necessary, costs to customers are minimized while progress on the project continues. FPL further stated that there was no witness or record evidence that challenges this conclusion. (FPL BR 12) FPL stated it was actively engaged in the licensing of the TP Project and was therefore engaged in the "siting, design, licensing, and construction of a nuclear power plant" as contemplated by Section 366.93, F.S. (FPL BR 13)

#### SACE

SACE argued that FPL has made no showing of intent to construct the TP Project, FPL has not made a commitment to construct or decision to proceed to the construction phase, and FPL has not guaranteed that the reactors will be built and only continues to create the opportunity for new nuclear generation. (SACE BR 6)

SACE asserted that FPL has not met the requisite intent to build the proposed two reactors for the TP Project. (SACE BR 2) SACE cited two findings that the Commission made regarding Section 366.93, F.S., in Order No. PSC-11-0095-FOF-EL<sup>7</sup> The first is that a utility does not have to simultaneously engage in the "siting, design, licensing, and construction" of a nuclear power plant to remain eligible for cost recovery under Section 366.93, F.S. The second is that a utility "must continue to demonstrate its intent to build the nuclear power plant for which it seeks advance recovery of costs to be in compliance with Section 366.93, F.S." (SACE BR 6) SACE also asserted that sufficient intent is not demonstrated unless the decision to proceed to the construction phase of the project has been made. (SACE BR 6) According to SACE "the activities of FPL since January of 2012 related to the TP project fail to demonstrate this requisite realistic intent to build." (SACE BR 4)

#### OPC, FIPUG, and FRF

Pursuant to the stipulation filed by the parties, OPC and FRF took no position and FIPUG did not object to the stipulation on this issue. (EXH 112, p. 2) In its post-hearing brief FIPUG adopted the position of OPC. (FIPUG BR 1) Thus, OPC, FIPUG, and FRF have all essentially taken no position on this issue.

<sup>&</sup>lt;sup>7</sup> Order No. PSC-11-0095-FOF-EI, issued on February 2, 2011, in Docket No. 100009-EI, <u>In re: Nuclear cost</u> recovery clause.

#### ANALYSIS

Section 366.93, F.S., provides for cost recovery for utilities engaged in the siting, design, licensing, and construction of nuclear power plants. In Order No. PSC-11-0095-FOF-EI, the Commission interpreted and defined this statutory provision to include the building of new nuclear power plants and the modification of existing nuclear power plants.<sup>8</sup> As discussed in that order, the main question to review when analyzing this issue is whether a utility must engage in siting, design, licensing, and construction activities simultaneously in order to meet the statutory requirements of Section 366.93, F.S.

Section 366.93(1)(a), F.S., explains that cost includes, but is not limited to, all expenses related to or resulting from the activities of siting, licensing, design, construction, or operation of the nuclear power plant. Furthermore, Section 366.93(1)(f), F.S., defines preconstruction as that period of time after a site has been selected through and including the date the utility completes site clearing work. Rule 25-6.0423(2)(h), F.A.C., which implements Section 366.93(1)(f), F.S., provides:

Site selection costs and pre-construction costs include, but are not limited to: any and all costs associated with preparing, reviewing and defending a Combined Operating License (COL) application for a nuclear power plant; costs associated with site and technology selection; costs of engineering, designing, and permitting the nuclear or integrated gasification combined cycle power plant; costs of clearing, grading, and excavation; and costs of on-site construction facilities (i.e., construction offices, warehouses, etc.).

In analyzing this issue, staff takes guidance from Order No. PSC-11-0095-FOF-EI. At page 9 of the order, the Commission found that a utility need not engage in siting, design, licensing, and construction activities simultaneously in order to meet the statutory requirements under Section 366.93, F.S.

The Commission also relied upon this analysis when setting the 2012 nuclear cost recovery amounts for FPL and PEF in Order No. PSC-11-0547-FOF-EI.<sup>9</sup> SACE appealed this order to the Florida Supreme Court.<sup>10</sup> In that case, SACE argued that the Commission's application of the above guidance was arbitrary and unsupported by competent, substantial evidence in the 2011 NCRC proceeding. In that same case, SACE further argued:

... that the utility companies' respective preconstruction activities creating only an "option to build" (e.g., obtaining licenses and approvals necessary to construct and operate the plants, performing work needed to support environmental permitting, continuing relevant negotiations, etc.) did not demonstrate their

<sup>&</sup>lt;sup>8</sup> <u>Id; See also</u> Order No. PSC-08-0749-FOF-EI, issued on November 12, 2008, in Docket No. 080009-EI, <u>In re:</u> <u>Nuclear cost recovery clause</u>; and Order Nos. PSC-09-0783-FOF-EI, issued on November 11, 2009, in Docket No. 090009-EI, <u>In re: Nuclear cost recovery clause</u>.

<sup>&</sup>lt;sup>9</sup> See Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket No. 110009-EI, <u>In re: Nuclear cost</u> recovery clause.

<sup>&</sup>lt;sup>10</sup> Southern Alliance for Clean Energy v. Graham, 113 So. 3d 742 (Fla 2013).

"intent to build" as required under Order No. PSC-11-0095-FOF-EI, reasoning that neither FPL not PEF had actually committed to build the plants and that the projects were tentative and uncertain at best.

<u>Southern Alliance for Clean Energy</u> 113 So. 3d at 4. The Supreme Court disagreed. <u>Id.</u> at 20. In its decision upholding the Commission, the Supreme Court stated:

[T]he statute does not require such a "final decision" and indeed contemplates that "[i]f the utility elects not to complete . . . construction of the nuclear power plant, . . . [it] shall be allowed to recover all prudent preconstruction and construction costs incurred[.]"

#### <u>Id.</u> at 18.

Staff notes that Chapter 2013-184, Laws of Florida, effective July 1, 2013, modified the alternative cost recovery mechanism authorized in Section 366.93 F.S., by establishing new procedures and requirements for cost recovery during the preconstruction phase. Section 366.93(3)(b), F.S., now states:

During the time that a utility seeks to obtain a combined license from the Nuclear Regulatory Commission for a nuclear power plant or a certification for an integrated gasification combined cycle power plant, the utility may recover only costs related to, or necessary for, obtaining such licensing or certification.

Although the amendments to Section 366.93, F.S., were not in effect during 2012, staff believes they are consistent with the Commission's determination that a utility need not be engaged in siting, design, licensing and construction activities simultaneously. Staff believes that FPL's pursuit of the necessary licenses and permits are activities that qualify as siting, design, licensing and construction of a nuclear power plant as contemplated by Section 366.93, F.S.

In support of FPL's position that its activities during 2012 are sufficient to demonstrate an intent to build, FPL witness Scroggs described the TP Project activities as being primarily focused on permitting and licensing efforts as well as planning for the next phase of the project. (TR 523-524; 526- 527; 532; 561-562; 582-586; 646)

During 2012, FPL's Site Certification Application was completed and the review process moved to the next stage. As part of the licensing process required by the Nuclear Regulatory Commission (NRC), the NRC requested additional information from FPL to update its Combined Operating License Application (COLA). FPL's reply to the NRC (Revision 4) contained additional information regarding seismic issues and alternative sites. (TR 523-524)

Staff observes that FPL continued to engage in activities associated with permitting and licensing during 2012. These activities are overseen by a management team that includes engineers, analysts, and managers who facilitate both internal and external reviews. The team has professional experience that informs its decision making. Staff agrees that there are benefits

to FPL's measured approach, such as reducing uncertainties, as described below by witness Scroggs:

By taking the steps to obtain the licenses and approvals, further defining the specific project, FPL is accomplishing several key objectives. First, the uncertainties around the approval process and the final definition of the project are significantly reduced. Second, the market for providing the equipment and services needed to construct the project is allowed to further mature, leveraging observations from the first wave projects. Lastly, a shorter time span between the decision to initiate construction activities and the commercial operation dates reduces uncertainties in the underlying feasibility analysis and provide the best decision basis available.

#### (TR 526-527)

FPL obtained local land use approvals in 2012. FPL also successfully completed an underground injection control exploratory well and a dual zone monitoring well at the project site. (TR 532) Completing these activities is necessary in order to confirm geologic expectations and obtain construction and operations permits from the Florida Department of Environmental Protection (DEP). (TR 537-538)

The activities that FPL engaged in during 2012 have laid the foundation for activities that will allow the TP Project to continue to progress during 2013 and 2014, according to witness Scroggs. (TR 561) Though there have been delays in the NRC's regulatory review process, they have been accommodated and the projected commercial operation dates for Unit 6 (2022) and Unit 7 (2023) have not changed. (TR 561-562) Staff believes that it is prudent for FPL to continue with a stepwise approach and agrees with witness Scroggs that such an approach "continues to provide FPL customers with the best opportunity to make steady progress on the project but avoid premature commitments to engineering and material costs." (TR 562)

With regard to continued progress on the TP Project, witness Scroggs testified to FPL's plans to complete all requests for additional information received from the NRC and to respond to specific questions from the U.S. Army Corps of Engineers related to wetland permits in 2013. These activities have an impact on the draft Environmental Impact Statement (EIS) being prepared by the NRC in relation to its review of the COLA. (TR 581-582) However, the NRC has announced that it will not issue any combined operating licenses until its Waste Confidence rulemaking is completed, currently projected to be in September of 2014. (TR 578, 580)

Site certification activities at the state level continued in 2013 and witness Scroggs testified that zoning approvals and a land use determination were received from the Miami-Dade Board of County Commissioners in January. Both Miami-Dade County and DEP issued reports recommending approval with conditions. (TR 583) The site certification hearing to consider FPL's application is expected to be held before the Power Plant Siting Board in December 2013. (TR 583-584)

In keeping with its stepwise management process, FPL has extended the Forging Reservation Agreement it originally executed with Westinghouse in 2008. This agreement allows FPL "to secure manufacturing capacity for ultra-heavy forgings to support the project's original schedule." (TR 586) The current extension expires October 31, 2013. One of the benefits of this approach is that continuing developments in the industry will inform FPL's decisions on the existing reservation agreement with Westinghouse. (TR 586)

In staff's view, the size, complexity and duration of the TP Project necessarily requires coordination with multiple state and federal agencies, private businesses, and consideration of impacts to ratepayers. Such coordination will at times require assumptions and adjustments to be made. Witness Scroggs' testimony acknowledges these factors and provides explanations of FPL's decisions and the process used to reach them. One example is engineering work FPL expects to conduct based on its TP Project Revision 6 schedule. Witness Scroggs testified that the Revision 6 "schedule assumes that bid and evaluation activities related to early site preparation design and planning begin in late 2013 and continue through 2014." (TR 585) However, witness Scroggs also clarifies that once the NRC issues a new COLA review schedule, FPL will conduct a full project review and then make decisions about whether activities will continue as previously scheduled. (TR 585) In staff's opinion, this is a reasonable approach to the siting, design, licensing, and construction of a nuclear power plant. Witness Scroggs' testimony below further describes FPL's approach and intent with regard to the TP Project.

Q. Does FPL intend to pursue completion of the Turkey Point 6 & 7 project?

A. Yes. The most important near term activity is creating the opportunity by obtaining the licenses and approvals necessary to construct and operate Turkey Point 6 & 7. Once the project is closer to obtaining the approvals, FPL will be able to refine the economic assumptions and incorporate the experience of other new nuclear projects as well as how state and federal energy policies have evolved. The FPSC will continue to have the opportunity to review FPL's plans through the NCRC process.

(TR 585)

Though SACE asserted that FPL's demonstration of intent necessarily must include a decision to proceed to the construction phase of the project, staff does not see any evidence in either the law or the record to support such an assertion. Staff sees no requirement in Section 366.93, F.S., for a utility to commit to or guarantee construction prior to receipt of all necessary construction licenses and permits as SACE appears to allege.

Witness Scroggs described FPL's project management approach as containing "... four phases of project development: Exploratory, Licensing, Preparation, and Construction." (TR 567) Staff believes that FPL will at some point have to make a decision as to whether it will proceed to the construction phase of the project, but the testimony of witness Scroggs makes it clear that FPL is still in the licensing phase of the project. (TR 567-568) Staff agrees with witness Scroggs' statement that the phased approach "allows FPL to make progress on obtaining licenses and approvals without taking on the risks of committing to a specific construction

schedule and the associated expenditures." (TR 568) In its brief, FPL explained why it believes such an approach is reasonable and prudent: "FPL's careful and methodical project management approach controls cost risks while maintaining progress towards delivery of new nuclear generation on the earliest practicable deployment schedule." (FPL BR 3) Staff is persuaded by FPL's description of its project management approach and the fact that there is no testimony in the record that challenged FPL's approach to managing the TP Project.

#### **CONCLUSION**

Upon review of the record, staff believes FPL's actions since January 2012 support the requirement of demonstrating its intent to build. Staff believes that FPL's activities for the TP Project qualify as siting, design, licensing, and construction of a nuclear power plant as contemplated by Section 366.93, F.S.

**Issue 5**: Should the Commission approve what FPL has submitted as its 2013 annual detailed analysis of the long-term feasibility of completing the Turkey Point Units 6 & 7 project, as provided for in Rule 25-6.0423, F.A.C.? If not, what action, if any, should the Commission take?

**<u>Recommendation</u>**: Yes. The evidence demonstrated that FPL fully considered the economic, regulatory, technical, funding, and joint ownership considerations impacting the feasibility of the project. While continuing uncertainty exists in virtually all these areas, continuation of the TP Project appears feasible at this time. (Garl, Higgins)

#### **Position of the Parties**

**FPL**: Yes. FPL's analysis properly considers reasonable projection of future DSM savings, and considers a reasonable range of fuel and environmental compliance costs to serve as possible future scenarios in which to view the economics of Turkey Point 6 & 7. FPL annually updates its projections and assumptions, such as the system load forecast, that accounts for energy efficiency, for its economic analysis. Based on this analysis, completion of Turkey Point 6 & 7 is projected to be solidly cost-effective for FPL's customers in five out of seven scenarios and within the break even range in the remaining two scenarios, fully supporting the feasibility of continuing the project.

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

<u>SACE</u>: No. FPL has failed to complete and properly analyze a realistic feasibility analysis which includes the impact of demand side management in meeting demand and doesn't properly take into account all of the factors that have resulted in the great uncertainty and risk impacting TP 6 & 7, including, but not limited to: depressed natural gas prices, absence of a cost of carbon; and other economic conditions. The Commission should deny cost recovery for costs related to TP 6 & 7 and find projected 2014 costs related to TP 6 & 7 as not reasonable.

**<u>FRF</u>**: No position.

## Staff Analysis:

# PARTIES' ARGUMENTS

#### <u>FPL</u>

FPL argued in its post-hearing brief that its 2013 TP Project feasibility analysis was presented to satisfy the requirement of the Nuclear Cost Recovery Rule 25-6.04235(c)5, F.A.C., which states: "By May 1 of each year, along with the filings required by this paragraph, a utility shall submit for Commission review and approval a detailed analysis of the long-term feasibility of completing the power plant." (FPL BR 13)

FPL's witness Sim noted that the analytical approach used in the 2013 feasibility analysis for the TP Project is the same approach used in the 2007 Need Determination filing and each annual NCRC proceeding since then. (TR 667) Witness Sim stated that by using this approach, FPL calculated the breakeven overnight capital costs for the new nuclear units in a variety of fuel cost and environmental compliance cost scenarios. (TR 660, 666) The breakeven cost is the amount FPL could spend on Turkey Point 6 & 7 that results in the same lifecycle costs as an alternative plan that relies on adding natural gas combined cycle units. (TR 589-90) FPL updated key assumptions used in this analysis, including forecasted peak and annual loads, forecasted fuel costs, forecasted environmental compliance costs, and project-specific assumptions. (TR 668-677; FPL BR 13-14)

FPL witness Sim argued that the results of its 2013 analysis continue to support the feasibility of continuing the TP Project. FPL contends that in five of seven scenarios the breakeven capital cost was above FPL's non-binding cost estimate range for the TP Project, and in the remaining two scenarios, the breakeven capital cost was within FPL's non-binding cost estimate range. (TR 678; EXH 59) FPL said in nominal terms, a resource plan that includes the TP Project is currently projected to save customers \$78 billion in fuel cost savings over the life of the new plant. (TR 680-681; EXH 52) FPL witness Scroggs added that the TP Project will reduce reliance on natural gas by about 18 percent in the first full year of two unit operation and reduce carbon dioxide emissions by about 265 million tons over the life of the project. (TR 562, 682; EXH 52) Witness Scroggs also demonstrated the feasibility of financing the project and of obtaining all necessary approvals. (TR 590-591) With respect to the recent events at the Fukushima Daiichi plant in Japan, witness Diaz testified that "the certified AP-1000 reactor referenced in the Turkey Point 6 & 7 COLA is likely to satisfy the majority of the post Fukushima changes under consideration by the NRC." (TR 269) FPL asserted it is clear that the project remains highly beneficial for FPL's customers. (FPL BR 14)

The FPL brief argued that SACE's assertion that the non-binding cost estimate and the in-service dates FPL used for purposes of its feasibility analysis were unreasonable and had no merit. (FPL BR 14-15) Witness Scroggs testified that the reasonableness of FPL's non-binding cost estimate was supported by extensive testimony including that FPL's estimate remains conservative when compared to other new nuclear projects much further along in the development process. (TR 588, 622) FPL witness Scroggs asserted it utilized in-service dates that are the "earliest practicable" in-service dates, fully acknowledging that future events could impact the project schedule. (TR 586, 578-581) In response to a FPSC Staff interrogatory, FPL demonstrated that the project would be expected to remain cost effective for FPL's customers even assuming the in-service dates are revised by 5 or 10 years. (EXH 76, Bates Nos. 199-202; FPL BR 14-15)

FPL, in its brief, also countered SACE's challenge of the amount of Demand Side Management (DSM) that FPL assumed in its 2013 resource planning work, including its 2013 feasibility analysis for the TP Project. FPL contended its DSM assumptions were shown by witness Sim to be reasonable. (FPL BR 15) FPL asserted it assumed an amount of DSM consistent with the DSM plan approved by the Commission for FPL. (FPL BR 15) Furthermore, witness Sim stated that FPL assumed an additional amount of DSM after the term of its current DSM goals of 100 MW per year for six years. (TR 672) In total, FPL witness Sim claimed it

assumed roughly 300 MW of load control from FPL's DSM programs, 900 MW of energy efficiency, and 1,800 MW of energy efficiency from federal and state standards over the next 10 years. (TR 767-768) Witness Sim also noted that SACE focused on energy efficiency, specifically current gigawatt hour savings, which "have absolutely no relationship to the timing or magnitude of [FPL's] resource need." (TR 783-784) Witness Sim also explained why energy efficiency does not necessarily decrease system emissions. In fact, it has the potential to increase a utility system's emissions if it defers the addition of more efficient generating units. The addition of incremental energy efficiency also has the potential to increase customers' fuel costs. (TR 784-785) Moreover, witness Sim stated, there simply is not enough cost-effective DSM to be a viable alternative to the TP Project or a natural gas combined cycle power plant. (TR 773) FPL asserted that alternatives to the TP Project were properly considered during the need determination for the TP Project. (FPL BR 15)

As FPL witness Sim testified, FPL has been implementing considerable amounts of DSM since 1980, and has been recognized for its DSM accomplishments over the years. To date, FPL has avoided the need for more than 14 generating units of 400 MW each. (TR 825) FPL argues that SACE's accusations that FPL is not committed to pursuing DSM resources are unsupported and without merit. (FPL BR 15)

Finally, FPL's brief addressed SACE's challenge of the reasonableness of FPL's environmental compliance cost assumptions. FPL argued that it relies on a third party, ICF International, for the range of environmental compliance cost projections used in its feasibility analyses. FPL asserted that SACE presented no evidence that different assumptions, such as an assumption of zero CO<sub>2</sub> compliance costs over the 50 years in the analysis, would be reasonable. In fact, if SACE were to advocate for such an assumption, it would contradict SACE's position in the recent DSM goals docket. (FPL BR 16; TR 824-825) In sum, FPL concluded that each of SACE's arguments fails. FPL asserted it used reasonable assumptions in its feasibility analysis, and no intervenor witness presented evidence to the contrary. FPL stated its TP Project feasibility analysis should, therefore, be approved. (FPL BR 15-16)

#### <u>SACE</u>

SACE argued in its post-hearing brief that the TP Project is not qualitatively feasible. It contended that accrual of fuel savings to customers is not equitable because the savings will not be realized until 25 to 36 years from today. (SACE BR 7-8) FPL's older customers may not survive long enough to benefit from the project. In addition, SACE argued that great uncertainty remains as to the ultimate cost of the project, the projected in-service date, and whether the Company will build the project at all. SACE criticized FPL for, after five years since the need determination, still not being able to offer the Commission more than a non-binding cost estimate in the range of \$12.7 billion to \$18.5 billion for the project, thereby demonstrating uncertainty. (SACE BR 9) Based on a report from Concentric Energy Advisors, SACE asserted that the lower end of FPL's non-binding overnight cost range, \$3,659 per kW to \$5,320 per kW, is unrealistic. The Concentric report, SACE stated, showed "There are no proposed AP-1000 reactor projects that come 'close' to the low end of the FPL range of \$3,659 per installed kW." (SACE BR 9) SACE concluded that the realistic project expense estimate is an overnight cost of \$5,320 per kW and \$18.5 billion for the total project. SACE further stated that FPL cannot

guarantee that, by the time of construction, the overnight cost will not be \$7,000 per kW (TR 626), or that the project will be built at all. (SACE BR 7-10)

SACE challenged the TP Project in-service date in its brief by noting that FPL will need a COLA review schedule to be issued by the NRC in the next 4.5 months to meet the 2022-2023 in-service date. (SACE BR 10) However, the review schedule is under review by the NRC, and FPL is still working on questions necessary for issuance of a new schedule. In addition, federal budget cuts are causing delays in the processing of COLAs, and issuance of a COL is dependent on the NRC revising its Waste Confidence Rule by late 2014. (SACE BR 10-11) SACE asserted that other factors impinging on the TP Project in-service dates include delays, cost overruns, and cancellations of other AP-1000 projects, lack of a co-ownership agreement, need to defer FPL's forging agreement, and lack of financing for the project. (SACE BR 10-11)

In its brief, SACE also contended that the TP Project is not economically feasible. SACE supported its claim by asserting FPL's resource planning model and feasibility analysis is flawed. The FPL resource planning model was limited to the TP Project and a natural gas combined cycle power plant, thereby omitting DSM as an alternative. (SACE BR 12) SACE contended that the full potential of energy efficiency is never considered because it was constrained by certain cost effectiveness tests. Moreover, energy efficiency measures never competed head-to-head with the TP Project to determine which can meet projected demand more cost-effectively. The omission of the head-to-head competition provided no support for witness Sim's allegation that there is not enough energy efficiency to be a viable alternative to the TP Project. (SACE BR 11-13)

The SACE brief also asserted that economic feasibility of the TP Project also suffers from bias in FPL's feasibility analysis. SACE claimed FPL lacked a commitment to energy efficiency as a resource in meeting projected demand. SACE pointed to witness Sim's testimony about the reliability benefit of resource diversification. Yet only 0.2 percent of demand was met through energy efficiency. (SACE BR 14; TR 759, 784) Furthermore, SACE claimed that FPL's feasibility analysis was biased toward resources that maximize shareholder value, such as power plants that earn a rate of return while energy efficiency earns no rate of return. (SACE BR 14-15; TR 760-761, 787)

SACE's brief finally contended that some assumptions FPL used in its feasibility analysis impart bias to the result. FPL failed to state which natural gas and environmental compliance cost scenarios are the most probable. In addition, the TP Project was not feasible under any fuel or environmental scenario at zero CO<sub>2</sub> compliance cost at today's overnight cost of \$5,320 per kW. (SACE BR 15) Finally, SACE alleged that FPL had a recent history of overstating electricity demand as expressed as "net energy load." [sic] (SACE BR 15) This, SACE concluded, will have the impact of pushing generation resource needs further out in time, including the need for the TP Project. (SACE BR 15)

SACE, in summarizing its arguments, noted, "Past Commission guidance *does not limit the Commission's authority* to consider any factor in approving, or disapproving, the feasibility of the proposed TP project." (SACE BR 16) After citing the feasibility requirements in Commission Order No. PSC-08-0237-FOF-EI, SACE stated, "The factors outlined above are a necessary, but not a sufficient condition, for approval of an FPL feasibility analysis." (SACE BR

16) SACE continued its explanation of the Commission's role under Section 403.519, F.S., in observing that "if the Commission is inclined to find that past costs were prudently incurred, it is not precluded by statute to disapprove projected (prospective) costs as unreasonable." (SACE BR 17) SACE also noted that the statute "is silent on the Commission's role on prospective costs; therefore, the Commission has great discretion in this area." (SACE BR 16-18)

SACE concluded its arguments by summarizing that based on the foregoing, FPL's analysis failed to show the TP Project is feasible, and that cost recovery should be denied. (SACE BR 16)

#### OPC, FIPUG, FRF

Pursuant to the stipulation filed by the parties, OPC and FRF took no position and FIPUG did not object to the stipulation on this issue. (EXH 112, Bates No. 2) In its post-hearing brief, FIPUG adopted the position of OPC. (FIPUG BR 1) Thus, OPC, FIPUG, and FRF have all essentially taken no position on this issue.

#### ANALYSIS

In 2006, the Florida Legislature enacted Section 366.93, F.S., to encourage utility investment in nuclear electric generation in Florida. FPL witness Deason observed, "The Legislature determined that the risks of planning, constructing, and operating new nuclear generation were great and that the traditional regulatory model was insufficient to address those risks." (TR 422)

Section 366.93(2), F.S., requires the Commission to establish, by rule, alternative cost recovery mechanisms for the recovery of costs incurred in the siting, design, licensing, and construction of a nuclear power plant. The statute states, "Such mechanisms shall be designed to promote utility investment in nuclear or integrated gasification combined cycle power plants . .." The Commission adopted Rule 25-6.0423, F.A.C., to satisfy the requirements of Section 366.93(2), F.S. Rule 25-6.0423(5)(c)5, F.A.C., states:

By May 1 of each year, along with the filings required by this paragraph, a utility shall submit for Commission review and approval a detailed analysis of the long term feasibility of completing the power plant.

In Order No. PSC-08-0237-FOF-EI, at page 29, the Commission provided specific guidance regarding the requirements necessary for FPL to satisfy Rule 25-6.0423(5)(c)5, F.A.C. The Order reads as follows:

FPL shall provide a long-term feasibility analysis as part of its annual cost recovery process which, in this case, shall also include updated fuel forecasts, environmental forecasts, breakeven costs, and capital cost estimates. In addition, FPL should account for sunk costs. Providing this information on an annual basis

will allow us to monitor the feasibility regarding the continued construction of Turkey Point 6 and  $7.^{11}$ 

#### **Required Elements**

Staff believes that FPL satisfied the requirements of Order No. PSC-08-0237-FOF-EI and Rule 25-6.0423, F.A.C., through various means. (EXHs 53, 54, 57, 59)

FPL's 2013 analysis of the long term feasibility of completing of the TP Project remained consistent with the methodology it used in the 2007-2008 need determination proceeding and each subsequent NCRC proceeding.<sup>12</sup> Stated most simply, FPL compared competing resource plans, one with the nuclear resource option and one with a non-nuclear resource option. The competing, non-nuclear resource option is a new, highly fuel-efficient, natural gas-fired combined cycle generating unit of the type FPL is constructing at its Port Everglades Modernization project. In evaluating these options, FPL considered numerous quantitative and qualitative factors. Among the quantitative factors that FPL examined were fuel and environmental price forecasts, project costs, and cost-effectiveness using multiple sensitivities for fuel and environmental costs. Qualitative factors considered included regulatory considerations, technical considerations, funding potential, and joint ownership. (TR 589-591) Staff examined each of these factors, as well as fuel diversity, reliability, renewable generation sources, and conservation, to determine the acceptability of FPL's analysis of the long-term feasibility of completing the project.

Staff believes that the forecasts, cost estimates, and cost-effectiveness analyses are necessary filing requirements to assess FPL's 2013 analysis of the feasibility of completing the TP Project. In addition, staff reviewed regulatory and technical aspects of the project. These elements provide a holistic perspective for staff's recommendation regarding the acceptability of FPL's detailed long-term feasibility analysis.

## **Economic Analysis**

## Updated Fuel Forecast

FPL explained it developed its updated fuel price forecasts from the same industryaccepted sources FPL has used since the need determination proceeding. The Company blended natural gas pricing data from the February 4, 2013 Henry Hub natural gas commodity prices and the most current projections from The PERA Energy Group for 2013 through 2030. Beyond 2030, FPL used the real rate of escalation from the Energy Information Administration. In addition, nominal price forecasts were prepared for transportation cost. The projected transportation costs were added to commodity cost projections to provide delivered price forecasts. (EXH 76, Bates Nos. 98-99)

<sup>&</sup>lt;sup>11</sup> Order No. PSC-08-0237-FOF-EI, issued April 11, 2008, in Docket No. 070650-EI, <u>In re: Petition to determine</u> need for Turkey Point Nuclear Units 6 and 7 electrical power plant, by Florida Power & Light Company.

<sup>&</sup>lt;sup>12</sup> <u>Id.</u>; Order No. PSC-09-0783-FOF-EI, issued November 19, 2009, in Docket 090009-EI, <u>In re: Nuclear cost</u> recovery clause, p. 13; Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket 100009-EI, <u>In re: Nuclear cost recovery clause</u>, p. 15; and Order No. PSC-12-0650-FOF-EI, issued December 11, 2012, in Docket 120009-EI, <u>In re: Nuclear cost recovery clause</u>, p. 51.

FPL's fuel cost forecasting methodology provided a high, medium, and low cost projection. While future fuel costs are inherently uncertain, the range FPL developed offers a plausible expectation that actual prices will fall somewhere within the range. Staff believes it is reasonable to accept FPL's updated fuel cost data in this proceeding. Figure 5-1 depicts the price forecasts for the medium range of natural gas used from the 2009 NCRC proceeding through this year's filing to support FPL's feasibility analysis. Staff notes that natural gas price forecasts have trended slightly downward each year until this year's forecast showing an increase in later years.

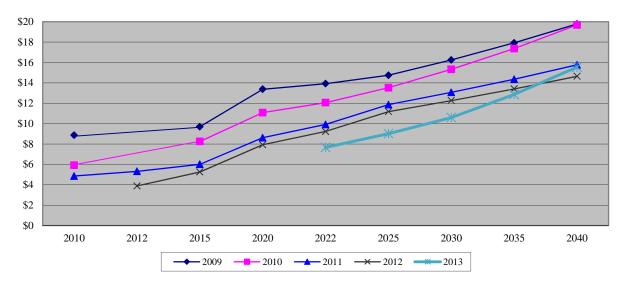


Figure 5-1: Forecasted Delivered Natural Gas Prices – Medium Fuel Forecast (\$/MMBTU, \$Nominal)

While none of the parties contested the reasonableness or credibility of FPL's fuel forecast, SACE asserted that FPL failed to take into account depressed natural gas costs, among other factors, in performing its feasibility analysis. (SACE BR 7) FPL witness Sim provided evidence that the Company's natural gas price forecast was taken into account. He explained that FPL's adjustment of the estimated savings over the life of the project, from \$58 billion last year to \$78 billion this year, was due to higher projected gas costs in the years after 2035. (TR 818-819) The higher forecasted prices after 2035 are shown in Figure 5-1 above as well. Absent in SACE's argument was any evidence to suggest depressed natural gas prices make the TP Project not cost-effective.

SACE also asserted that FPL witness Sim failed to state which fuel scenario is most probable. (SACE BR 15) As stated above, however, staff believes the inherent uncertainty of predicting the future is adequately addressed by FPL's use of a range of fuel price forecasts. The range, developed from projections of industry-accepted sources, provides a comfortable level of confidence that actual future commodity prices will fall somewhere within the range provided.

<sup>(</sup>Order PSC-12-0650-FOF-EI, p. 49; EXH 53)

SACE, as it did last year,<sup>13</sup> argued that the recovery should be denied because FPL failed to take depressed natural gas prices into account in its feasibility analysis. (SACE BR 3, 7)

Staff rejects SACE's contention that FPL failed to consider the depressed forecasted gas prices. FPL's analysis shows that both the total cost difference between the competing plans and breakeven costs have declined due, in part, to lower forecasted gas prices. In addition, FPL's adjustment to savings over the life of the project demonstrated that FPL has taken into account the depressed natural gas costs. Staff believes it is reasonable to accept FPL's updated fuel cost data in this proceeding.

#### Updated Environmental Forecast

The Florida Statutes require the Commission to consider air emission compliance costs in evaluating new electrical generation.<sup>14</sup> The absence of greenhouse gas emissions continues to be a benefit associated with nuclear generation. Each increase in projected environmental compliance costs for emitting sulfur dioxide (SO<sub>2</sub>), nitrous oxide (NOx), and carbon dioxide (CO<sub>2</sub>) have the effect of making a nuclear plant more cost-effective as compared to fossil-fueled generation, such as gas, coal, and oil.

The updated environmental cost forecasts FPL submitted were developed with consultant ICF, the same industry-accepted source FPL has used since the need determination proceeding. ICF saw nothing that has occurred on the legislative or regulatory fronts that would prompt a change from projections made last year. (EXH 74, Bates No. 103) Table 5-1 below depicts the price forecasts for the medium range of environmental costs (ENV II) used from the 2009 NCRC proceeding through this year's filing to support FPL's feasibility analysis.

Selected Years	Yearly Forecasted SO2 Compliance Cost (\$/ton)					
rears	2009	2010	2011	2012	2013	
2015	\$2,013	\$2,176	\$58	\$246		
2020	\$3,164	\$3,257	\$66	\$64		
2022				\$67	\$67	
2025	\$4,988	\$4,882	\$74	\$72	\$72	
2030	\$4,453	\$5,319	\$84	\$82	\$82	
2035	\$3,691	\$4,293	\$95	\$93	\$93	
2040	\$2,653	\$3,278	\$108	\$105	\$105	

Table 5-1: Forecasted Environmental Compliance Costs (\$/ton, \$Nominal)

(Continued on next page)

<sup>&</sup>lt;sup>13</sup> <u>See</u> Order No. PSC-12-0650-FOF-EI, issued December 11, 2012, in Docket 120009-EI, <u>In re: Nuclear Cost</u> <u>Recovery Clause</u>, p. 49.

<sup>&</sup>lt;sup>14</sup> Section 403.519 (4)(b)(3), F.S.

Selected	Yearly Forecasted NOx Compliance Cost (\$/ton)					
Years	2009	2010	2011	2012	2013	
2015	\$1,375	\$2,071	\$522	\$509		
2020	\$2,162	\$3,100	\$590	\$576		
2022				\$605	\$605	
2025	\$3,408	\$1,257	\$668	\$652	\$652	
2030	\$1,545	\$1,085	\$756	\$737	\$737	
2035	\$0	\$1,228	\$855	\$834	\$834	
2040	\$0	\$1,389	\$968	\$944	\$944	

#### Table 5-1 (continued)

Selected	Yearly Forecasted CO2 Compliance Cost (\$/ton)					
Years	2009	2010	2011	2012	2013	
2015	\$17	\$20	\$0	\$0		
2020	\$27	\$30	\$32	\$0		
2022				\$0	\$0	
2025	\$43	\$44	\$47	\$11	\$11	
2030	\$67	\$67	\$68	\$21	\$21	
2035	\$101	\$100	\$98	\$38	\$38	
2040	\$149	\$149	\$141	\$64	\$64	

(Order PSC-12-0650-FOF-EI, p. 50; EXH 54)

In the 2011 NCRC proceeding, witness Sim explained the dramatic drop in emission compliance costs between 2010 and 2011. The reductions were due to projections that utilities would add control devices for these emissions in response to Environmental Protection Agency rules. This, in turn, produces more emission allowances on the market in future years, thereby reducing the value of the allowances.<sup>15</sup>

Last year, witness Sim responded to a cross examination question about the trend of carbon dioxide emission costs:

Yes, I think there are two trends for  $CO_2$  that were certainly much different this year than what we saw in 2011. Number one, the  $CO_2$  costs are assumed to start significantly later than what we have seen before, and that the costs, on a year-by-year basis, are lower than what they were in 2011.<sup>16</sup>

None of the intervenors contested the credibility or accuracy of FPL's updated environmental cost forecasts. SACE, however, suggested, but did not offer any evidence, that FPL failed to take into account that there currently is an absence of a cost for carbon dioxide emissions. (SACE BR 7) Witness Sim's responses to SACE's questions at hearing demonstrated that FPL considered the cost of  $CO_2$  emissions in its analysis. He said he saw a proposed carbon

<sup>&</sup>lt;sup>15</sup> See Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket 110009-EI, <u>In re: Nuclear Cost</u> <u>Recovery Clause</u>, p. 13.

<sup>&</sup>lt;sup>16</sup> See Order No. PSC-12-0650-FOF-EI, issued December 11, 2012, in Docket 120009-EI, <u>In re: Nuclear Cost</u> <u>Recovery Clause</u>, p. 50.

tax bill by Senators Boxer and Sanders, and a discussion draft document by Representative Waxman and Senator Whitehouse also calling for a carbon tax. Witness Sim also stated, "[W]ith President Obama's memorandum to the EPA urging action on  $CO_2$  and giving explicit timetables between now and 2016, I would say it is probably more likely that we are going to see non-zero  $CO_2$  costs than at this time last year for sure." (TR 799-802)

Staff rejects SACE's contention that FPL failed to consider the decline in environmental costs. FPL's analysis of the cost-effectiveness of completing the TP Project demonstrated that changes in the forecasted cost of emissions were considered. Staff believes it is reasonable to accept FPL's environmental cost projections in this proceeding.

#### Updated Project Cost Estimate

FPL's total in-service cost estimate for the Turkey Point 6 and 7 Project is in the range of \$12.7 billion to \$18.5 billion. (TR 586) This estimated range includes carrying costs of about \$5.0 billion (EXH 74, Bates No. 62) and sunk costs of \$192 million. (EXH 57) Considering FPL's 2013 non-binding overnight capital cost estimate range of \$3,659/kW to \$5,320/kW, there is a 17.2 percent increase from FPL's estimated maximum cost in the 2007 need determination proceeding and a 17.7 percent increase in the minimum cost. The history of cost range estimates is shown in the figure below.

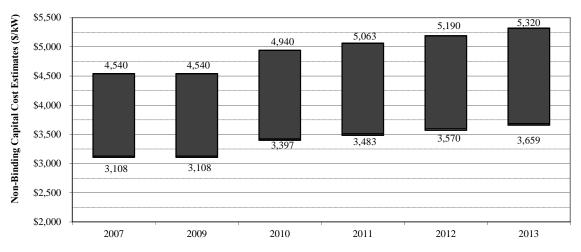


Figure 5-2: Range of Non-Binding Overnight Capital Cost Estimates (\$/kW)

(Order No. PSC-12-0650-FOF-EI, p. 51; TR 586)

SACE challenged FPL cost estimates by arguing:

After five years, the best nonbinding cost estimate that the Company can offer the Commission is a range from \$12.7 billion to \$18.5 billion for the proposed project. One can consider this range as indicating uncertainty of the costs of construction moving forward.

(SACE BR 18-19)

FPL witness Scroggs explained the rationale and necessity of estimating a cost range at the current stage of the project:

The primary factors affecting the total project cost will be the actual labor and materials costs experienced during the Preparation and Construction periods. The certainty around these costs will increase as preceding projects move through the early stages of construction and as FPL negotiates the principal contracts for engineering, procurement, and construction of the project. The pace of expenditures is also a critical factor that will impact total project costs. Escalation of future costs and carrying costs on expended funds are time related factors.

#### (TR 588-589)

SACE also asserted that FPL's range of overnight capital costs and the non-binding total project cost range were not credible. SACE cited a Concentric Energy Advisors' (Concentric) review of AP-1000 projects to demonstrate that the low end of the estimated overnight capital cost range was not realistic. SACE then dismissed the low end of the range estimate and asserted, "[T]he realistic projected cost today of the project is an overnight cost of \$5,320 per installed kW and \$18.5 billion total project cost." (SACE BR 9)

After study of the Concentric review, staff observes that the review of AP-1000 projects was intended to produce:

a range of costs that provide context for FPL's cost estimate. FPL's 2013 highend total cost estimate of \$18.5 billion for PTN 6 & 7 [the TP Project] is within the range of \$14.1 billion to \$21.4 billion that is generated using overnight costs from the other AP1000 projects.

(EXH 74, Bates No. 80) The review also stated that the project cost shown for the TP Project came from the high end of the range estimated by FPL. None of the other project cost estimates were indicated as having come from a range of costs, or not, as the TP Project did. In addition, Staff noted that the lowest total projected cost shown for the V.C. Summer project, \$14.1 billion, did not include associated transmission costs. Meanwhile, the cost for the TP Project did include transmission costs. (EXH 74, Bates No. 78) Staff's conclusion is that the Concentric review is not strictly an apples-to-apples comparison of costs, but rather simply a means of rough comparison as the authors seemed to have intended. As such, staff believes it is inappropriate to draw any conclusions from the Concentric reviews about the low end of FPL's cost estimate range, such as declaring it unrealistic as SACE did.

FPL used its updated project cost estimate in conducting its cost-effectiveness analysis below. Staff believes FPL's cost estimate is reasonable. Results of the analysis demonstrate that the cost-effectiveness of the project has declined in comparison with the competing plan without nuclear generation; however, the project remains cost-effective.

#### Project Cost-Effectiveness

FPL conducted its cost-effectiveness analysis using its updated fuel and environmental compliance costs, projected in-service dates of 2022-2023, and overnight capital cost ranging from \$3,659/kW to \$5,320/kW. SACE questioned the projected in-service dates. SACE cited the lack of a construction contract, delays in obtaining a Combined Operating License (COL), impacts of federal budget sequestration, delays and cancellations in other AP-1000 projects, as well as lack of co-owners, an expiring forging agreement, and no financing as rationale for doubting FPL's projected in-service dates. (SACE BR 10-11) FPL asserted it used in-service dates that are the "earliest practicable" in-service dates, fully acknowledging that future events could impact the project schedule. (FPL BR 14) Staff agrees with SACE that the TP Project is still subject to uncertainty in numerous areas. However, FPL's response to a staff interrogatory demonstrated that delays of 5 or 10 years to the in-service dates would not impact the cost-effectiveness. (EXH 76, Bates Nos. 199-202) Staff is satisfied that FPL's currently projected in-service dates, do not render the Company's analysis a failure.

FPL's assessment of the cost-effectiveness of the TP Project once again relied on the same breakeven analysis it has used since the need determination. This methodology first requires calculation of the cumulative present value of revenue requirements (CPVRR) for each of the alternative resource plans, the plan with new nuclear units and the plan with a combined cycle unit as a replacement for the nuclear units (Columns 3 and 4 in Table 5-2 below). For the resource plan with the TP Project, a capital cost of zero was assumed. Next the CPVRR cost differential between the resource plans for each scenario was calculated (Column 5 in Table 5-2 below). The CPVRR cost differentials for each scenario were then divided by the CPVRR cost equivalent of \$1/kW of new nuclear capital cost, \$2,453 million in 2013 dollars. (EXH 74, Bates Nos. 118-119) The resulting value is a breakeven cost in terms of \$/kW of capital cost for each scenario (Column 6 in Table 5-2 below). The results of this calculation are an estimate of the highest capital costs at which nuclear generation would still be cost-effective compared to the combined cycle alternative over the 40-year life of the project. (TR 805)

FPL performed its analysis under a wide range of scenarios which combined varying fuel cost forecasts (low, medium, and high) and environmental compliance cost projections (ENV I-III). ENV I represented a low compliance cost scenario, while ENV III represented a high compliance cost scenario. Seven different fuel/environmental cost scenarios were analyzed for each alterative to the TP Project. The projected present value savings over the study period for each scenario was then used to calculate a breakeven capital cost estimate of what the nuclear units could cost and still produce net savings over the study period when compared to the combined cycle units. Each breakeven value was then compared to the overnight capital cost range of \$3,659/kW-\$5,320/kW to determine the likelihood of the nuclear project producing a net savings over the study period. (EXH 86) If the breakeven values were higher than the current capital cost-estimates, then the nuclear plants would provide net savings over the life of the units compared to alterative base load units. Staff believes that FPL's approach in performing this analysis remains reasonable.

The results of the breakeven analysis, shown in Table 5-2, demonstrated that the TP Project remained cost-effective compared to the alternative combined cycle unit. The results in

five of the seven scenarios show breakeven nuclear capital costs are above FPL's estimated range of costs, which demonstrated a high likelihood of cost-effectiveness. Staff notes that both the low fuel/low environmental and medium fuel/low environmental cost scenarios breakeven nuclear capital costs, \$4,217/kW and \$5084/kW respectively, were within FPL's estimated range of costs, \$3,659/kW to \$5,320/kW. This indicated a possibility that the nuclear project may not be cost-effective if the capital costs approach the upper limit of the range and long-term fuel and environmental costs remain relatively low for the duration of the analysis period.

Table 5-2: 2013 Breakeven Analyses Results for the TP Project   Total Costs, Total Cost Differentials, and Breakeven Costs for All   Fuel and Environmental Compliance Cost Scenarios in \$2013							
(1)	(2)	(millions (3)	, CPVRR, 201	(5)	(6)		
(1)	(2)	(5)	(4)	= (3) - (4)	(0)		
	Environmental	Total Cost	s for Plans	Total Cost Difference	Breakeven		
Fuel	Compliance			Plan with Turkey Point 6 & 7	Nuclear		
Cost	Cost	Plan with	Plan without	Project minus Plan without	Capital Costs		
Forecast	Forecast	Turkey Point	Turkey Point	Turkey Point	(\$/kw in \$2013)		
		6 & 7 Project	6 & 7 Project	6 & 7 Project			
High Fuel Cost	Env I	166,689	181,279	(14,590)	5,948		
High Fuel Cost	Env II	173,386	188,772	(15,386)	6,273		
High Fuel Cost	Env III	182,185	198,472	(16,287)	6,640		
Medium Fuel Cost	Env I	146,191	158,661	(12,470)	5,084		
Medium Fuel Cost	Env II	152,803	166,068	(13,265)	5,408		
Medium Fuel Cost	Env III	161,499	175,667	(14,168)	5,776		
Low Fuel Cost	Env I	125,585	135,927	(10,342)	4,217		

#### (EXH 59)

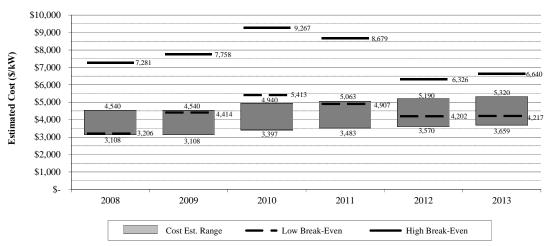
Staff notes that FPL's breakeven analyses for 2013 compared to 2012, in Table 5-3 below, demonstrated that the magnitude and range of the breakeven nuclear capital costs have increased. The low breakeven cost increased 0.4 percent and the high breakeven cost increased 5 percent. Meanwhile, the range increased 14.1 percent. However, the 2013 analysis showed the project was cost-effective in the same five of the seven scenarios as the 2012 analysis.

Total Costs, Total Cost Differentials, and Dicakeven Costs for An									
Fuel and Environmental Compliance Cost Scenarios in \$2012									
	(millions, CPVRR, 2011 - 2063)								
(1)	(1) (2)		(4)	(5)	(6)				
				= (3) - (4)					
	Environmental	Total Cost	s for Plans	Total Cost Difference	Breakeven				
Fuel	Compliance			Plan with Turkey Point 6 & 7	Nuclear				
Cost	Cost	Plan with	Plan without	Project minus Plan without	Capital Costs				
Forecast	Forecast	Turkey Point	Turkey Point	Turkey Point	(\$/kw in \$2012)				
		6 & 7 Project	6 & 7 Project	6 & 7 Project					
High Fuel Cost	Env I	181,107	194,742	(13,635)	5,669				
High Fuel Cost	Env II	188,659	203,031	(14,372)	5,975				
High Fuel Cost	Env III	198,505	213,719	(15,214)	6,326				
Medium Fuel Cost	Env I	161,938	173,815	(11,877)	4,938				
Medium Fuel Cost	Env II	169,304	181,917	(12,613)	5,244				
Medium Fuel Cost	Env III	178,909	192,361	(13,452)	5,593				
Low Fuel Cost	Env I	143,246	153,354	(10,108)	4,202				

Table 5-3: 2012 Breakeven Analyses Results for the TP Project Total Costs, Total Cost Differentials, and Breakeven Costs for All Fuel and Environmental Compliance Cost Scenarios in \$2012 (million: CBVBB 2011 2063)

(Order No. PSC-12-0650-FOF-EI, p. 52)

Below, Figure 5-3 portrays the migration of FPL's estimated breakeven costs and the estimated project costs for each year since the 2008 need determination. If the estimated capital cost range increased into the range of the breakeven costs, the project becomes less cost-effective. In 2012, the upper limit of breakeven cost was 22 percent greater and the lower limit was 19 percent below the highest estimated capital costs. In 2013, the upper limit of breakeven costs was 25 percent greater and the lower limit was 21 percent below the highest estimated that the range and magnitude of breakeven costs have increased since 2012. The lowest two 2013 breakeven costs being within the range of the estimated costs, as mentioned previously, suggested that the project may not be cost-effective if long-term fuel and environmental costs remain low. Staff notes, however, that 2013 is not the first year the lowest breakeven cost has been within the range of estimated costs. As the figure shows, the same situation was reported in the 2008 need determination, and the 2009, 2011, and 2012 NCRC proceeding.





As discussed above, SACE asserted that FPL failed to consider the depressed cost of natural gas and the absence of a cost for carbon dioxide emissions in FPL's economic analysis. SACE argued that this shortcoming should prompt the Commission to reject FPL's long-term feasibility analysis and deny cost recovery. (SACE BR 7) Other parties to the proceeding did not contest FPL's cost-effectiveness analysis methodology or results.

Staff believes that SACE's argument is unpersuasive. FPL clearly considered projected costs of natural gas and emissions in its feasibility analysis, as evidenced by the reduced life-cycle savings, and decline in cost-effectiveness. Nonetheless, the TP Project remains cost-effective at this time. Staff recommends that the Commission should accept FPL's cost-effectiveness analysis.

#### Fuel Diversity, Reliability, Renewables, and Conservation

Section 403.519, F.S., requires the Commission to consider fuel diversity in determining the need for new power plants, nuclear or otherwise. Although the need determination

<sup>(</sup>Order No. PSC-12-0650-FOF-EI, p.54; EXH 57; and EXH 59)

proceeding for the TP Project was completed in 2008, fuel diversity remains a priority of the Legislature. As witness Sim stated, "Diversification also improves system reliability." (TR 661) The TP Project, therefore, remains a desirable means of reducing over-reliance on one fuel (natural gas) for power generation and the enhanced overall system reliability that can be derived from fuel diversity.

The two resource plans used by the Company for its 2013 feasibility analysis of the TP Project were identical through 2021, but begin to differ in 2022. (EXH 58) The first resource plan identifies the TP Project for meeting the Company's future generation needs from 2022 through 2024, and the other plan identified two natural gas-fired combined cycle plants as the generating resource. In his testimony, witness Sim discussed fuel diversity as an advantage of the TP project. (TR 681-682) In 2024, the year when either of the two resource plans would be implemented, the fuel mix percentage between nuclear generation and natural gas generation if the utility meets its need with two additional combined cycle plants was 21 percent and 71 percent respectively. (TR 681) However, if the need is met with nuclear generation, the fuel mix will be approximately 35 percent nuclear and 58 percent natural gas, or 14 percent less reliance on natural gas generation. Staff further notes that additional transmission would need to be constructed if the utility selected meeting its 2024 need with natural gas fired combined cycle plants. (TR 681)

SACE contended that FPL's resource planning model was flawed, because DSM was omitted as an alternative resource. The FPL resource planning model was limited to the TP Project and a natural gas combined cycle power plant. SACE contended that the full potential of energy efficiency is never considered because it was constrained by certain cost-effectiveness tests. Moreover, SACE stated that energy efficiency measures never competed head-to-head with the TP Project to determine which can meet projected demand more cost-effectively. (SACE BR 2-3, 13-14; TR 665, 672, 767, 774-776)

The SACE brief also asserted that economic feasibility of the TP Project also suffers from bias in FPL's feasibility analysis. SACE claimed FPL lacked a commitment to energy efficiency as a resource in meeting projected demand. SACE pointed to witness Sim's testimony about the reliability benefit of resource diversification. Yet only 0.2 percent of demand was met through energy efficiency. (TR 759, 784) Furthermore, SACE claimed that FPL's feasibility analysis was biased toward resources that maximize shareholder value, such as power plants that earn a rate of return while energy efficiency earns no rate of return. (SACE BR 14-15)

FPL, in its brief, countered SACE's challenge of the amount of DSM that FPL assumed in its 2013 resource planning work, including its 2013 feasibility analysis for the TP Project. FPL contended its DSM assumptions were shown by witness Sim to be reasonable. (FPL BR 15) FPL asserted it assumed an amount of DSM consistent with the DSM plan approved by the Commission for FPL. (FPL BR 15) Further, FPL assumed an additional amount of DSM after the term of its current DSM goals of 100 MW per year for six years. (TR 672) In total, FPL witness Sim claimed it assumed roughly 300 MW of load control from FPL's DSM programs, 900 MW of energy efficiency, and 1,800 MW of energy efficiency from federal and state standards over the next 10 years. (TR 767-768) FPL noted that SACE focused on energy efficiency, specifically current gigawatt hour savings, which "have absolutely no relationship to the timing or magnitude of [FPL's] resource need." (TR 783) The addition of incremental energy efficiency also has the potential to increase customers' fuel costs. (TR 784-785) Moreover, witness Sim stated, there simply is not enough cost-effective DSM to be a viable alternative to the TP Project or a natural gas combined cycle power plant. (TR 773) Witness Sim testified that FPL has been implementing considerable amounts of DSM since 1980, and has been recognized for its DSM accomplishments over the years. To date, FPL has avoided the need for more than 14 generating units of 400 MW each. (TR 825) FPL argues that SACE's accusations that FPL is not committed to pursuing DSM resources are unsupported and without merit. (FPL BR 15)

FPL asserted that alternatives to the TP Project were properly considered during the need determination for the TP Project. (FPL BR 15) In this docket, in addition to consideration of DSM, FPL also provided insight to its consideration of renewable forms of generation in response to staff interrogatories. FPL was asked for an analysis concerning diversifying FPL's fuel mix by adding renewables in place of the firm generation the TP Project would provide. Witness Sim responded that, in general, the Company views renewables not as an alternative to, but as a complement to firm capacity. FPL stated that to be considered a viable alternative to the TP Project, a renewable energy resource would have to provide 2.200 MW of firm capacity. Witness Sim further explained that biomass could be considered a firm capacity option (as opposed to wind and solar), but he did not believe 2,200 MW of untapped biomass potential existed in its entire service territory or the Southeastern Florida region. In Florida, most other renewable energy options, including solar and wind, are not firm capacity options. These sources, FPL concluded, "cannot be considered as viable alternatives to Turkey Point 6 & 7." (EXH 76, Bates No. 130) With specific regard to wind generation, FPL's assessment of wind potential in the state led it to two conclusions: (1) "Florida has very limited potential for wind generation," and (2) "due to the risk of hurricanes and the amount of lightning storms, intensity and frequency, the costs associated with wind generation in Florida is significantly higher than in other regions of the country." (EXH 76, Bates No. 131)

Review of the Commission's most recent proceeding on FPL's DSM program<sup>17</sup> and FPL's observations on renewable generation resources led staff to be persuaded by FPL's arguments. The constraint to the amount of DSM FPL was approved to implement arose from the Commission's concern for the rate impact to FPL's ratepayers, not any lack of commitment to DSM by FPL. In fact, the DSM program FPL proposed was projected to surpass the energy savings goals set by the Commission and provide more savings than the DSM plan FPL originally submitted. Furthermore, the constraint of cost-effectiveness tests that SACE criticizes is established by statute and rule, which both FPL and the Commission must adhere to in developing DSM programs.<sup>18</sup> Staff also accepts FPL's assessment that generation with renewable resources cannot be considered a viable alternative for the TP Project.

<sup>&</sup>lt;sup>17</sup> See Order No. PSC-11-0346-PAA-EG, issued August 16, 2011, in Docket No. 100155-EG, In re: Petition for approval of demand-side management plan of Florida Power & Light Company. <sup>18</sup> Section 366.82 (3)(a)(b), F.S. and Rule 25-17.0021 (4)(j), F.A.C.

#### **Regulatory Considerations**

#### Permits and Licenses

According to witness Scroggs, in 2012, FPL made measurable progress in regulatory processes towards obtaining necessary licenses, permits, and approvals. FPL achieved key milestones in the Florida Site Certification Application (SCA) process and made significant progress in the NRC licensing process and the U.S. Army Corps of Engineers (USACE) permitting process. (TR 523-524, 527) In 2013, more progress was made in the SCA process leading to the SCA hearing in July and August. (TR 583)

Additionally, FPL worked with the NRC and USACE staff to complete outstanding information needed to support production of the Safety Evaluation Report and draft Environmental Impact Statement. (TR 582)

Staff believes that FPL has demonstrated it has an effective process in place to provide its management with an ongoing, detailed analysis of the uncertainties and risks that could impact its permitting, licensing, approval, and certifications necessary for project success. Staff recommends that the TP Project is feasible from a regulatory standpoint.

#### **Technical Considerations**

Closely related to regulatory issues are some technical issues with the Westinghouse AP-1000 nuclear power units planned for the TP Project. FPL witness Scroggs mentioned other AP-1000 projects already underway in his testimony. These projects include China's Sanmen Units 1 & 2, and Haiyang Units 1 & 2, all AP-1000 technology. Projects underway in the U.S. include Plant Vogtle in Georgia, and V.C. Summer Nuclear Station in South Carolina. (TR 574 – 575) Witness Scroggs described these projects as demonstrating progress on next generation nuclear construction. (TR 575) However, the witness went on to state that "milestones to be achieved in the next two years confirms FPL's choice to defer preparation phase activities until greater certainty can be attained as a way to control implementation risks and incorporate lessons learned." (TR 575)

As detailed in response to staff discovery, FPL learned of a change in rebar design for the AP-1000 reactor concrete foundation. (EXH 74, Bates No. 75) This change in rebar design resulted in the NRC requiring a license amendment request by Southern Company for its new Plant Vogtle Nuclear Units. FPL went on to state that "this event reinforces the importance of a completed design and established the precedent for how design modifications should be interpreted and handled during the course of unit construction." (EXH 74, Bates No. 75) Staff agrees with this assessment.

None of the intervenors contested any technical aspects of the project. Staff believes the evidence supports that the TP Project is technically feasible.

#### **Funding Potential**

In addition to elements of economic feasibility, staff believes availability of funding for the project should also be considered. In response to a staff interrogatory, FPL provided additional insight to an element of funding requirements. The provisions of Section 366.93, F.S., for cost recovery for construction of nuclear power plants will save FPL customers between \$7.4 billion and \$10.6 billion due to early payment of AFUDC rather than the traditional process of waiting until a power plant begins commercial service to recover costs. (EXH 74, Bates No.61)

FPL witness Scroggs testified that the Company's ability to obtain financing for the TP Project at a reasonable cost is a factor that affects the long term feasibility of the project. (TR 590) In staff discovery, the Company was asked what it considers financing at a "reasonable cost." Its response was "FPL considers 'reasonable cost for financing' as a cost that is consistent with our existing bond credit rating (at the time of financing)." (EXH 74, Bates No. 84) Staff notes that the total TP Project has not been fully financed. However, FPL witness Scroggs said, "Financing will be determined as the project proceeds through approvals to construction." (TR 591)

Staff views FPL's current access to capital markets as confirmation of continued funding feasibility.

#### Joint Ownership

The Company was asked through staff discovery for a status update as to the possibility of entering into joint ownership arrangements for the TP Project since its last NCRC proceeding. FPL stated that it considers entering into ownership agreements at this time premature as it would negatively impact the licensing process with the NRC. However, the Company has developed a Memorandum of Understanding with Orlando Utilities Commission (OUC) that describes an option agreement or consideration for a portion of the project. However, FPL makes clear that this agreement does not constitute an ownership position by OUC, and as such does not conflict with the ongoing TP Project licensing process. (EXH 74 Bates No. 117)

The Commission's need determination order directed the establishment of Docket No. 080271-EI to monitor the status of joint ownership negotiations among interested parties. The order directed, "FPL will report the status of such ongoing status discussions to the FPSC every quarter thereafter."<sup>19</sup>

The project is still in its early stages with uncertainties, associated risks, and pending NRC licensing. Given the current status of the project, staff believes that the lack of joint ownership should not be deemed a fatal flaw to project feasibility at this time.

<sup>&</sup>lt;sup>19</sup> <u>See</u> Order No. PSC-08-0237-FOF-EI, Issued April 11, 2008, in Docket No. 070650-EI, <u>In re: Petition to</u> determine need for Turkey Points Nuclear Units 6 & 7 electrical power plant, by Florida Power and Light Company, pp. 3-4.

#### **CONCLUSION**

Staff believes that analysis of the feasibility of completing the TP Project should be based on multiple factors, not just one set of assumptions and estimates. In the 2013 NCRC proceeding, staff recommends the evidence demonstrated that FPL fully considered the economic, regulatory, technical, funding, and joint ownership considerations impacting the feasibility of the project. While continuing uncertainty exists in virtually all these areas, staff recommends that completion of the TP Project appears feasible at this time.

**<u>Issue 5A</u>**: What is the current total estimated all-inclusive cost (including AFUDC and sunk costs) of the proposed Turkey Point Units 6 & 7 nuclear project?

**<u>Recommendation</u>**: The current total estimated all-inclusive cost (including AFUDC and sunk costs) of the proposed Turkey Point Units 6 & 7 nuclear project ranges from \$12.7 billion to \$18.5 billion as identified in Issue 5. (Higgins, Lawson)

#### **Position of the Parties**

<u>FPL</u>: FPL's current non-binding cost estimate range for Turkey Point 6 & 7 is \$3,659/kW to \$5,320/kW in overnight costs, or \$12.7 billion to \$18.5 billion including AFUDC, as stated in the May 1, 2013 direct testimony of Steven Scroggs.

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

<u>SACE</u>: The current total estimated all inclusive cost will exceed FPL's estimate of \$18.5 billion as evidence by the Findings of Fact below.

**<u>FRF</u>**: No position.

<u>Staff Analysis</u>: All relevant matters of Issue 5A are addressed in Issue 5, subsection titled "Updated Project Cost Estimates." Consequently, there are no new or different matters to address.<sup>20</sup>

<sup>&</sup>lt;sup>20</sup> Pursuant to FPL Stipulation (Attachment A), the Parties' waived their rights regarding final Post-Hearing Briefs on this Issue. The Commission approved the Parties Stipulation. (TR 262)

**Issue 5B**: What is the current estimated planned commercial operation date of the planned Turkey Point Units 6 & 7 nuclear facility?

**Recommendation**: The current estimated commercial operation dates of the planned Turkey Point Units 6 & 7 nuclear facility are 2022 for Unit 6, and 2023 for Unit 7 as identified in Issue 5. (Higgins, Lawson)

#### **Position of the Parties**

<u>FPL</u>: For planning purposes, FPL's current estimated commercial operations dates for Turkey Point Units 6 & 7 are 2022 and 2023, respectively, as stated in the May 1, 2013 direct testimony of Steven Scroggs. (Scroggs)

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

<u>SACE</u>: The current estimated planned commercial operation dates of the planned Turkey Point Unit 6 & 7, 2022 and 2023, respectively, will occur further in time, if at all as evidenced by the finding of fact below.

**<u>FRF</u>**: No position.

<u>Staff Analysis</u>: All relevant matters of Issue 5B are addressed in Issue 5, subsection titled "Project Cost Effectiveness." Consequently, there are no new or different matters to address.<sup>21</sup>

<sup>&</sup>lt;sup>21</sup> Pursuant to FPL Stipulation (Attachment A), the Parties' waived their rights regarding final Post-Hearing Briefs on this Issue. The Commission approved the Parties Stipulation. (TR 262)

**Issue 6**: What are the jurisdictional amounts for Turkey Point 6 & 7 project activities that are related to obtaining a combined license from the Nuclear Regulatory Commission or certification during 2013 and 2014?

**<u>Recommendation</u>**: Staff recommends that the Commission find FPL's Turkey Point 6 & 7 jurisdictional project costs (related to obtaining a COL from the NRC or certification) are \$33,838,181 for 2013 and \$24,151,118 for 2014. (Laux)

### **Position of the Parties**

**FPL**: FPL is only seeking recovery of Turkey Point 6 & 7 costs related to obtaining a COL from the NRC and certification in this NCR proceeding. Accordingly, FPL's jurisdictional 2012 amount is \$31,954,959, 2013 amount is \$33,838,181, and 2014 amount is \$24,151,118, including carrying costs. (Scroggs, Powers)

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

<u>SACE</u>: FPL is not entitled to recover costs related to obtaining a combined operating license from the Nuclear Regulatory Commission nor have such projected costs deemed reasonable because its activities since January 2012 fail to demonstrate the requisite intent to build the TP project and it has failed to complete and properly analyze a realistic feasibility analysis.

**<u>FRF</u>**: No position.

<u>Staff Analysis</u>: This factual issue identifies FPL's jurisdictional cost amounts for TP Project activities that are related to obtaining a combined license from the Nuclear Regulatory Commission or certification during 2013 and 2014. The issue is limited to identifying the amount associated with the activity in question. Any other issues or concerns over the level of recovery or the reasonableness of these costs are addressed by staff in other issues.

#### PARTIES' ARGUMENTS

## <u>FPL</u>

FPL argued that in 2013 it "continued to focus on obtaining the necessary licenses, authorizations, and approvals needed for Turkey Point 6 & 7." (FPL BR 19) FPL witness Scroggs testified that FPL's 2013 and 2014 cost recovery requests, as in past years, include only amounts that are associated with the licensing activities currently underway. (TR 560) Witness Scroggs further testified that all the costs identified are related to obtaining the licenses and permits. (TR 561) Accordingly, FPL stated that the jurisdictional 2013 amount of \$33,838,181, including carrying costs, and the 2014 amount of \$24,151,118, including carrying costs, represents the entirety of FPL's project costs related to obtaining a combined license from the NRC for the years in question. (FPL BR 16)

# <u>SACE</u>

In support of its position, SACE argued that the TP Project remains infeasible and that the Company has not met the requisite intent to build the proposed two reactors. (SACE BR 2) In addition, SACE argued that FPL has failed to complete and properly analyze a realistic feasibility analysis and has not met its burden of proving that the project is economically feasible. (SACE BR 2) SACE further argued that FPL's pursuit of preconstruction activities not related to pursuit of a COL, without first obtaining a COL from the NRC and without petitioning the Commission for approval of such activities, is in violation of Chapter 2013-184, Laws of Florida, 366.93(2)(b), (c), F.S., [sic]. (SACE BR 23)

# ANALYSIS

The only party opposing FPL's factual position in this issue was SACE. Pursuant to the parties' stipulation, FPL and SACE filed post-hearing briefs. (EXH 112; Attachment A) SACE's brief on this issue referred to arguments it made in Issue 4 regarding FPL's intent to complete the TP Project, and in Issue 5, regarding the reasonableness of FPL's analysis of the feasibility of completing the TP Project. (SACE BR 22) FPL stated that SACE's arguments with respect to what FPL should or should not be permitted to recover, given questions of intent or project feasibility, are misplaced in this factual issue. (FPL BR 16) Staff agrees, and notes that SACE's questions concerning FPL's intent and the feasibility to complete the project are addressed in Issue 4 and 5, respectively.

However, staff does note that SACE argued in Issue 9 that FPL's pursuit of preconstruction activities that are not related to pursuit of a COL is in violation of Section 366.93(3)(b) and (c) F.S., and therefore, costs for those activities should not be allowed for cost recovery. (SACE BR 23) Since FPL's position addressing the amounts in this factual issue are based on the same activities for which FPL has requested cost recovery, a limited exploration of these activities is appropriate in this issue. Staff notes the review of these activities for reasonableness is addressed in other issues.

# FPL's 2013 TP Project Activities and Costs

FPL witness Scroggs provided, among other things, summary descriptions of the 2013 TP Project activities and estimated costs. (TR 581-586, 592-598; EXHs 8, 9) FPL witness Scroggs stated:

In 2013 and 2014 FPL will continue its progress on the project by concluding the state Site Certification Application (SCA) process and moving to the report review stage in the Nuclear Regulatory Commission's (NRC) combined License Application (COLA) process. Expenses requested are related to obtaining the licenses and permits. Estimates covering planning and design studies needed to support the project schedule have been identified, but are not requested for recovery.

# (TR 561)

Staff notes that a more detailed discussion of FPL's 2013 actual and estimated TP Project activities and costs can be found in Issue 9.

#### FPL's 2014 TP Project Activities and Costs

Witness Scroggs provided descriptions of FPL's projected 2014 TP Project activities and costs as primarily focused on completing the NRC and U.S. Corps of Engineers wetland review processes. (TR 581-582, 592-598) FPL's projected 2014 costs totaled \$17,136,102, on a system basis. (EXH 9) The 2014 projected activities and costs are licensing (\$13,410,866), permitting (\$663,796), and engineering and design (\$3,061,439). FPL projected zero costs during 2014 for activities related to long-lead procurement, power block engineering and procurement, and transmission engineering. (TR 592-598; EXH 9) FPL witness Powers supported FPL's estimated and projected 2013 and 2014 TP Project costs and provided calculations of the jurisdictional amounts by major cost categories. (EXH 8; EXH 48) Staff notes that a more detailed discussion of FPL's projected 2014 TP Project activities and costs can be found in Issue 10.

As noted above, absent SACE's arguments in other issues, no other party took exception to FPL's position on the factual amounts identified, or that the activities producing these amounts were not related to obtaining a COL from the NRC or certification.

Concerning SACE's contention that FPL is or will be engaging in preconstruction activities that are not related to pursuit of a COL in 2013 and 2014, SACE cross-examined FPL's witness Scroggs on various aspects of the TP Project, including work unrelated to pursuance of a combined operating license and FPL's forging reservation agreements which appear on the project Revision 6 schedule. While answering SACE's questions, witness Scroggs indicated that "decisions on whether to undertake those activities per the current project schedule will be made once a new COLA review schedule is published and a full project schedule review can be conducted." (TR 585)

In response to staff's discovery concerning this issue, FPL clarified certain information found within the TP Project Revision 6 schedule. In this response, FPL stated that prior to mobilization and initiation of actual site preparation construction activity for necessary roads and bridges, there were planning steps to develop the scope of work, bidding, and subsequent evaluations and awards. (EXH 73) FPL elected to "defer the initiation of these activities as they are pre-construction activities that are not required to obtain the licenses and permits for construction and operation" and no cost recovery for those activities was being sought at this time. (EXH 73)

Based on staff's review of the record, staff believes the 2013 and 2014 estimation of jurisdictional project costs presented by FPL, reflect only those activities associated with obtaining a COL from the NRC or certification.

#### **CONCLUSION**

Staff recommends that the Commission find FPL's Turkey Point 6 & 7 jurisdictional project costs (related to obtaining a COL from the NRC or certification) are \$33,838,181 for 2013 and \$24,151,118 for 2014.

**Issue** 7: Should the Commission find that, for the year 2012, FPL's project management, contracting, accounting and cost oversight controls were reasonable and prudent for the Turkey Point Units 6 & 7 project? If not, what action, if any, should the Commission take?

**<u>Recommendation</u>**: Staff recommends the Commission find that for the year 2012, FPL's project management, contracting, accounting and cost oversight controls were reasonable and prudent for the Turkey Point Units 6 & 7 project. (Breman)

# **Position of the Parties**

**FPL**: Yes. FPL relies on its comprehensive corporate and overlapping business unit controls. These comprehensive and overlapping controls include FPL's Accounting Policies and Procedures; financial systems and related controls; FPL's annual budgeting and planning process and reporting and monitoring of costs incurred; and Business Unit specific controls and processes. The project internal controls are comprised of various financial systems, department procedures, work/desktop instructions and best practices, providing governance and oversight of project cost and schedule processes. The project management, cost estimation, and risk management attributes of FPL are highly developed, well documented, and adhered to by the project teams. FPL's management decisions with respect to the Turkey Point 6 & 7 project are the product of properly qualified, well-informed FPL management following appropriate procedures and internal controls.

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: No position.

**SACE**: No position.

**<u>FRF</u>**: No position.

**<u>Staff Analysis</u>**: No party opposed FPL's position that during 2012 it reasonably and prudently managed its TP Project. No party filed post-hearing briefs addressing this issue.

#### **ANALYSIS**

As discussed below and in Issue 8, FPL's 2012 activities consisted of licensing and permitting activities. FPL witness Scroggs provided a general description of FPL's project management structure, staffing approach, and elements of FPL's project management process such as periodic internal reports, risk management flow of information, and expenditure authorizations. (TR 539-550)

FPL witness Reed, with Concentric Energy Advisors, Inc., presented an independent review of FPL's 2012 internal project controls, processes and procedures and opined that FPL appropriately and prudently managed the TP Project. (TR 287, 288-303, 326-348, 348) FPL retained witness Diaz with ND2 Group, a consulting firm, to review the reasonableness of FPL's continued pursuit of a COL for the TP Project and the prudence of FPL's actions related to a May 4, 2012 NRC letter suspending a portion of the COL review and requiring FPL to take

certain actions. (TR 267-270) He believed the NRC's focus on the matters in the May letter was to be expected after the Fukushima events and that FPL worked diligently to provide the additional requested information and to perform the required quality reviews. (TR 269-270) Witness Diaz opined that FPL's decisions and management approaches to continued pursuit of a COL were prudent. (TR 270)

Audit staff witnesses Fisher and Rich also independently reviewed FPL's 2012 project management controls. (TR 952-955; EXH 68) The review included, among other things, a summary depiction of historical, current, and future relevant key issues, such as cost estimates, permitting, long lead time forging, the NRC's halted review of parts of the COLA, and the status of FPL's plans for a construction contract. (EXH 68) The review also discussed FPL's actions associated with the NRC's May 2012 letter. (EXH 68, p. 11) Discovery addressing various aspects of this matter were also included in Exhibit 72. Audit staff's review did not present any findings of imprudence. Audit staff concluded that FPL employed internal controls, risk evaluation, management oversight, and regular reporting requirements that adequately address project schedule, budget, costs, vendor performance, and risks. (EXH 68, p. 5)

FPL's TP Project accounting and related controls were generally described by FPL witness Powers. (TR 376-382, 389-391) Witness Powers noted that the 2012 costs and controls are subject to audits. (TR 377-378) An independent audit performed by Deloitte & Touche, LLP, expressed an opinion that "FPL maintained, in all material respects, effective internal controls over financial reporting as of December 31, 2012." (EXH 71, Bates Nos. 22-23)

Commission staff accounting audit witness Piedra provided testimony and sponsored the staff's accounting audit report of FPL's 2012 costs associated with the TP Project. (TR 484-486; EXH 70) As noted in this testimony, the staff's audit activities included reconciliation and verification of 2012 costs to the general ledger and monthly accrual balances. She also verified that FPL's 2012 NCRC filings are consistent with and in compliance with Section 366.93, F.S., and Rule 25-6.0423, F.A.C. Witness Piedra did not report any findings of imprudence and did not recommend any adjustments. (TR 486)

#### Prudence Standard

Staff notes that pursuant to longstanding Commission practice, "the standard for determining prudence is consideration of what a reasonable utility manager would have done, in light of the conditions and circumstances which were known, or should been known, at the time the decision was made."<sup>22</sup>

Based on the foregoing, staff believes that FPL's 2012 TP Project management and accounting and related controls were subjected to a reasonable level of review sufficient to

<sup>&</sup>lt;sup>22</sup> Order No. PSC-07-0816-FOF-EI, issued October 10, 2007, in Docket No. 060658-EI, <u>In re: Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida</u>, Inc. to refund customers \$143 million, at 3; Order No. PSC-08-0749-FOF-EI, issued November 12, 2008, in Docket No. 080009-EI, <u>In re: Nuclear cost recovery clause</u>, at 28; Order No. PSC-09-0783-FOF-EI, issued November 19, 2009, in Docket No. 090009-EI, <u>In re: Nuclear cost recovery clause</u>, at 11, 13; Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket No. 110009-EI, <u>In re: Nuclear cost recovery clause</u>, at 26, 28, 57, 61, 91, 93; Order No. PSC-12-0650-FOF-EI, issued December 11, 2012, in Docket No. 120009-EI, <u>In re: Nuclear cost recovery clause</u>, at 23, 24, 32, 59, 60.

determine prudence. Staff believes there is no record evidence identifying any FPL 2012 TP Project management decisions or accounting as imprudent. Accordingly, staff believes no evidence of imprudent 2012 project management and related controls was demonstrated.

# **CONCLUSION**

Staff recommends the Commission find that for the year 2012, FPL's project management, contracting, accounting and cost oversight controls were reasonable and prudent for the Turkey Point Units 6 & 7 project.

**Issue 8**: What jurisdictional amounts should the Commission approve as FPL's final 2012 prudently incurred costs and final true-up amounts for the Turkey Point Units 6 & 7 project?

**Recommendation**: Staff recommends the Commission approve as prudently incurred 2012 TP Project jurisdictional costs of \$29,034,114. The recommended final 2012 true-up amount, net of prior recoveries, is an over recovery of \$5,602,800 for use in determining the total net 2014 NCRC amount in Issue 17. (Breman)

## **Position of the Parties**

**FPL**: The Commission should approve FPL's final 2012 prudently incurred Turkey Point 6 & 7 Preconstruction expenditures of \$29,034,114 (jurisdictional), and the final 2012 true-up amount of (\$5,245,763). The Commission should also approve Turkey Point 6 & 7 Preconstruction carrying charges of \$2,739,962, Site Selection carrying charges of \$180,883, and the final 2012 carrying charge true-up amount of (\$357,038). FPL's 2012 expenditures were supported by comprehensive procedures, processes and controls that help ensure those expenditures were prudent and are properly recoverable for customers. The net 2012 true up amount of (\$5,602,800) should be included in FPL's 2014 NCR amount, subject to the stipulation on Issue 1.

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: No position.

<u>SACE</u>: None. FPL failed to demonstrate the requisite intent to build in Docket 120009-EI, and thus was not realistically engaged in the "siting, design, licensing, and construction" of TP 6 & 7, nor did it complete and properly analyze a realistic feasibility analysis, and thus is not eligible for recovery of 2012 costs related to TP 6 & 7.

# **<u>FRF</u>**: No position.

**<u>Staff Analysis</u>**: This issue addresses the prudence of FPL's 2012 TP Project costs and the final 2012 true-up amount FPL will either refund or collect during 2014.

# **PARTIES' ARGUMENTS**

#### FPL

FPL argued that in 2012, it continued to focus on obtaining the necessary licenses, authorizations, and approvals needed for the TP Project. (FPL BR 17) FPL further argued that its costs were incurred due to licensing and permitting activities. (FPL BR 17) FPL asserted its project management decisions and costs were subjected to robust internal controls and found adequate by Commission audit staff and witness Reed. (FPL BR 17)

In Issue 4, FPL contended that SACE advocated FPL was required to demonstrate intent to construct the TP Project by committing substantial sums of money prematurely. (FPL BR 12-13) FPL also contended that SACE's arguments regarding FPL's 2013 analysis of the feasibility of completing the TP Project did not impact the prudence or recoverability of its 2012 costs.

(FPL BR 17-18) Accordingly, FPL asserted that its position on this issue should be approved. (FPL BR 18)

#### SACE

SACE's brief on this issue referred to the arguments it made in Issues 4 and 5 in asserting that FPL's costs were not prudently or reasonably incurred. (SACE BR 22, 25)

## **ANALYSIS**

The only party opposing FPL's position on this issue was SACE. SACE cross-examined FPL's witnesses Scroggs and Sims, but did not offer any witness testimony. (TR 602-633; 756-804) Staff notes that SACE did not challenge the prudence of FPL's 2012 project activities, oversight, management and controls in Issue 7. (SACE BR 22)

#### FPL's 2012 TP Project Activities and Costs

In describing FPL's 2012 activities, witness Scroggs identified various efforts associated with securing an NRC license and other permits for the TP Project. (TR 532-539) In summary, these include filings with the NRC's Atomic Safety and Licensing Board, responding to NRC's requests for additional information, updates to its COL application, and various ongoing State site certification reviews and reporting for both transmission and the power plant site. Witness Scroggs also discussed FPL's efforts to maintain its forging reservation agreement with Westinghouse Electric Company regarding long-lead-time equipment. The forging reservation agreement did not result in any 2012 costs. (TR 538, 629-630, 641)

FPL's year-ending 2012 costs incurred for these activities were \$5,341,794 less than its May 2012 estimate of \$34,907,425. (TR 554) FPL spent \$5,236,064 less in licensing costs primarily because of the extended site certification application schedule. (TR 556; EXH 2, p. 19) Project permitting costs were \$459,633 lower, also because of the protracted SCA schedule. (TR 556; EXH 2, p. 19) Engineering and design costs were \$353,903 higher than planned due in part to exploratory well activities. (TR 557; EXH 2, p. 19) Witness Scroggs also provided summary data on executed contracts that exceed \$250,000. (EXH 2, pp. 20-28) In Exhibit 7 he provided a summary listing of FPL's 2012 activities and associated costs.

None of the parties identified any specific activity or cost as imprudently incurred or a result of an imprudent action. As discussed in Issue 7, audit staff witnesses Rich and Fisher reported no findings of imprudence based on their audit of FPL's management oversight and controls. (EXH 68)

#### FPL's 2012 TP Project Final True-up Amount

FPL provided a series of schedules in Exhibit 2 detailing its 2012 project costs that included a calculation of its requested 2012 recovery amount. In Exhibit 2, FPL witnesses Powers and Scroggs indicated that the 2012 costs incurred for the TP Project include jurisdictional expenditures of \$29,034,114. (TR 370) Staff notes that Exhibit 2 also includes the calculations of the final 2012 carrying costs on these expenditures totaling \$2,920,845. FPL's

witnesses requested the Commission review and approve its 2012 amounts as prudent and recoverable. (TR 365-366, 523, 558)

Witness Powers explained that the actual 2012 project jurisdictional costs were compared to the prior estimate of 2012 jurisdictional costs to determine the final net over recovery true-up amount for 2012 of \$5,602,800. (TR 370; EXH 44, 48) Her summary schedule comparing FPL's actual 2012 jurisdictional costs to prior recoveries of estimated 2012 costs was identified as Exhibit 44. The requested 2012 final net true-up amount includes: over-estimated capital costs of \$5,245,763 and over-estimated carrying costs of \$357,038. (TR 368-371; EXH 44, 48) FPL requested that these amounts be used in determining the 2014 total NCRC recovery amount. (TR 370; EXH 48) As discussed in Issue 7, audit staff witness Piedra audited FPL's accounting and related controls. (TR 484-486; EXH 70) Audit staff witness Piedra reported no findings. (TR 486)

#### Prudence Standard

As noted in Issue 7, the standard for determining prudence is consideration of what a reasonable utility manager would have done, in light of the conditions and circumstances which were known, or should have been known, at the time the decision was made. Staff notes that beyond the SACE arguments discussed in Issue 4, no other concerns were identified regarding the reasonableness or prudence of FPL's 2012 incurred costs that would support any adjustment to FPL's requested amounts for the 2012 period.

Regarding SACE's argument concerning the adequacy of FPL's 2013 analysis of the feasibility of completing the TP Project (Issue 5), staff notes that no record evidence suggested FPL's 2013 analysis existed at any time during 2012. Consequently, the 2013 analysis could not have been reasonably available or known to FPL's managers during 2012 when decisions were made. Thus, staff does not rely on SACE's arguments in Issue 5 to assess the prudence or imprudence of FPL's 2012 incurred costs.

Consistent with staff's recommendations in Issues 4, 5, and 7, staff's verification of FPL's calculations and true-up amount, and a preponderance of the evidence in the record, staff believes FPL has demonstrated the prudence of its requested 2012 incurred costs and final true-up amount for the TP Project.

#### **CONCLUSION**

Staff recommends the Commission approve as prudently incurred 2012 TP Project jurisdictional costs of \$29,034,114. The recommended final 2011 true-up amount, net of prior recoveries, is an over recovery of \$5,602,800 for use in determining the total net 2014 NCRC amount in Issue 17.

**Issue 9**: What jurisdictional amounts should the Commission approve as reasonably estimated 2013 costs and estimated true-up amounts for FPL's Turkey Point Units 6 & 7 project?

**Recommendation**: Staff recommends that the Commission approve as reasonably estimated 2013 TP Project jurisdictional costs of \$28,748,963. The recommended estimated 2013 true-up amount is an over recovery of \$1,155,974 for purposes of determining the total net 2014 NCRC amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the estimated 2013 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17. (Breman)

## **Position of the Parties**

**FPL**: The Commission should approve as reasonable FPL's 2013 actual/estimated Preconstruction expenditures of \$28,748,963 (jurisdictional), and the 2013 estimated true-up amount of \$62,726. The Commission should also approve FPL's 2013 actual/estimated Preconstruction carrying charges of \$4,908,335 and Site Selection carrying charges of \$180,883, as well as the 2013 carrying charge estimated true-up amount of (\$1,218,700). FPL's 2013 actual/estimated expenditures are supported by comprehensive procedures, processes and controls which help ensure that these costs are reasonable and are properly recoverable pursuant to the NCRC statute and rule. The net 2013 true up amount of (\$1,155,974) should be included in FPL's 2014 NCR amount, subject to the stipulation on Issue 1.

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

<u>SACE</u>: None. FPL did not complete and properly analyze a realistic feasibility analysis. Additionally, its activities since January of 2012 fail to demonstrate the requisite intent to build TP 6 & 7. As such, FPL is not realistically engaged in the "siting, design, licensing, and construction" of TP 6 & 7 and thus is not eligible for recovery of costs related to TP 6 & 7.

<u>FRF</u>: No position.

**Staff Analysis**: This issue addresses FPL's request concerning the reasonableness of its 2013 TP Project estimated costs and its estimated true-up amount for 2013. Post-hearing briefs by FPL and SACE provided argument on this issue.

# PARTIES' ARGUMENTS

<u>FPL</u>

FPL argued that in 2013, it "continued to focus on obtaining the necessary licenses, authorizations, and approvals needed for Turkey Point 6 & 7." (FPL BR 19) FPL further argued that:

FPL's stepwise approach continues to provide FPL's customers with the best opportunity to make steady progress on the project but avoid making premature commitments to engineering and costs for materials. Tr. 562 (Scroggs). FPL's 2013 actual/estimated cost reflect this balanced approach. Further, as discussed above in Issue 4, the Turkey Point 6 & 7 project activities qualify for cost recovery. Finally, as discussed above in Issue 5, the project remains feasible and solidly cost-effective for customers.

### (FPL BR 19)

FPL also noted that its recovery amount is subject to its stipulation on Issue 1, which addressed a July 1, 2013 change in the applicable AFUDC rate for purposes of calculating carrying costs. (FPL BR 19)

#### SACE

SACE's brief on this issue referred to the arguments it made in Issues 4 and 5 in asserting that FPL's costs were not prudently or reasonably incurred. (SACE BR 22, 25) SACE also asserted that FPL was pursuing work that is not related to securing a COL from the NRC without first petitioning the Commission for approval of such activities. (SACE BR 22-23) SACE therefore argued the Commission cannot approve cost recovery amounts for FPL that are comprised of work that is not related to pursuing a COL from the NRC. (SACE BR 23) Finally, in its brief, SACE requested that, "in order to protect the financial interests of FPL's customers," the Commission should enter a finding that FPL's actual 2013 costs were not prudently incurred and the 2013 estimated costs were not reasonable. (SACE BR 25)

#### ANALYSIS

The only party opposing FPL's position on this issue was SACE, but SACE did not offer any evidence regarding FPL's 2013 TP Project costs. Pursuant to the Commission-approved stipulation, FPL and SACE filed post-hearing briefs. (TR 262; EXH 112; Attachment A) SACE cross-examined FPL's witness Scroggs on various aspects of the TP Project, including work unrelated to pursuance of a combined operating license and FPL's forging reservation agreements. (TR 602-633) In its brief, SACE contended that FPL was pursuing work that was not related to securing a combined operating license without first petitioning for Commission approval to engage in such activities. (SACE BR 22-23) SACE argued that FPL's pursuit of activities that are not related to pursuance of a COL is in violation of Section 366.93(3)(b), and (c), F.S., and therefore costs for those activities should not be allowed for cost recovery. (SACE BR 23)

However, in response to discovery, FPL clarified that prior to mobilization and initiation of actual site preparation construction activity for necessary roads and bridges, there were planning steps to develop the scope of work, bidding, and subsequent evaluations and awards. (EXH 73, Bates No. 59) FPL elected to defer the initiation of these activities because the activities were not required to obtain the licenses and permits for construction, and no cost recovery was sought. (EXH 73) A listing of the licenses, permits and authorizations were

provided in Exhibits 3 and 71. A summary timeline of the TP Project activities was provided in Exhibit 68.

#### FPL's 2013 TP Project Activities and Costs

FPL witness Scroggs provided summary descriptions of the 2013 TP Project activities, estimated costs, variances from prior projections of 2013 costs, and summary data on executed contracts in excess of \$250,000. (TR 581-586, 592-598; EXH 8, 9) In support of FPL's request, FPL witness Scroggs stated:

In 2013 and 2014 FPL will continue its progress on the project by concluding the state Site Certification Application (SCA) process and moving to the report review stage in the Nuclear Regulatory Commission's (NRC) combined License Application (COLA) process. Expenses requested are related to obtaining the licenses and permits. Estimates covering planning and design studies needed to support the project schedule have been identified, but are not requested for recovery.

#### (TR 561)

Witness Scroggs testified that FPL expected to resolve outstanding NRC data requests, receive a revised COLA review schedule, and proceed to the public comment phases on the draft NRC Safety Evaluation Report and Environmental Impact Statement by the end of 2013. (TR 579) Concerning the Florida SCA process, FPL anticipated a hearing and decision late in 2013, assuming current schedules remain in place. (TR 579, 584)

FPL's estimate of year-ending 2013 incurred costs was \$29,277,715, on a system basis. (EXH 8, 9) The 2013 cost estimate included amounts for licensing of \$25,526,715, permitting costs of \$1,030,565, and costs for engineering and design of \$2,720,435. (TR 593) The estimated 2013 costs for the categories of long lead procurement advance payments, power block engineering and procurement, and transmission activities were zero. (TR 593; EXH 8, 9)

The estimated 2013 system costs were \$66,329 greater than FPL's May 2012 projection of 2013 costs. (EXH 8, p. 27) Licensing costs decreased by \$1,216,915, permitting costs decreased by \$200,941, and engineering and design costs increased by \$1,484,185. (EXH 8, p. 27) The decrease in licensing costs, relative to FPL's 2012 projections, was based on a reduction to the contingency for licensing to offset expected increases in costs for engineering and design. (TR 595; EXH 8, p. 27) The decrease in permitting costs was attributed to an expected reduction in labor expenses and a reduction in contingency for permitting activities. (TR 595-596; EXH 8, p. 27) FPL witness Scroggs attributed the increased engineering and design costs to the underground injection control well system activities and increased costs to participate in the AP1000 Owners Group. (TR 572, 596; EXH 8, p. 27)

As previously noted, absent SACE's arguments in prior issues, no evidence was presented that identified unreasonable activities or unreasonable estimates of costs for FPL's 2013 TP Project activities.

#### FPL's 2013 TP Project Estimated True-up Amount

FPL witnesses Powers and Scroggs co-sponsored Exhibit 8 which includes a series of schedules supporting FPL's estimated 2013 jurisdictional amount of \$28,748,963. (TR 399-400, 406-407) In Exhibit 8, filed May 1, 2013, FPL witnesses Powers and Scroggs indicated that the estimated 2013 carrying costs totaled \$5,089,218 (\$180,833 - \$1,653,100 + \$6,561,435 = \$5,089,218). (EXH 8 pp. 5, 21, 24)

Subsequent to FPL's filings, Chapter 2013-184, Laws of Florida, effective July 1, 2013, changed the applicable AFUDC rate to the rate currently approved for all other construction projects. Consequently, FPL's NCRC filings did not reflect any changes in the applicable AFUDC rate that is used to determine FPL's recoverable 2013 carrying cost amount and FPL's estimated 2013 true-up amount. Nevertheless, parties stipulated to a July 1, 2013 implementation of the change in the applicable AFUDC rate. (EXH 112; FPL BR 18) The Commission approved the stipulation. (TR 262) Pursuant to FPL's response to discovery, the change in the applicable AFUDC rate would reduce FPL's estimated 2013 carrying costs associated with both the TP Project and the EPU Project by \$598,316. (EXH 75, Bates No. 127) FPL's response to the discovery did not provide the carrying cost adjustments by project. Consequently, staff addresses the effect of a change in the applicable AFUDC rate as an adjustment to FPL's total 2014 NCRC amount in Issue 17.

Except for the above change in calculating FPL's 2013 carrying costs, FPL witness Powers provided support for the jurisdictional 2013 TP Project costs and methods used to determine the requested estimated true-up recovery amount. (TR 397-403, 406-407, 415-418; EXH 8, pp. 5, 19; EXH 48) Witness Powers explained that the estimated 2013 jurisdictional project costs were compared to the prior projection of 2013 jurisdictional costs to determine the estimated over recovery true-up amount of \$1,155,974. (TR 406-408; EXH 8; EXH 48) The requested 2013 true-up amount includes an under recovery of pre-construction costs of \$62,726 and an over recovery of carrying charges of \$1,218,700. (TR 406; EXH 48) These 2013 estimated true-up amounts were included in FPL's total net NCRC request which is addressed in Issue 17. (TR 397-408; EXH 48)

Consistent with staff's recommendations in prior issues, staff's verification of FPL's calculations and estimated true-up amounts, and a preponderance of the evidence in the record, staff believes FPL has demonstrated the reasonableness of its requested estimate of 2013 incurred costs and true-up amounts for the TP Project.

#### **CONCLUSION**

Staff recommends that the Commission approve as reasonably estimated 2013 TP Project jurisdictional costs of \$28,748,963. The recommended estimated 2013 true-up amount is an over recovery of \$1,155,974 for purposes of determining the total net 2014 NCRC amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the estimated 2013 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17.

**Issue 10**: What jurisdictional amounts should the Commission approve as reasonably projected 2014 costs for FPL's Turkey Point Units 6 & 7 project?

**Recommendation**: Staff recommends that the Commission approve as reasonably projected 2014 TP Project jurisdictional costs of \$16,826,626. The recommended projected 2014 amount, including carrying costs, is \$24,151,118 for purposes of determining the total net 2014 NCRC amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the projected 2014 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17. (Breman)

#### **Position of the Parties**

**FPL**: The Commission should approve as reasonable FPL's 2014 projected Preconstruction expenditures of \$16,826,626 (jurisdictional). The Commission should also approve as reasonable FPL's 2014 projected Preconstruction carrying charges of \$7,143,609 and Site Selection carrying charges of \$180,883. FPL's 2014 projected expenditures are supported by comprehensive procedures, processes and controls which help ensure that these costs are reasonable and are properly recoverable pursuant to the NCRC statute and rule. The net amount of \$24,151,118 should be included in FPL's 2014 NCR amount, subject to the stipulation on Issue 1.

**<u>OPC</u>**: No position.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

<u>SACE</u>: None. FPL did not complete and properly analyze a realistic feasibility analysis. Additionally, its activities since January of 2012 fail to demonstrate the requisite intent to build TP 6 & 7. As such, FPL is not realistically engaged in the "siting, design, licensing, and construction" of TP 6 & 7, and thus the Commission should find projected costs in 2014 as not reasonable.

**<u>FRF</u>**: No position.

<u>Staff Analysis</u>: This issue addresses FPL's request concerning the reasonableness of its projected 2014 TP Project costs and recovery amount. Post-hearing briefs by FPL and SACE provided argument on this issue. However, no new matters applicable to FPL's estimated 2014 activities and costs were disputed that are not addressed in prior issues.

# PARTIES' ARGUMENTS

FPL

FPL argued that in 2014, it "expects to incur costs to support the licensing and permit application reviews that are underway." (FPL BR 20) FPL further argued that it developed its projection of 2014 costs in accordance with its budget and accounting guidelines and policies.

(FPL BR 20) FPL opined that the project remained feasible and solidly cost-effective for customers and that its activities qualify for cost recovery. (FPL BR 20) FPL noted that its recovery amount is subject to its stipulation on Issue 1 which addresses a July 1, 2013 change in the applicable AFUDC rate for purposes of calculating carrying costs. (FPL BR 20)

## <u>SACE</u>

SACE's brief on this issue referred to the arguments it made in Issues 4 and 5 in asserting that FPL's costs were not prudently or reasonably incurred. (SACE BR 22, 25)

#### ANALYSIS

As discussed in Issue 9, SACE argued in its brief that FPL was pursuing work that was not related to securing a COL and that the Commission could not approve FPL's amounts related to such work. (SACE BR 22-23) However, as addressed in Issue 9, FPL has not initiated such activities nor requested recovery of costs stemming from those activities planned in 2014. (EXH 73)

#### FPL's 2014 TP Project Activities and Costs

FPL witness Scroggs described FPL's 2014 TP Project activities and costs as primarily focused on completing the SCA, the COLA and U.S. Corps of Engineers wetland review processes. (TR 580-582, 592-598) FPL's projected 2014 costs totaled \$17,136,102 on a system basis. (EXH 9) The 2014 projected activities and costs were licensing (\$13,410,866), permitting (\$663,796), and engineering and design (\$3,061,439). FPL projected zero costs during 2014 for activities related to long-lead procurement, power block engineering and procurement, and transmission engineering. (TR 592-598; EXH 9)

#### FPL's 2014 TP Project Recovery Amount

FPL witnesses Powers and Scroggs co-sponsored Exhibit 8, which includes a series of schedules detailing FPL's projections of its 2014 jurisdictional costs and calculation of its requested 2014 recovery of \$16,826,626 in pre-construction costs. (TR 399-400, 406-407; EXH 8, p. 42) In Exhibit 8, FPL witnesses Powers and Scroggs also indicated that the estimated 2014 carrying costs totaled \$7,324,442 (\$180,833 - \$355,439 + \$7,499,048 = \$7,324,442). (EXH 8, pp. 10, 42, 45)

As discussed in Issue 9, subsequent to FPL's filings, Chapter 2013-184, Laws of Florida, effective July 1, 2013, changed the applicable AFUDC rate to be the same as the currently approved AFUDC rate used for all other construction projects. Consequently, FPL's NCRC filings did not reflect any changes in the applicable AFUDC rate that is used to determine FPL's projected 2014 carrying cost amount. Nevertheless, parties stipulated to a July 1, 2013 implementation of the change in the applicable AFUDC rate. (EXH 112; FPL BR 20) The Commission approved the stipulation. (TR 262) Pursuant to FPL's response to discovery, the change in the applicable AFUDC rate will reduce FPL's projected 2014 carrying costs associated with both the TP Project and the EPU Project by \$1,025,133. (EXH 75, Bates No. 127) FPL's response to the discovery did not provide the carrying cost adjustments by project by year.

Consequently, staff addresses the effect of a change in the applicable AFUDC rate as an adjustment to FPL's total 2014 NCRC amount in Issue 17.

Except for the above change in calculating FPL's NCRC 2014 carrying costs, FPL witness Powers provided additional support for the jurisdictional 2014 TP Project costs and methods used to determine the requested recovery amount. (TR 397-405, 407-408, 415-418; EXH 8) In Exhibit 48, witness Powers presented a summary of the 2014 TP Project jurisdictional pre-construction costs and carrying costs that were calculated in various schedules that comprise Exhibit 8.

FPL's requested NCRC amount for 2014 project costs is \$24,151,118. (TR 408; EXH 48) This amount includes the following items that have been previously discussed in this issue: preconstruction costs in the amount of \$16,826,626, associated carrying costs of \$7,143,609, and \$180,833 in carrying costs stemming from tax effects on the regulatory treatment of site selection costs. (TR 408; EXH 8; EXH 48) These 2014 projected amounts were included in FPL's net total NCRC request which is addressed in Issue 17. (TR 397-408; EXH 48)

Consistent with staff's recommendations in prior issues, staff's verification of FPL's calculations, and a preponderance of the evidence in the record, staff believes FPL has demonstrated the reasonableness of its requested projection of 2014 costs and recovery amounts for the TP Project.

#### **CONCLUSION**

Staff recommends that the Commission approve as reasonably projected 2014 TP Project jurisdictional costs of \$16,826,626. The recommended projected 2014 amount, including carrying costs, is \$24,151,118 for purposes of determining the total net 2014 NCRC amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the projected 2014 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17.

# FPL - EPU Project Issues

**Issue 13**: Should the Commission find that, for the year 2012, FPL's project management, contracting, accounting and cost oversight controls were reasonable and prudent for FPL's Extended Power Uprate project? If not, what action, if any, should the Commission take?

**<u>Recommendation</u>**: Staff recommends the Commission find FPL's 2012 EPU Project management, contracting, accounting and cost oversight controls reasonable and prudent. (Breman)

## **Position of the Parties**

**FPL**: Yes. FPL's 2012 EPU project management decisions are the product of properly qualified, well-informed FPL management following appropriate procedures and internal controls. Both Concentric and Commission Staff reviewed FPL's project controls and determined they were appropriate. OPC's proposed disallowance is unrelated to the prudence of FPL's project management in 2012. Instead, OPC attempts to use breakeven costs developed for a completely different project to draw a conclusion about the cost-effectiveness of the Turkey Point portion of the EPU project. OPC's approach ignores prior Commission orders finding that the EPU project cannot be split into two projects, relies entirely on hindsight, is contrary to the NCR law, and contrary to prior Commission decisions to reject similar disallowance mechanisms.

**<u>OPC</u>**: No. FPL management's imprudent, ongoing failure to mitigate extreme uncertainty through a commensurate provision for contingency produced exorbitant costs at Turkey Point. That uprate is \$338 million more expensive than the maximum capital costs that the economics (including fuel savings) of FPL's new nuclear unit could justify, and it will operate less than half as long.

FPL's rationale for a consolidated view of a single, "integrated" EPU project *disintegrates* before skyrocketing costs at Turkey Point that demonstrate vast differences from the St. Lucie EPU. This decision point presents the Commission with its last, most compelling opportunity to shield customers from these staggering overruns. It should disallow \$200,000,000 of the \$975,000,000 that FPL spent on Turkey Point in 2012 alone.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

# **<u>SACE</u>**: Agree with OPC.

**FRF**: The Florida Retail Federation agrees with the Citizens that FPL imprudently failed to consider and mitigate extreme uncertainty in its Turkey Point uprate project, resulting in the costs of that project being both dramatically over budget and significantly non-cost-effective for FPL and its customers. Accordingly, the Commission should disallow at least \$200 of the \$975 million that FPL spent of the Turkey Point uprate project in 2012 alone.

<u>Staff Analysis</u>: This issue addresses FPL's 2012 project management, contracting, accounting, and oversight controls for the EPU Project. As a preliminary matter, the Commission approved a

stipulation between the parties (Attachment A) that resolved all matters to be addressed under this issue except for OPC witness Jacobs' recommendation for a \$200 million disallowance. (TR 262) Staff notes that FIPUG and SACE supported OPC's position and arguments but provided no argument in their respective briefs. (FIPUG BR 1; SACE BR 24)

#### PARTIES ARGUMENTS

#### <u>FPL</u>

FPL argued in its brief that its 2012 EPU Project management decisions were prudent as shown by extensive record evidence. (FPL BR 5, 21, 25) FPL further argued that no intervenor identified any specific project costs that resulted from any allegedly imprudent 2012 management decision.<sup>23</sup> (FPL BR 6, 25)

In its brief, FPL claimed that it diligently managed its vendors to ensure the costs expended were reasonable and appropriate. (FPL BR 22) Examples included requirements for vendors to provide detailed schedules and detailed metrics for productivity, daily focus meetings during outages, daily work plans, and any impacts to schedule and cost. (FPL BR 22-23; TR 919-920, 923) FPL asserted it had leveraged vendors' performance to negotiate price reductions and concessions that ultimately resulted in a \$77 million reduction to its 2012 EPU Project costs. (FPL BR 23; TR 860-861, 891)

#### OPC

OPC argued in its brief that the point of completion was the necessary and appropriate time to consider whether the investment at each site would provide economic benefits to customers. (OPC BR 3) OPC opined that the breakeven analysis that FPL applied to its TP Project quantified the maximum amount that FPL can spend on capital costs for a new nuclear unit at the Turkey Point site and remain competitive with a gas-fired alternative. (OPC BR 6) OPC witness Jacobs expressed a view that the cost of uprate capacity should fall below the same maximum breakeven point to be cost-effective. (OPC BR 6, 7) Based on a comparison of site-specific construction costs to FPL's breakeven range for the TP Project of \$4,217 to \$6,640 per kW, OPC regarded the St. Lucie uprate cost of \$3,800 per kW as economic while the Turkey Point uprate cost of \$8,100 per kW was uneconomic. (OPC BR 6-7)

OPC argued that the costs of the Turkey Point uprate were the result of ongoing imprudence by FPL's failure to balance the extreme uncertainty associated with the Turkey Point uprate with an inadequate provision for contingency in the planning and implementation of its project over time, including 2012. (OPC BR 7-8) OPC further asserted that FPL witness Jones acknowledged FPL's practice continued throughout the project, including during 2012, and the Commission should take measures to prevent FPL from passing on the costs of that imprudence to its customers. (OPC BR 9) OPC urged the Commission to disallow, as imprudently incurred, \$200 million of the 2012 Turkey Point uprate costs. (OPC BR 9)

<sup>&</sup>lt;sup>23</sup> FPL's brief footnoted its opinion that OPC witness Jacobs' hindsight attacks on the 2008 need determination and on project management in years prior to 2012 were outside the scope of this proceeding and failed to meet the standard set by law to support a disallowance. (FPL BR 7)

# <u>FRF</u>

FRF, in its support of OPC's position, argued that the costs of both the St. Lucie and Turkey Point uprate projects had increased over the original projections. However, the St. Lucie uprate costs were low enough to render that project economic. FPL had not adequately considering contingencies, and if it had, it could have avoided the consequences of overspending on the Turkey Point uprate project. FRF, in its brief, asserted that perhaps FPL should have been more careful and avoided the observed cost overruns. (FRF BR 1-3) FRF opined that the proposed disallowance would at least partially protect customers from FPL's failure to control costs and make appropriate decisions. (FRF BR 4)

# ANALYSIS

Staff's analysis of this issue provides: (1) a summary of FPL's 2012 EPU Project management activities; (2) a review of FPL's 2012 EPU Project management and controls; (3) a review of OPC witness Jacobs' recommended \$200 million disallowance; (4) application of the prudence standard; and (5) a conclusion that staff believes FPL was prudent based on record evidence.

# Summary of FPL's 2012 EPU Project Management Activities

FPL witness Jones, FPL's Vice President of Nuclear Power Uprates, asserted FPL successfully managed its most intensive year of the EPU Project. (TR 837-841) A summary of the activities by generating unit included:

- St. Lucie Unit 1: Implementation and completion of major modifications during its EPU outage and a 6-day License Amendment Request outage that completed the uprate;
- St. Lucie Unit 2: Implementation and completion of major modifications during its EPU outage that completed the uprate;
- Turkey Point Unit 3: Implementation and completion of major modifications during its EPU outage that completed the uprate; and
- Turkey Point Unit 4: Initiation and implementation of major modifications during its EPU outage, which was scheduled to be complete in early 2013.

# (TR 840-841)

FPL witness Jones opined that this work required substantial iterative engineering design and construction planning, continuous forward-looking management, adjustments to outage dates and durations, revisions to implementation plans, and intensive contract oversight and management. (TR 841, 847-862) Modifications at St. Lucie Unit 1 and Turkey Point Unit 3 were highly complex and had not been performed before, which required more people and time for the modification engineering, work packages, and implementation work efforts. (TR 841, 849-850) In Exhibits 15 and 16, witness Jones provided photographs and illustrations of the component replacements and modifications. (TR 843) FPL completed approximately 220 plant design modification packages, approximately 10,600 work packages, which included over 58,000 individually planned, scheduled and monitored activities. (TR 846, 850) Witness Jones provided a summary listing of 176 activities with associated contracts and scoping documents supporting the need for each of the activities. (EXH 20) Staff notes that no party asserted imprudence regarding any of the 72 activities listed for the St. Lucie site or any of the 104 activities at the Turkey Point site.

Witness Jones asserted that all the work scheduled to occur in 2012 was performed and cost approximately \$1.4 billion. (TR 841) Witness Jones also provided a summary of the 2012 cost variances in Exhibit 19. (TR 851) He reported that the major cost driver was the human effort required to perform the complex activities. (EXH 19, p. 1) Another contributing factor was discovery during implementation that added engineering design, scheduling, and planning elements to the activities. (EXH 19, pp. 5, 8, 14-17) Staff notes that no party asserted imprudence concerning FPL's actions addressing the cost variance drivers that witness Jones discussed in Exhibit 19. Instead, OPC and FRF argued that the costs of the Turkey Point uprate were the result of FPL's failure to balance the extreme uncertainty associated with the Turkey Point uprate with an adequate provision for contingency in the planning and implementation of its project over time, including 2012. (OPC BR 7-8; FRF BR 1)

#### Review of FPL's 2012 EPU Project Management Procedures and Related Controls

OPC witness Jacobs, while generally questioning FPL's practice concerning a contingency allowance, did not present a review of FPL's 2012 EPU Project oversight efforts. FPL witness Reed, with Concentric Energy Advisors, Inc., presented an independent review of, and opinion on FPL's 2012 internal project controls, processes, and procedures. (TR 287-288, 290) Based on his review, he concluded that FPL appropriately and prudently managed the EPU Project. (TR 290, 304-328) Witness Reed asserted that FPL negotiated concessions from Bechtel in 2012 that included elimination of incentive fees, reductions in hourly rates, and reductions in daily living allowance rates.<sup>24</sup> (TR 310) He also noted that FPL updated its cost estimate range for direct EPU Project costs of \$2.32 billion to \$2.48 billion, to a new range of \$2.96 billion to \$3.15 billion. (TR 308) However, he did not believe the increased cost forecast resulted from imprudent project management.

As I have stated previously, it is not uncommon for a mega project of this size to require regular updates to its cost forecast, especially given the fact that the EPU Project is currently in the Implementation Phase in which significant new items of scope (referred to as "discovery scope") are revealed. The reason for that is, often, the full scope of a work package cannot be known until the modifications to the facility have begun.

### (TR 309)

FPL witness Ferrer, with Burns and Roe Enterprises, Inc., presented an independent review of the 2012 execution of FPL's EPU Project to assess whether FPL was reasonable and

<sup>&</sup>lt;sup>24</sup> Bechtel is FPL's EPU Project engineering, procurement and construction (EPC) contractor. (TR 310; EXH 68, p. 31)

prudent in its implementation efforts. (TR 274-285) He reported that planned EPU work was completed on or close to schedule, and power output increases exceeded engineering estimates. He concluded that FPL's management exhibited reasonable and prudent EPU Project oversight. (TR 275)

Commission audit staff witnesses Fisher and Rich reviewed FPL's 2012 project management controls. (TR 952-955, 957-966; EXH 68, pp. 5-8, 23-34) The primary objective of the audit was to document key project events and contract activities to assist with the evaluation of FPL's filings. (EXH 68) The internal controls examined annually are related to the following areas of project activity: planning, management and organization, cost and schedule controls, contractor selection and management, auditing, and quality assurance. (EXH 68) The review included a summary of historical, current, and future relevant key issues, such as cost estimates, NRC license review status, outages, work stoppages, audits and investigations, contract oversight and warranty claims. (EXH 68, pp. 23-34) Audit staff's review discussed FPL's oversight of Bechtel and other major vendors but made no specific finding of imprudence. (EXH 68, pp. 31, 34) Witnesses Fisher and Rich believed that FPL had in place, and employed, an adequate system of project controls, risk evaluation, and management oversight. (EXH 68, p. 8)

FPL's EPU Project accounting and related controls were generally described by FPL witness Powers. (TR 376-379, 382-391) Witness Powers noted that the 2012 costs and controls were independently audited. (TR 377-378) As noted in Issue 7, Deloitte & Touche, LLP, expressed an opinion that FPL maintained, in all material respects, effective internal controls. (EXH 71, Bates Nos. 22-23)

Commission staff accounting audit witness Maitre provided testimony and sponsored the staff's accounting audit report of FPL's EPU Project. (TR 479-483; EXH 69) Witness Maitre's audit activities included reconciliation and verification of 2012 costs to the general ledger and monthly accrual balances. Additionally, she verified that, absent two finding, FPL's March 2013 filings for the 2012 period were consistent with and in compliance with Section 366.93, F.S., and Rule 25-6.0423, F.A.C. (TR 482-483; EXH 69) The first finding was that FPL had applied an incorrect jurisdictional factor for certain assets at the St. Lucie site resulting in understated jurisdictional expenses. (TR 482) The other finding disclosed that a downward adjustment to operations and maintenance (O&M) expense was required because witness Maitre identified expenses that should not have been classified as NCRC recoverable. (TR 482-483) FPL witness Powers filed an errata on July 3, 2013, that reflected corrections in agreement with these audit findings. (TR 361-362; EXH 44)

# OPC Witness Jacobs' Recommended \$200 Million Disallowance

As addressed more fully below, in presenting his support for a \$200 million disallowance, witness Jacobs presented arguments addressing a 2012 increase in actual EPU Project costs compared to forecasted costs, and the use of a breakeven analysis for rate setting purposes.

#### Annual Increase in Project Costs

Witness Jacobs explained that the actual expenditures for calendar year 2012 exceeded FPL's April 2012 estimate of \$688 million by \$287 million. (TR 471) He asserted FPL had been imprudent for failing to either accomplish advanced engineering at the outset of these projects or to incorporate a contingency that is commensurate with the risk involved in the EPU Project. (TR 470) He speculated that if the Commission had known this information one year ago, it may have decided the issue of disallowance that OPC raised at that time differently. (TR 471) However, staff notes OPC witness Jacobs' testimony was otherwise silent regarding why FPL's actual 2012 cost were greater than its 2012 estimates.

FPL witness Jones argued that "it is wrong for witness Jacobs to assert that knowledge of higher Turkey Point costs in 2012 would have somehow supported a different Commission conclusion on this point." (TR 930) Witness Jones went on to say that "FPL recognizes, with the benefit of hindsight, that it underestimated its 2012 EPU costs, including those it estimated for Turkey Point." (TR 934) However, witness Jones opined that OPC witness Jacobs had not identified a single imprudent management action or decision that caused the project costs to increase. (TR 927) FPL rebuttal witnesses Reed and Deason similarly asserted that OPC witness Jacobs' recommendation was not linked to any imprudent FPL decision or action during 2012. (TR 351; 432-433)

Staff notes that no party disputed that FPL's actual 2012 costs were higher than any of FPL's prior estimates. A history of FPL's annual estimates was presented. (EXH 68, p. 6) As noted above, FPL admitted to underestimating its 2012 costs. However, staff notes that no evidence was presented that during 2012 FPL had both knowledge and opportunity to reduce EPU Project costs by any amount through use of a larger contingency in its 2012 EPU Project estimates. FPL witness Jones asserted increasing its estimates could have decreased FPL's ability to control project costs. (TR 932) However, his testimony did not offer any further discussion or explanation regarding his assertion that increasing estimates could decrease FPL's ability to control project costs. Staff notes that witnesses Reed, Fisher, and Rich reported that FPL did achieve cost and price concessions from its contractors. (TR 310; EXH 68)

Staff is not persuaded that the variance between FPL's estimated and actual 2012 EPU Project costs is evidence of imprudent actions by FPL management. Additionally, while witness Jacobs asserted FPL failed to either accomplish advanced engineering at the outset of the EPU Project or to incorporate a contingency commensurate with the risk involved; there was no supporting evidence that FPL's 2012 costs would have been less than what FPL reported. Consequently, staff believes no imprudently incurred costs were identified.

#### Use of a Breakeven Analysis

Witness Jacobs' recommended disallowance was based on his belief that an alternative method was needed to measure the impact of the economics of the Turkey Point uprate against the benefit of near-final cost information to reveal "the extent to which the cost - particularly 2012 costs - reached unreasonable levels." (TR 471-472) Witness Jacobs compared the Turkey Point site specific uprate construction costs to FPL's breakeven range for the TP Project. (OPC BR 6-7; 466-467) According to witness Jacobs, the TP Project breakeven ranged from \$4,217 to

\$6,640 per kW, while the Turkey Point uprate cost was \$8,100 per kW. (OPC BR 6-7; TR 466-467) Based on this analysis, OPC witness Jacobs concluded that the Turkey Point uprate activities were uneconomic. (TR 466-467) He stated he had not engaged in hindsight analysis because he had presented testimony in prior years that, on a stand-alone basis, the Turkey Point uprate activities were uneconomic. (TR 472) Staff notes that witness Jacobs' testimony did not explain precisely how he arrived at the \$200 million disallowance amount, other than noting it was less than his calculated breakeven amount. (TR 472, 475) Staff notes that the \$200 million disallowance is also less than his calculation of the \$287 million variance between FPL's forecasted and actual 2012 costs that he associated with the Turkey Point uprate activities. (TR 471)

FPL rebuttal witness Jones commented that for "three years now, OPC has attempted to examine the Turkey Point portion of the EPU project in isolation." (TR 928) He also commented that witness Jacobs' arguments stemmed from his repeated attempt to split the EPU Project into two pieces. (TR 927-931) FPL rebuttal witnesses Reed, Deason, and Sim provided similar testimony. (TR 351, 421, 434-438, 440-443; 694)

Staff observes that witness Jacobs' premise for a stand-alone analysis was to assess the level of unreasonable costs using near-final cost information. (TR 471-472) Staff believes the analysis, by using final project cost information, relies on hindsight and does not distinguish between prudent and imprudent utility management actions in calculation of a dollar amount. Use of hindsight and an inability to distinguish between prudent and imprudent actions were the basis of the Commission's rejection of witness Jacobs' recommendations in a prior NCRC case.<sup>25</sup> However, witness Jacobs, in relying on his testimony in prior NCRC cases, offered no additional support, explanation or analysis, other than identification of FPL's 2012 actual costs compared to FPL's 2012 estimate. (TR 462, 472) Consequently, staff believes OPC witness Jacobs' premise was offered without addressing prior Commission concerns regarding the application of hindsight analysis and an inability to distinguish between prudent and imprudent actions.

Based on the forgoing, staff believes witness Jacobs' recommendation should not be adopted because there is no support regarding how, if at all, his use of a breakeven analysis does not apply hindsight analysis and distinguishes between prudent and imprudent utility management actions.

#### Application of the Prudence Standard

As discussed in Issues 7 and 8, the standard for determining prudence is consideration of what a reasonable utility manager would have done, in light of the conditions and circumstances which were known, or should been known, at the time the decision was made. As discussed above, witness Jacobs opined that FPL knew, or should have known, that activities at the Turkey Point site were uncertain and thus FPL should have increased the contingency included in its non-binding cost estimates to complete the EPU Project. (TR 469-470)

<sup>&</sup>lt;sup>25</sup> See Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket No. 110009-EI, <u>In re: Nuclear cost</u> recovery clause, at 52-53, 55.

FPL witness Reed did not associate imprudence with the level of FPL's contingency. (TR 309) As noted above, FPL admitted to underestimating its 2012 costs. In their respective briefs, OPC and FRF asserted this failure by FPL was also a failure to control costs. (OPC BR 7; FRF BR 1, 4) However, staff notes that no evidence was presented by any witness that in 2012 FPL had both knowledge and opportunity to reduce EPU Project costs by at least \$200 million compared to its actual costs through use of a larger contingency. The multiple reviews of FPL's 2012 EPU Project oversight efforts, however, reported that FPL achieved cost and price concessions from its contractors. (TR 310; EXH 68)

Based on the foregoing, staff believes that FPL's 2012 EPU Project management, accounting and related controls were subjected to a reasonable level of review sufficient to determine prudence. Staff believes there is no record evidence identifying any of FPL's 2012 EPU Project management or accounting decisions and actions as imprudent.

However, should the Commission approve OPC witness Jacobs' recommended \$200 million disallowance, then FPL's 2012 jurisdictional expenditures of \$1,369,209,305, identified in Issue 14, should be reduced to \$1,172,944,105 (\$1,369,209,305 – (\$200,000,000 x 0.981326) weighted jurisdictional factor = \$1,172,944,105). Staff notes that there would be additional implementation details, such as various reductions to the estimated 2013 base rates revenue requirements for a smaller net investment balance and reductions in the calculated carrying costs. OPC witness Jacobs' testimony did not address any of these implementation consequences. Staff believes that if the Commission determines a \$200 million disallowance should be made then FPL should be required to reflect any resulting changes to the otherwise recoverable amounts for 2013 and 2014 as part of the normal true-up process.

#### **CONCLUSION**

Staff recommends the Commission find FPL's 2012 Uprate project management, contracting, accounting, and cost oversight controls reasonable and prudent.

**Issue 14**: What jurisdictional amounts should the Commission approve as FPL's final 2012 prudently incurred costs and final true-up amounts for the Extended Power Uprate project?

**Recommendation**: Staff recommends that the Commission approve as prudently incurred 2012 EPU Project jurisdictional expenditures of \$1,369,209,305; O&M costs, including interest, of \$7,198,815; and carrying costs of \$110,615,132. The recommended final 2012 true-up amount is an under recovery of \$3,876,726 for purposes of determining the total net 2014 NCRC amount in Issue 17. (Breman)

## **Position of the Parties**

**FPL**: The Commission should approve as prudent FPL's final 2012 EPU expenditures of \$1,369,209,305 (jurisdictional, net of participants). The Commission should also approve as prudent FPL's final 2012 EPU O&M costs, including interest, of \$7,198,815 (jurisdictional, net of participants); carrying charges of \$110,615,132; the final true-up of O&M costs including interest of (\$7,347,934); and final true-up of carrying charges of \$5,705,405. In addition, the Commission should approve as prudent FPL's final 2012 EPU base rate revenue requirements, including carrying charges, of \$84,594,473; and the final true-up of revenue requirements, including carrying charges, of \$5,519,255.

FPL's 2012 EPU expenditures are supported by comprehensive procedures, processes and controls that help ensure those expenditures were the result of prudent decision making. The net 2012 true up amount of \$3,876,726 should be approved and included in FPL's 2014 NCRC recovery amount.

<u>OPC</u>: See OPC's position on Issue 13. The jurisdictional amount should be adjusted to account for OPC's recommended \$200 million reduction.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

SACE: Stipulated.

**<u>FRF</u>**: Agree with OPC.

**Staff Analysis**: This issue addresses the prudence of FPL's 2012 EPU Project costs and the final 2012 true-up amount FPL will either refund or collect during 2014. As a preliminary matter, the Commission approved a stipulation between the parties (Attachment A) that resolved all matters to be addressed under this issue, including FPL's recovery amounts, except for any adjustments stemming from the resolution of Issue 13. (TR 262)

# ANALYSIS

Consistent with staff's recommendation in Issue 13, addressing FPL's overall EPU project management and oversight, there are no adjustments to the stipulated amounts. Thus, the final 2012 true-up amount, net of prior recoveries, is an under recovery of \$3,876,726 for use in

determining the total net 2014 Nuclear Cost Recovery Clause amount (\$5,705,405 - \$7,347,934 + \$5,519,255 = \$3,876,726). (EXH 48)

Should the Commission agree with OPC witness Jacobs' recommended \$200 million disallowance in Issue 13, then the Commission should approve in the resolution of this issue an adjusted prudently-incurred 2012 EPU Project jurisdictional expenditure of \$1,172,944,105. All other details regarding the implementation of the disallowance should be addressed in the normal NCRC true-up process. Staff believes reliance on the true-up process is reasonable because there is no record support addressing how the disallowance would be implemented.

#### CONCLUSION

Staff recommends that the Commission approve as prudently incurred 2012 Extended Power Uprate Project jurisdictional expenditures of \$1,369,209,305; O&M costs, including interest, of \$7,198,815; and carrying costs of \$110,615,132. The recommended final 2012 trueup amount is an under recovery of \$3,876,726 for purposes of determining the total net 2014 NCRC amount in Issue 17.

**Issue 15**: What jurisdictional amounts should the Commission approve as reasonably estimated 2013 costs and estimated true-up amounts for FPL's Extended Power Uprate project?

**Recommendation**: Staff recommends that the Commission approve as reasonable estimated 2013 EPU Project jurisdictional expenditures of \$226,636,946; O&M costs, including interest, of \$9,611,895; and carrying costs of \$20,346,709. The recommended estimated 2013 true-up amount is an under recovery of \$22,292,480 for purposes of determining the total net 2014 Nuclear Cost Recovery amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the estimated 2013 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17. (Breman)

## **Position of the Parties**

**FPL**: The Commission should approve as reasonable FPL's 2013 actual/estimated EPU expenditures of \$226,636,946 (jurisdictional, net of participants). The Commission should also approve as reasonable FPL's 2013 actual/estimated EPU O&M costs, including interest, of \$9,611,895 (jurisdictional, net of participants); carrying charges of \$20,346,709; the 2013 estimated true-up of O&M costs including interest of \$4,534,025; and the true up of carrying charges of \$4,912,831. In addition, the Commission should approve as reasonable FPL's 2013 actual/estimated EPU base rate revenue requirements including carrying charges; Incremental 2012 EPU plant placed into service base rate revenue requirements including carrying charges; and carrying charges on the Actual/Estimated Net Book Value of Retirements, Removal, and Salvage of \$77,583,826; and the 2013 estimated true-up of these items of \$12,845,624.

FPL's 2013 actual/estimated EPU costs are supported by comprehensive procedures, processes and controls which help ensure that these costs are reasonable. The net 2013 true up amount of \$22,292,480 should be included in setting FPL's 2014 NCR amount.

<u>OPC</u>: See OPC's position on Issue 13. The jurisdictional amount should be adjusted to account for OPC's recommended \$200 million reduction.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

SACE: Stipulated.

**<u>FRF</u>**: Agree with OPC.

<u>Staff Analysis</u>: This issue addresses the reasonableness of FPL's estimated 2013 EPU Project costs and the estimated 2013 true-up amount FPL will either refund or collect during 2014. As a preliminary matter, the Commission approved a stipulation between the parties (Attachment A) that resolved all matters to be addressed under this issue except for any adjustments stemming from the resolution of Issue 13 and a July 1, 2013 change in the AFUDC rate used to calculate NCRC carrying costs. (TR 262)

#### ANALYSIS

Consistent with staff's recommendations in Issues 13 and 14, there are no adjustments to the stipulated amounts in this issue. As discussed in Issues 9 and 10, the Commission approved the FPL Stipulation that implemented a change in the applicable AFUDC rate, effective July 1, 2013. (TR 262; EXH 112) Pursuant to FPL's response to discovery, the change in the applicable AFUDC rate will reduce FPL's projected 2013 carrying costs associated with both the TP Project and the EPU Project by \$598,316. (EXH 75, Bates No. 127) FPL's response to the discovery did not break out the carrying cost adjustments by project. Consequently, staff addresses the effect of a change in the applicable AFUDC rate as an adjustment to FPL's total 2014 Nuclear Cost Recovery amount in Issue 17. Thus, the estimated 2013 true-up amount, net of prior recoveries and before recognition of the change in AFUDC rates, is an under recovery of \$22,292,480 for purposes of determining the total net 2014 Nuclear Cost Recovery amount in Issue 17 (\$4,534,025 + \$4,912,831 + \$12,845,624 = \$22,292,480).

Should the Commission agree with OPC witness Jacobs' recommended \$200 million disallowance in Issue 13, then implementation of that disallowance for the 2013 period would be addressed in the normal NCRC true-up process. Staff believes reliance on the true-up process is reasonable because there was no record support that detailed how the disallowance would be implemented.

#### **CONCLUSION**

Staff recommends that the Commission approve as reasonable estimated 2013 EPU Project jurisdictional expenditures of \$226,636,946; O&M costs, including interest, of \$9,611,895; and carrying costs of \$20,346,709. The recommended estimated 2013 true-up amount is an under recovery of \$22,292,480 for purposes of determining the total net 2014 Nuclear Cost Recovery amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the estimated 2013 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17.

**Issue 16**: What jurisdictional amounts should the Commission approve as reasonably projected 2014 costs for FPL's Extended Power Uprate project?

**Recommendation**: Staff recommends that the Commission approve as reasonable projected 2014 EPU Project jurisdictional expenditures of \$0; O&M costs, including interest, of \$-1,055; and carrying costs of \$1,524,201. The recommended projected 2014 recovery amount is \$1,523,146 for purposes of determining the total net 2014 Nuclear Cost Recovery amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the projected 2014 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17. (Breman)

#### **Position of the Parties**

**FPL**: FPL is projecting no 2014 EPU project costs; however, there will be carrying charges on the under or over recovery of 2013 costs. The Commission should approve as reasonable FPL's 2014 projected EPU carrying charges of \$1,523,146 and include this amount in setting FPL's 2014 NCR amount.

**OPC**: See OPC's position on Issue 13.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

SACE: Stipulated.

**<u>FRF</u>**: Agree with OPC.

<u>Staff Analysis</u>: This issue addresses the reasonableness of FPL's projected 2014 EPU Project costs and the amount FPL will either recover or collect during 2014. As a preliminary matter, the Commission approved a stipulation between the parties (Attachment A) that resolved all matters to be addressed under this issue except for any adjustments stemming from the resolution of Issue 13 and a July 1, 2013 change in the AFUDC rate used to calculate NCRC carrying costs. (TR 262)

# ANALYSIS

Consistent with staff's recommendations in Issues 13 through 15, there are no adjustments to the stipulated amounts in this issue. However, should the Commission agree with OPC witness Jacobs' recommendation in Issue 13, then staff believes FPL should be required to reflect any resulting changes to the otherwise recoverable amounts for the 2014 period as part of its normal true-up process.

As discussed in Issues 9, 10, and 15, the Commission approved the FPL Stipulation that implemented a change in the applicable AFUDC rate. (TR 262; EXH 112) Pursuant to FPL's response to discovery, the change in the applicable AFUDC rate will reduce FPL's projected 2014 carrying costs associated with both the TP Project and the EPU Project by \$1,025,133.

(EXH 75) FPL's response to the discovery did not break out the carrying cost adjustments by project. Consequently, staff addresses the effect of a change in the applicable AFUDC rate as an adjustment to FPL's total 2014 Nuclear Cost Recovery Clause amount in Issue 17.

Consistent with staff's recommendation in Issue 13, addressing FPL's overall EPU project management and oversight, there are no adjustments to the stipulated amounts. Thus, the projected 2014 recovery amount before recognition of the change in AFUDC rates, is \$1,523,146 for purposes of determining the total net 2014 Nuclear Cost Recovery amount in Issue 17 (\$1,524,201 - \$1,055 = \$1,523,146). (EXH 48)

#### **CONCLUSION**

Staff recommends that the Commission approve as reasonable projected 2014 EPU Project jurisdictional expenditures of \$0; O&M costs, including interest, of \$-1,055; and carrying costs of \$1,524,201. The recommended projected 2014 recovery amount is \$1,523,146 for purposes of determining the total net 2014 Nuclear Cost Recovery amount in Issue 17.

Pursuant to the FPL Stipulation, approved by the Commission at hearing, the projected 2014 carrying costs should be reduced to reflect a July 1, 2013 change in the applicable AFUDC rate. Staff presents this adjustment in Issue 17.

# FPL - Fallout Issue

**Issue 17**: What is the total jurisdictional amount to be included in establishing FPL's 2014 Capacity Cost Recovery Clause factor?

**<u>Recommendation</u>**: Staff recommends the Commission approve a total jurisdictional amount of \$43,461,246 as the 2014 Nuclear Cost Recovery Clause amount. This amount should be used in establishing FPL's 2014 Capacity Cost Recovery Clause factor. (Breman)

## **Position of the Parties**

**FPL**: The total jurisdictional amount of \$45,084,695 should be included in establishing FPL's 2014 Capacity Cost Recovery Clause factor. This amount consists of costs associated with the Turkey Point 6 & 7 project and the EPU project as provided for in Section 366.93 and Rule 25-6.0423, Fla. Admin. Code.

<u>OPC</u>: See OPC's position on Issue 11. The jurisdictional amount should be adjusted to account for OPC's recommended \$200 million reduction.

**<u>FIPUG</u>**: FIPUG adopts the arguments and positions set forth in the post hearing brief filed by the Office of Public Counsel.

**<u>SACE</u>**: This is a fallout amount from the substantive issues.

**<u>FRF</u>**: Agree with OPC.

**Staff Analysis:** This issue addresses the amount the Commission should establish as FPL's 2014 NCRC amount to be collected through the 2014 Capacity Cost Recovery Clause factor. No new arguments or concerns are addressed in this issue. The total jurisdictional amount is the sum of recovery amounts decided in Issues 8, 9, 10, 13, 14, 15, and 16. As discussed in prior issues, and consistent with the FPL Stipulation, the implementation of a July 1, 2013 change in the applicable AFUDC rate is shown below.

# **ANALYSIS**

This is a fall-out issue. For purposes of completeness, the effects of each of the parties' positions and staff's recommendations in Issues 8, 9, 10, 14, 15, and 16 are shown below. The table below does not show any adjustments stemming from implementation of OPC witness Jacobs' recommended \$200 million disallowance because, as explained in Issue 13, his testimony did not provide any details addressing implementation. Staff believes that if the Commission approves witness Jacobs' recommendation in Issue 13 then FPL should be required to address the implementation of that disallowance as a true-up matter in the 2014 NCRC.

	FPL	OPC, FIPUG, FRF	SACE	Staff
FPL's TP Project				
Issue 8 - 2012 Final True-up	\$ -5,602,800	\$ -5,602,800	\$ 0	\$ -5,602,800
Issue 9 - 2013 Est. True-up	-1,155,974	-1,155,974	0	-1,155,974
Issue 10 - 2014 Projections	24,151,118	24,151,118	0	24,151,118
*TP Project Subtotal	\$ 17,392,343	\$ 17,392,343	\$ 0	\$ 17,392,343
-			•	·
FPL's EPU Project				
Issue 14 - 2012 Final True-up	\$ 3,876,726	\$ 3,876,726	\$ 3,876,726	\$ 3,876,726
Issue 15 - 2013 Est. True-up	22,292,480	22,292,480	22,292,480	22,292,480
Issue 16 - 2014 Projections	1,523,146	1,523,146	1,523,146	1,523,146
FPL's EPU Project Subtotal	\$ 27,692,352	\$ 27,692,352	\$ 27,692,352	\$ 27,692,352
				•
*Subtotals	\$ 45,084,695	\$ 45,084,695	\$ 27,692,352	\$ 45,084,695
			•	·
Carrying Cost Adjustments due	to a change in the	applicable AFUI	DC rate. (EXH 75	; EXH 112)
Issues 9 and 15 – 2013	\$ -598,316	\$ -598,316	\$ -598,316	\$ -598,316
Issues 10 and 16 – 2014	-1,025,133	-1,025,133	-1,025,133	-1,025,133
Carrying Cost Adjustment	\$ -1,623,449	\$ -1,623,449	\$ -1,623,449	\$ -1,623,449
· · · ·	•	•	•	•
Net NCRC Total 2014 Amount	\$ 43,461,246	\$ 43,461,246	\$ 26,068,903	\$ 43,461,246
*Subtotals do not add due to r	ounding.	•		

Table 17-1: Summary of FPL's Net 2014 Nuclear Cost Recovery Clause Amount
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# **CONCLUSION**

Staff recommends the Commission approve a total jurisdictional amount of \$43,461,246 as the 2014 Nuclear Cost Recovery Clause amount. This amount should be used in establishing FPL's 2014 Capacity Cost Recovery Clause factor.

## Attachment A (FPL Stipulation – Exhibit 12)

## Florida Public Service Commission Docket No. 130009-EI

## FPL Case Issue Positions/Stipulations and Procedural Agreements

## Legal Issues

# **<u>ISSUE 1</u>**: Does recently enacted Senate Bill 1472, effective July 1, 2013, change the AFUDC rate that should be used for nuclear cost recovery clause computations in this year's pending case?

- **FPL:** Without waiving their legal positions concerning this issue, the parties stipulate and agree to FPL reducing its 2014 nuclear cost recovery amount by \$1,623,449, which reflects application of its AFUDC rate in effect as of July 1, 2013. As a result, the parties agree that Issue 1 is moot and need not be decided by the Commission.
- **OPC:** See stipulation, above.
- **FRF:** See stipulation, above.
- **FIPUG:** See stipulation, above.
- SACE: See position stated in Order No. PSC-13-0333-PHO-EI.
- **<u>ISSUE 2</u>**: Does recently enacted Senate Bill 1472, effective July 1, 2013, preclude a utility from continuing preconstruction work not related to obtaining a combined operating license from the Nuclear Regulatory Commission or certification, that was under contract or commenced prior to July 1, 2013?
- **FPL:** The parties agree that this legal issue is moot as to FPL and need not be decided by the Commission.
- **OPC:** See stipulation, above.
- **FRF:** See stipulation, above.
- **FIPUG:** See stipulation, above.
- **SACE:** See stipulation, above.

- **<u>ISSUE 3</u>**: Does recently enacted Senate Bill 1472, effective July 1, 2013, preclude a utility from recovering costs associated with preconstruction work not related to obtaining a combined operating license from the Nuclear Regulatory Commission or certification, that was under contract or commenced prior to July 1, 2013?
- **FPL:** The parties agree that this legal issue is moot as to FPL and need not be decided by the Commission.
- **OPC:** See stipulation, above.
- **FRF:** See stipulation, above.
- **FIPUG:** See stipulation, above.
- **SACE:** See stipulation, above.

## **TP67 Project Issues**

- **<u>ISSUE 4</u>**: Do FPL's activities since January 2012 related to the proposed Turkey Point Units 6 & 7 qualify as "siting, design, licensing and construction" of a nuclear power plant as contemplated by Section 366.93, F.S.?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: See position stated in Order No. PSC-13-0333-PHO-EI.
- **<u>ISSUE 5</u>**: Should the Commission approve what FPL has submitted as its 2013 annual detailed analysis of the long-term feasibility of completing the Turkey Point Units 6 & 7 project, as provided for in Rule 25-6.0423, F.A.C.? If not, what action, if any, should the Commission take?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.

**FRF:** No position.

- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: See position stated in Order No. PSC-13-0333-PHO-EI.
- **<u>ISSUE 5A</u>**: What is the current total estimated all-inclusive cost (including AFUDC and sunk costs) of the proposed Turkey Point Units 6 & 7 nuclear project?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: Agree with FIPUG, as stated in Order No. PSC-13-0333-PHO-EI.
- ISSUE 5B: What is the current estimated planned commercial operation date of the planned Turkey Point Units 6 & 7 nuclear facility?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: Agree with FIPUG, as stated in Order No. PSC-13-0333-PHO-EI.
- **<u>ISSUE 6:</u>** What are the jurisdictional amounts for Turkey Point 6 & 7 project activities that are related to obtaining a combined license from the Nuclear Regulatory Commission or certification during 2013 and 2014?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.

- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: See position stated in Order No. PSC-13-0333-PHO-EI.
- **<u>ISSUE 7:</u>** Should the Commission find that, for the year 2012, FPL's project management, contracting, accounting and cost oversight controls were reasonable and prudent for the Turkey Point Units 6 & 7 project? If not, what action, if any, should the Commission take?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: No position, as stated in Order No. PSC-13-0333-PHO-EI.
- **<u>ISSUE 8</u>**: What jurisdictional amounts should the Commission approve as FPL's final 2012 prudently incurred costs and final true-up amounts for the Turkey Point Units 6 & 7 project?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: See position stated in Order No. PSC-13-0333-PHO-EI.

- **ISSUE 9:** What jurisdictional amounts should the Commission approve as reasonably estimated 2013 costs and estimated true-up amounts for FPL's Turkey Point Units 6 & 7 project?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: See position stated in Order No. PSC-13-0333-PHO-EI.
- **<u>ISSUE 10:</u>** What jurisdictional amounts should the Commission approve as reasonably projected 2014 costs for FPL's Turkey Point Units 6 & 7 project?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** No position.
- **FRF:** No position.
- **FIPUG:** FIPUG does not waive and preserves its positions in the prehearing order but does not object to a global stipulation to be approved by the Commission by the other parties as set forth in FPL's proposal.
- SACE: See position stated in Order No. PSC-13-0333-PHO-EI.

#### **EPU Project Issues**

[ISSUES 11, 11A, 11B, 11C, and 12 were withdrawn.]

- **ISSUE 13:** Should the Commission find that, for the year 2012, FPL's project management, contracting, accounting and cost oversight controls were reasonable and prudent for FPL's Extended Power Uprate project? If not, what action, if any, should the Commission take?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **OPC:** See position stated in Order No. PSC-13-0333-PHO-EI.
- **FRF:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.

- **FIPUG:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- SACE: Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.

**<u>ISSUE 14:</u>** What jurisdictional amounts should the Commission approve as FPL's final 2012 prudently incurred costs and final true-up amounts for the Extended Power Uprate project?

- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI, subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **OPC:** OPC stipulates to FPL's position, subject to the Commission's determination on Issue 13 and subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **FRF:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- **FIPUG:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- SACE: Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.

**<u>ISSUE 15:</u>** What jurisdictional amounts should the Commission approve as reasonably estimated 2013 costs and estimated true-up amounts for FPL's Extended Power Uprate project?

- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI, subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **OPC:** OPC stipulates to FPL's position, subject to the Commission's determination on Issue 13 and subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **FRF:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- **FIPUG:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- SACE: Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.

**<u>ISSUE 16:</u>** What jurisdictional amounts should the Commission approve as reasonably projected 2014 costs for FPL's Extended Power Uprate project?

- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI, subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **OPC:** OPC stipulates to FPL's position, subject to the Commission's determination on Issue 13 and subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **FRF:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- FIPUG: Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- SACE: Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.

#### FPL Fallout Issue

- **<u>ISSUE 17</u>**: What is the total jurisdictional amount to be included in establishing FPL's 2014 Capacity Cost Recovery Clause factor?
- **FPL:** See position stated in Order No. PSC-13-0333-PHO-EI, subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **OPC:** OPC stipulates to FPL's position, subject to the Commission's determination on Issue 13 and subject to the \$1,623,449 AFUDC rate reduction stipulation contained in Issue 1.
- **FRF:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- **FIPUG:** Agree with OPC, as stated in Order No. PSC-13-0333-PHO-EI.
- SACE: This is a fallout amount, as stated in Order No. PSC-13-0333-PHO-EI.

# **Procedural Agreements**

All parties except for SACE agree that Legal Issue 1 is moot and need not be argued or decided because of FPL's agreement to reduce its 2014 recovery amount by \$1,623,449. The Commission should determine whether Issue 1 is moot and whether oral argument is needed.

Parties will make opening statements as provided for in Order No. PSC-13-0333-PHO-EI.

All parties waive cross examination and stipulate to the entry of prefiled testimony (or amended testimony, if applicable) and exhibits (except Exhibit TOJ-27) into the record, except for Messrs. Scroggs's and Sim's direct testimony and exhibits.

FPL witnesses Steven Scroggs and Steven Sim will present their direct testimony and appear for cross examination by SACE.

The parties may file post-hearing briefs on contested EPU Issue 13, where the parties would argue OPC's disallowance recommendations based on the stipulated testimony and exhibits. SACE and FPL will also brief contested Turkey Point 6 & 7 Issues 4, 5, 6, 8-10.