

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Nuclear cost recovery clause.

DOCKET NO. 120009-EI  
ORDER NO. PSC-12-0650-FOF-EI  
ISSUED: December 11, 2012

The following Commissioners participated in the disposition of this matter:

RONALD A. BRISÉ, Chairman  
LISA POLAK EDGAR  
ART GRAHAM  
EDUARDO E. BALBIS  
JULIE I. BROWN

APPEARANCES:

R. ALEXANDER GLENN and JOHN T. BURNETT, ESQUIRES, Progress Energy Florida, Inc., Post Office Box 14042, St. Petersburg, FL 33733-4042; JAMES MICHAEL WALLS, BLAISE N. GAMBA and MATTHEW R. BERNIER, ESQUIRES, Carlton Fields, P.A., Post Office Box 3239, Tampa, Florida 33601-3239  
On behalf of Progress Energy Florida, Inc. (PEF).

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On behalf of Florida Power & Light Company (FPL).

J.R. KELLY, CHARLES J. REHWINKEL, JOSEPH A. MCGLOTHLIN, and ERIK L. SAYLER, ESQUIRES, Office of Public Counsel, c/o The Florida Legislature, 111 W. Madison Street, Room 812, Tallahassee, Florida 32399-1400  
On behalf of the Citizens of the State of Florida (OPC).

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On behalf of the Southern Alliance for Clean Energy (SACE).

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On behalf of the Florida Public Service Commission (STAFF).

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Advisor to the Florida Public Service Commission.

FINAL ORDER APPROVING NUCLEAR COST RECOVERY AMOUNTS FOR PROGRESS ENERGY FLORIDA, INC. AND FLORIDA POWER & LIGHT COMPANY

BY THE COMMISSION:

**Background**

On March 1, 2012, Progress Energy Florida, Inc. (PEF) and Florida Power & Light Company (FPL) filed petitions seeking prudence review and final true-up of the 2011 costs for certain nuclear power plant projects pursuant to Rule 25-6.0423, Florida Administrative Code, and Section 366.93, Florida Statutes. PEF, on April 30, 2012, and FPL, on April 27, 2012, filed additional petitions seeking approval to recover estimated 2012 costs and projected 2013 costs. Both companies requested to recover these costs in 2013 through the Capacity Cost Recovery Clause.

Each PEF petition addressed two nuclear projects. The first PEF project is a multi-phased uprate of its existing nuclear generating plant, Crystal River Unit 3. PEF obtained an affirmative need determination for the CR3 Uprate project in 2007 by Order No. PSC-07-0119-

FOF-EI.<sup>1</sup> The second PEF project is the construction of two new nuclear generating units, Levy Units 1 and 2. PEF obtained an affirmative need determination for the Levy project in 2008 by Order No. PSC-08-0518-FOF-EI.<sup>2</sup>

Each FPL petition also addressed two nuclear projects. The first FPL project is composed of EPU activities at its four existing nuclear generating plants, Turkey Point Units 3 and 4 and St. Lucie Units 1 and 2. FPL obtained an affirmative need determination for its EPU project in 2008 by Order No. PSC-08-0021-FOF-EI.<sup>3</sup> The second FPL project is the construction of two new nuclear generating units, Turkey Point Units 6 and 7. FPL obtained an affirmative need determination for the two new nuclear generating plants in 2008 by Order No. PSC-08-0237-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 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 this 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

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<sup>1</sup> Order No. PSC-07-0119-FOF-EI, issued February 8, 2007, in Docket No. 060642-EI, In re: Petition for 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>2</sup> Order No. PSC-08-0518-FOF-EI, issued August 12, 2008, in Docket No. 080148-EI, In re: Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by Progress Energy Florida, Inc.

<sup>3</sup> Order No. PSC-08-0021-FOF-EI, issued January 7, 2008, in Docket No. 070602-EI, In re: Petition for 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, Rule 25-6.0423, F.A.C.

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

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 capacity cost recovery clause. 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.)
- Pre-construction 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, this Commission approved stipulations among the parties to Docket No. 080009-EI, establishing that site selection costs be treated in the same manner as pre-construction 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 Capacity Cost Recovery Clause. 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 Capacity Cost Recovery Clause.

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 Capacity Cost Recovery Clause pursuant to Section 366.93, F.S. This is the fifth year of the Nuclear Cost Recovery Clause (NCRC) roll-over docket.

Intervention in the 2012 Nuclear Cost Recovery Clause proceeding was granted to the following parties: OPC, SACE, FIPUG, PCS Phosphate, FEA, FRF. Testimony and associated exhibits were filed by PEF, FPL, OPC and Commission staff.

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

- A requirement that PEF'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 PEF 2013-2017 NCRC recovery, a requirement that PEF is limited in its recovery of only those costs associated with certain Levy project activities, as identified in the agreement and PEF 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 Agreement.
- During the Settlement period, PEF will not petition for in-service cost recovery related to any Uprate of CR3 prior to nine months following the commencement of commercial operation of CR3.
- The parties to the agreement concurred that for the CR3 Uprate project, PEF is allowed to recover carrying costs and other NCRC recoverable costs through the NCRC consistent with section 366.93, F. S.

On August 14, 2012, PEF filed a motion requesting that this Commission defer its review of the long-term feasibility of completing the CR3 Uprate and its determination of the reasonableness of PEF's 2012 and 2013 CR3 Uprate expenditures and associated carrying costs until the 2013 Nuclear Cost Recovery Clause proceedings. PEF provided revised testimony and positions reflecting the exclusion of any CR3 Uprate project costs that may be incurred during 2012 and 2013. PEF's motion was unopposed or supported by all other parties and approved by us as a preliminary matter on September 5, 2012.

The evidentiary hearing for the PEF portion of the 2012 Nuclear Cost Recovery Clause was held on September 10, 2012. During the hearing, PEF, OPC, SACE, FIPUG, PCS Phosphate, FEA and FRF offered stipulations that rendered moot other disputed matters associated with our review of PEF's 2012 and 2013 CR3 Uprate project in this proceeding

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

because of our approval of PEF's motion on September 5, 2012. We approved the stipulations copy of which is included as Attachment A of this order and is incorporated herein.

The FPL portion of the evidentiary hearing was held on September 5 and 11, 2012. On September 11, 2012, during the FPL portion of the hearing, Commission staff offered an unopposed partial stipulation with FPL of matters disputed in Issue 29. We approved the partial stipulation a copy of which is included as Attachment B of this order and is incorporated herein.

All parties filed post-hearing briefs on October 1, 2012, addressing the remaining unresolved issues. During the Special Agenda Session on November 26, 2011, we determined that our decisions involving Issues 13, 14 and 15, rendered Issue 3 moot.

We have 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.

List of Acronyms and Abbreviations	
AFUDC	Allowance for funds used during construction
COL	Combined operating license (NRC license to build and operate a power plant)
COLA	Combined operating license application (filing with the NRC for a license)
Commission	Florida Public Service Commission
CPVRR	Cumulative present value revenue requirements
CR3 Uprate	Extended Power Uprate of PEF's Crystal River Unit 3
CWIP	Construction work in progress
EPU	Extended power uprate requiring major plant modifications
FPL Uprate	Extended Power Uprate of FPL's St. Lucie Units 1and2 and Turkey Pt. Units 3and4
F.A.C.	Florida Administrative Code
FEA	Federal Executive Agencies
FIPUG	Florida Industrial Power Users Group
FPL	Florida Power & Light Company
FRF	Florida Retail Federation
F.S.	Florida Statutes
kW	Kilowatt (1,000 watts)
kWh	Kilowatt-hour (1,000 watt-hours)
Levy	Levy Units 1 and 2
MW	Megawatt (1,000,000 watts)
NCRC	Nuclear Cost Recovery Clause
NRC	Nuclear Regulatory Commission
O&M	Operations and maintenance
OPC	Office of Public Counsel
PEF	Progress Energy Florida, Inc.
PCS Phosphate	White Springs Agricultural Chemicals Inc. d/b/a PCS Phosphate – White Springs
SACE	Southern Alliance for Clean Energy

## Decision

### Legal

#### I. Carrying Costs Under Section 366.93(2)(b), Florida Statutes

All parties agreed that we can disallow the recovery of any costs, particularly carrying costs, which are imprudently incurred as a result of a finding of imprudence, based on a preponderance of the evidence adduced at a hearing before this Commission pursuant to Section 120.57, F.S. Both of the utilities claimed that this provision must be strictly interpreted in that this Commission can only disallow costs after a factual determination of imprudence. From their point of view, incurred carrying costs are either completely prudent or completely imprudent, and thus we cannot selectively disallow portions of any costs such as changing “carrying costs by excluding a portion of the equity component.” Both utilities acknowledge that if this Commission finds that the carrying costs are imprudently incurred, then all of those carrying costs should be disallowed. OPC argues that we have an inherent authority to disallow any costs we find unreasonable or imprudently incurred, but that we can only do so after a factual finding of imprudence at a hearing pursuant to Section 120.57, F.S. OPC maintains that if we determine that some expenditures were imprudently incurred, then we may disallow the portion of the carrying costs associated with the imprudence expenditures and allow the recovery of prudently incurred expenditures.

Turning to the text of the statute, Section 366.93(2), F.S., reads as follows:

Within 6 months after the enactment of this act, the Commission shall 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, including new, expanded, or relocated electrical transmission lines and facilities that are necessary thereto, or of an integrated gasification combined cycle power plant. Such mechanisms shall be designed to promote utility investment in nuclear or integrated gasification combined cycle power plants and allow for the recovery in rates of all prudently incurred costs and shall include, but not be limited to:

(b) Recovery through an incremental increase in the utility’s capacity cost recovery clause rates of the carrying costs on the utility’s projected construction cost balance associated with the nuclear or integrated gasification combined cycle power plant. . .

(emphasis added)

The guide for statutory construction is legislative intent, which shall be determined from the language of the statute.<sup>6</sup> Generally when a statute is clear and unambiguous, courts will not look behind the statute's plain language for legislative intent, or resort to rules of statutory construction to ascertain intent insofar as this would constitute an abrogation of legislative power.<sup>7</sup> It is also acknowledged as a general rule that beyond any discussion of legislative intent, the courts should give the statute its plain and obvious meaning.<sup>8</sup> Therefore, courts should avoid interpretations that would render part of a statute meaningless. Another basic rule of statutory construction is that a literal interpretation of the language of the statute need not be given when to do so would lead to unreasonable conclusions or defeat legislative intent.<sup>9</sup> Furthermore, Black's Law Dictionary defines the word "shall" as "has a duty to; more broadly is required to." The definition found in that dictionary also states that, "this (definition) is the mandatory sense that drafters typically intend and that the courts typically uphold."<sup>10</sup>

Based on these rules of construction we find that the Legislature's use of the word "shall" as a predicate to the phrase "allow for the recovery in rates of all prudently incurred costs and shall include . . ." indicates the Legislature created a mandatory obligation for us to allow the recovery of all prudently incurred carrying costs. The use of the word "all" suggests the Legislature intended the complete inclusion of any prudently incurred carrying costs addressed in this Order. This is bolstered by Section 403.519(4)(e), F.S., which states "costs incurred prior to commercial operation . . . shall not be subject to challenge unless and only to the extent (this) Commission finds, based on a preponderance of the evidence adduced at a hearing before (this) Commission under s. 120.57, that certain costs were imprudently incurred." If costs are only prudently or imprudently incurred, and if the legislative intent provides for the recovery of all prudently incurred costs, then the statute does not appear to provide for the partial disallowance of a portion of any prudently incurred carrying costs.

We find the legislative mandate as presented in the statute is clear and unambiguous and shall be given its plain meaning.

## II. Definition of "Certain Costs" Under 403.519(4)(e), Florida Statutes

Section 403.519(4)(e), F.S., reads:

After a petition for determination of need for a nuclear or integrated gasification combined cycle power plant has been granted, the right of a utility to recover any

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<sup>6</sup> Mayo Clinic Jacksonville v. Department of Professional Regulation, 625 So. 2d 918 (Fla 1<sup>st</sup> DCA); Fla. Dep't of Fin. Servs. v. Riscorp Ins. Co., 871 So. 2d 261 (Fla. 1<sup>st</sup> DCA); Lee County Elec. Coop. v. Jacobs, 820 So. 2d 297 (Fla. 2002); M.D v. State, 993 So. 2d 1061 (Fla. 1<sup>st</sup> DCA).

<sup>7</sup> Mayo Clinic Jacksonville v. Department of Professional Regulation, 625 So. 2d 918 (Fla 1<sup>st</sup> DCA); Dep't of Revenue v. Lockheed Martin Corp., 905 So. 2d 1017 (Fla 1<sup>st</sup> DCA), M.D v. State; 993 So. 2d 1061 (Fla. 1<sup>st</sup> DCA); Cheery v. State, 959 So. 2d 702, 713 (Fla. 2007).

<sup>8</sup> Holly v Auld, 450 So. 2d 217, 219 (Fla. 1984); A.R. Douglass, Inc. v. McRainey, 137 So. 157, 159 (Fla. 1931).

<sup>9</sup> Shell Harbor Group, Inc. v. Department of Business Regulation, 487 So. 2d 1141 (Fla. 1<sup>st</sup> DCA); Doe v. Dep't of Health, 948 So. 2d 803, (Fla. 2<sup>nd</sup> DCA); Winemiller v. Feddish, 568 So. 2d 483, 484-85 (Fla 4<sup>th</sup> DCA 1990); Holly v. Auld, 450 So. 2d 217 (Fla. 1984).

<sup>10</sup> Black's Law Dictionary 1499 (9<sup>th</sup> Ed, 2004).

costs incurred prior to commercial operation, including, but not limited to, costs associated with the siting, design, licensing, or construction of the plant and new, expanded, or relocated electrical transmission lines or facilities of any size that are necessary to serve the nuclear power plant, shall not be subject to challenge unless and only to the extent the Commission finds, based on a preponderance of the evidence adduced at a hearing before the Commission under s. 120.57, that certain costs were imprudently incurred. Proceeding with the construction of the nuclear or integrated gasification combined cycle power plant following an order by the Commission approving the need for the nuclear or integrated gasification combined cycle power plant under this act shall not constitute or be evidence of imprudence. Imprudence shall not include any cost increases due to events beyond the utility's control. Further, a utility's right to recover costs associated with a nuclear or integrated gasification combined cycle power plant may not be raised in any other forum or in the review of proceedings in such other forum. Costs incurred prior to commercial operation shall be recovered pursuant to Chapter 366.

The guide for statutory construction is legislative intent, which must be determined primarily from the language of the statute.<sup>11</sup> Generally when a statute is clear and unambiguous, courts will not look behind the statute's plain language for legislative intent, or resort to rules of statutory construction to ascertain intent insofar as this would constitute an abrogation of legislative power.<sup>12</sup> It is also acknowledged as a general rule that beyond any discussion of legislative intent the courts should give the statute its plain and obvious meaning.<sup>13</sup> Therefore, courts should avoid interpretations that would render part of a statute meaningless. Another basic rule of statutory construction is that a literal interpretation of the language of the statute need not be given when to do so would lead to unreasonable conclusions or defeat legislative intent.<sup>14</sup>

Based on the previously discussed rules of construction, the meaning of "certain costs" may be derived from a plain reading of Section 403.519(4)(e) that states "the rights of a utility to recover any costs incurred prior to commercial operation, . . . shall not be subject to challenge unless and only to the extent this Commission finds, based on a preponderance of the evidence adduced at a hearing before this Commission under s.120.57, that certain costs were imprudently incurred." (emphasis added) In short, "certain costs" under this statutory provision can include costs that were imprudently incurred.

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<sup>11</sup> Mayo Clinic Jacksonville v. Department of Professional Regulation, 625 So. 2d 918 (Fla 1<sup>st</sup> DCA); Fla. Dep't of Fin. Servs. v. Riscorp Ins. Co., 871 So. 2d 261 (Fla. 1<sup>st</sup> DCA); Lee County Elec. Coop. v. Jacobs, 820 So. 2d 297 (Fla. 2002); M.D v. State, 993 So. 2d 1061 (Fla. 1<sup>st</sup> DCA).

<sup>12</sup> Mayo Clinic Jacksonville v. Department of Professional Regulation, 625 So. 2d 918 (Fla 1<sup>st</sup> DCA); Dep't of Revenue v. Lockheed Martin Corp., 905 So. 2d 1017 (Fla. 1<sup>st</sup> DCA), M.D v. State; 993 So. 2d 1061 (Fla. 1<sup>st</sup> DCA); Cheery v. State, 959 So. 2d 702, 713 (Fla. 2007).

<sup>13</sup> Holly v Auld, 450 So. 2d 217, 219 (Fla. 1984); A.R. Douglass, Inc. v. McRaney, 137 So. 157, 159 (Fla. 1931).

<sup>14</sup> Shell Harbor Group, Inc. v. Department of Business Regulation, 487 So. 2d 1141 (Fla. 1<sup>st</sup> DCA); Doe v. Dep't of Health, 948 So. 2d 803, (Fla. 2<sup>nd</sup> DCA); Winemiller v. Feddish, 568 So. 2d 483, 484-85 (Fla 4<sup>th</sup> DCA 1990); Holly v. Auld, 450 So. 2d 217 (Fla. 1984).

Turning to the basic legal issue, Section 403.519(4)(e), F.S., indicates that “certain costs” can include costs caused by an imprudent decision or action. Once an action or decision is found imprudent, it logically follows that those costs incurred by continuing in an imprudent manner or continuing to follow an imprudent decision would also be imprudently incurred costs. Since findings of prudence are not revisited and stand in perpetuity once they are final,<sup>15</sup> there is no reason for a utility to expect it can recover costs incurred in subsequent years by continuing in an act or decision previously found to be imprudent. Therefore, we find the phrase “certain costs” shall include costs caused by an imprudent decision or action that are incurred in years subsequent to the year of the imprudent decision or action. We would note the caveat, however, that the subsequent act must be caused by or directly flow from the prior act in order to find an act or decision imprudent simply by virtue of its association with an earlier imprudent act or decision.

### **Progress Energy Florida, Inc.**

#### **III. Levy Units 1 and 2 Siting, Design Licensing and Construction Qualification**

We note that with the exception of SACE, none of the intervenors offered testimony at the hearing, or addressed the Levy project activities in their briefs, particularly with regard to whether PEF’s activities since January 2011 related to the Levy project qualify as siting, design, licensing and construction of a nuclear power plant as contemplated by Section 366.93, F.S. SACE’s discussion of the Levy project activities was directed at the question of demonstration of intent to build, and not the prudence of any actual Levy project activities.

Section 366.93, F.S., provides for cost recovery for utilities engaged in the siting, design, licensing, and construction of new nuclear power plants. In Order No. PSC-11-0095-FOF-EI, we interpret and define this statutory provision to include the building of new nuclear power plants and the modification of existing nuclear power plants.<sup>16</sup> As discussed in the Order, the main question to review was whether a utility must engage in the siting, design, licensing, and construction of nuclear power plant activities simultaneously in order to meet the statutory requirements of Section 366.93, F.S.

Under Section 366.93(1)(a), F.S., “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:

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<sup>15</sup> See Rule 25-6.0423(5)(c)3, F.A.C.

<sup>16</sup> Order No. PSC-11-0095-FOF-EI, issued February 2, 2011, in Docket No. 100009-EI, In re: Nuclear cost recovery clause.

See also Order No. PSC-08-0749-FOF-EI, issued on November 12, 2008, in Docket No. 080009-EI, In re: Nuclear Cost Recovery Clause; and Order No. PSC-09-0783-FOF-EI, issued November 19, 2009, in Docket No. 090009-EI, In re: Nuclear Cost Recovery Clause.

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 reviewing the question, we took guidance from Order No. PSC-11-0095-FOF-EI. At page 9 of this Order, we found that a utility need not engage in the siting, design, licensing, and construction activities of a nuclear power plant simultaneously in order to meet the statutory requirements under Section 366.93, F.S. As noted on page 11 of this Order, the utility, however, must demonstrate through its actions, an 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.

In support of its position, PEF witnesses Garrett and O’Cain described Levy project activities PEF engaged in during 2011. PEF witness Elnitsky described the Levy project activities PEF is currently engaged in and those that are planned for 2013.

Witness Garrett stated that in 2011, PEF was engaged in project activities concerning licensing application and support, engineering and design, power block engineering, real estate acquisition, and project management support.

Reviewing the record, we find that PEF’s actions since 2011 support the requirement of demonstrating its intent to build. We have determined that the Levy project has and continues to be approved and funded by PEF’s Senior Management Committee and Board of Directors as required by PEF’s internal policy and governing procedures. The project is active, supported by a required integrated project plan, covered by a construction contract, and currently under NRC licensing application review.

SACE argued that by entering into the Settlement Agreement (approved by Order No. PSC-12-0104-FOF-EI in Docket No. 120022-EI) PEF demonstrated that it does not have the requisite intent to build the Levy project. SACE argued that since, under the agreement, PEF would be allowed to recover the costs of canceling the project, entering into the agreement reflects PEF’s intent concerning the Levy project.

We do not agree with either the premise or the conclusion reached by SACE concerning PEF’s involvement with the settlement agreement. We note that even if PEF’s “intent” was to terminate the project, Section 366.93(6), F.S., allows for recovery of all prudent preconstruction and construction costs in the event the utility elects not to complete or is precluded from completing the construction of the nuclear power plant. Therefore, PEF did not need to enter into a settlement agreement to recover these costs. Further, SACE’s argument that one can imply intent to build from PEF’s action of entering into a settlement agreement was tested and addressed by PEF during SACE’s cross-examination of witness Elnitsky.

As to OPC, PCS Phosphate, FRF, FIPUG and FEA, we note that none of these parties took issue with or argued in their post-hearing brief that the Levy project activities for which PEF is requesting cost recovery are inconsistent with the parties' approved settlement agreement.

From our review, we find the Levy project activities since January 2011 are similar and consistent with those we have reviewed in prior proceedings and found to be appropriate for nuclear cost recovery.<sup>17</sup> We further note that PEF's 2011, 2012 and projected 2013 activities for the Levy project qualify as preconstruction activities as defined in Section 366.93(1)(f), F.S., and as interpreted by Rule 25-6.0423(2)(h), F.A.C., since PEF has not entered into the actual construction phase of the project or announced termination of the project. We find that, taken as a whole, all of the noted activities are more consistent with a demonstration of intent to build as opposed to termination of the Levy project.

Given the guidance afforded by this Commission in Order No. PSC-11-0095-FOF-EI, and the preponderance of the evidence in the record, we find that PEF has satisfied the requirement to demonstrate intent to build the Levy project for which it seeks recovery of costs in this docket.

#### IV. Feasibility Analysis Completing the Levy Units 1 and 2 Project

To reach our decision, we began with a review of the requirement for PEF's long-term feasibility analysis of completing the project, and PEF's compliance with that requirement. We then analyzed the feasibility of completing the Levy project from an economic, regulatory, technical, and financial perspective, as well as considering the status of joint ownership, leading to our conclusion about the feasibility of completing the Levy project.

In an effort to mitigate the economic risks associated with the long lead-time and high capital costs associated with nuclear power plants, the Florida Legislature enacted Sections 366.93 and 403.519(4), F.S., during the 2006 legislative session. Section 366.93(2), F.S., requires this 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. We 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.

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<sup>17</sup> Order No. PSC-11-0547-FOF-EI, issued on November 23, 2011, in Docket No. 110009-EI, In re: Nuclear cost recovery clause; Order No. PSC-11-0095-FOF-EI, issued on February 2, 2011, in Docket No. 100009-EI, In re: Nuclear cost recovery clause; Order No. PSC-08-0749-FOF-EI, issued on November 12, 2008, in Docket No. 080009-EI, In re: Nuclear Cost Recovery Clause; and Order No. PSC-09-0783-FOF-EI, issued on November 19, 2009, in Docket No. 090009-EI, In re: Nuclear Cost Recovery Clause.

In Order No. PSC-08-0518-FOF-EI,<sup>18</sup> from the Levy Project Need Determination proceeding, at page 21, the Order contains the following language lending insight to our intent regarding the long-term feasibility of PEF's Levy project:

We will review the continued feasibility of Levy Units 1 and 2 during its annual nuclear cost recovery proceedings; thus, providing the appropriate checks and balances to ensure that the construction of the nuclear units continues to be in the best interest of PEF's ratepayers.

Additionally, at page 24, we provided specific guidance regarding the requirements necessary for PEF to satisfy Rule 25-6.0423(5)(c)5, F.A.C. The Order reads:

ORDERED that Progress Energy Florida, Inc. 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, non-binding capital cost estimates, and information regarding discussions pertaining to joint ownership.

We find that PEF satisfied the submission requirement as outlined in Rule 25-6.0423, F.A.C., and Order No. PSC-08-0518-FOF-EI.

We find that the forecasts, cost estimates, and analyses are necessary filing elements to assess PEF's 2012 Levy project feasibility analysis. These elements provide a holistic perspective for our decision regarding the approval of PEF's detailed long-term feasibility analysis of completing the project.

### Economic Feasibility

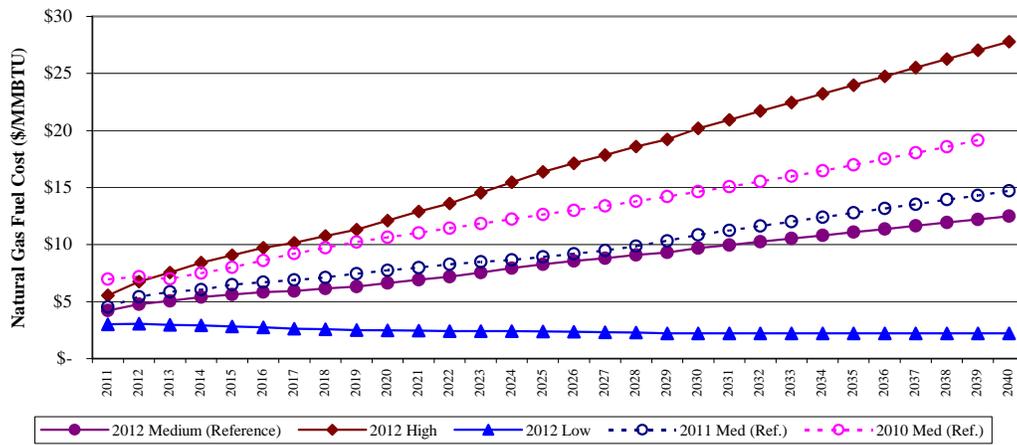
#### Updated Fuel Forecasts

PEF's updated fuel price forecast was developed from the same industry-accepted sources PEF has used since the need determination proceeding. Table 1 depicts the medium range price forecasts of natural gas used from the 2010 and 2011 Nuclear Cost Recovery Clause proceeding and this year's filing for low, mid-reference, and high ranges used to support PEF's feasibility analysis. We note that the mid-reference natural gas price forecast has declined since the forecast presented last year.

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<sup>18</sup> See Order No. PSC-08-0518-FOF-EI, issued August 12, 2008, in Docket No. 080148-EI, In re: Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by Progress Energy Florida, Inc.

Table 1: PEF Delivered Gas Price Forecasts  
(\$/MMBtu, \$Nominal)



Order No. PSC-11-0547-FOF-EI, p. 75; Order No. PSC-11-0095-FOF-EI, p. 26

In support of SACE’s assertion that full scale construction next year was not supported by near-term natural gas prices, SACE selected testimony from PEF witness Elnitsky’s discussion of how PEF was mitigating risks. The quotation SACE used was part of witness Elnitsky’s response to a question about PEF’s conclusions after evaluating the Levy project enterprise risks where witness Elnitsky began by observing:

The Company concluded from its qualitative analysis of the LNP enterprise risks this year that the LNP [Levy Nuclear Project] is still feasible, both qualitatively and quantitatively, over the long-term life of the Levy nuclear units, however, near term there is greater uncertainty and, thus, increased near term enterprise risks.

Further, SACE attempted to assert witness Elnitsky concluded that other utilities cancelled nuclear projects deemed infeasible because those other utilities relied on natural gas price forecasts that differed from PEF’s long-term natural gas price forecast.

While witness Elnitsky’s testimony continually emphasized uncertainty of natural gas prices in the near term, SACE contended that uncertainty, including low gas prices, will extend for the 60-year life of the project, thereby making the project infeasible.

We find that no evidence was offered to suggest the long-term natural gas prices PEF provided were unreasonable or not credible. SACE did offer a letter from Exelon Generation to the NRC that addressed cancellation of a nuclear plant in the merchant generation market “based on several factors contributing to an unfavorable economic outlook.” There was no reference to “permanent cheap natural gas” in the letter as a reason for the cancellation. In regard to the merchant generation market, witness Elnitsky testified, “It’s a different market, different situation. I can’t comment on how Exelon drew their conclusions.”

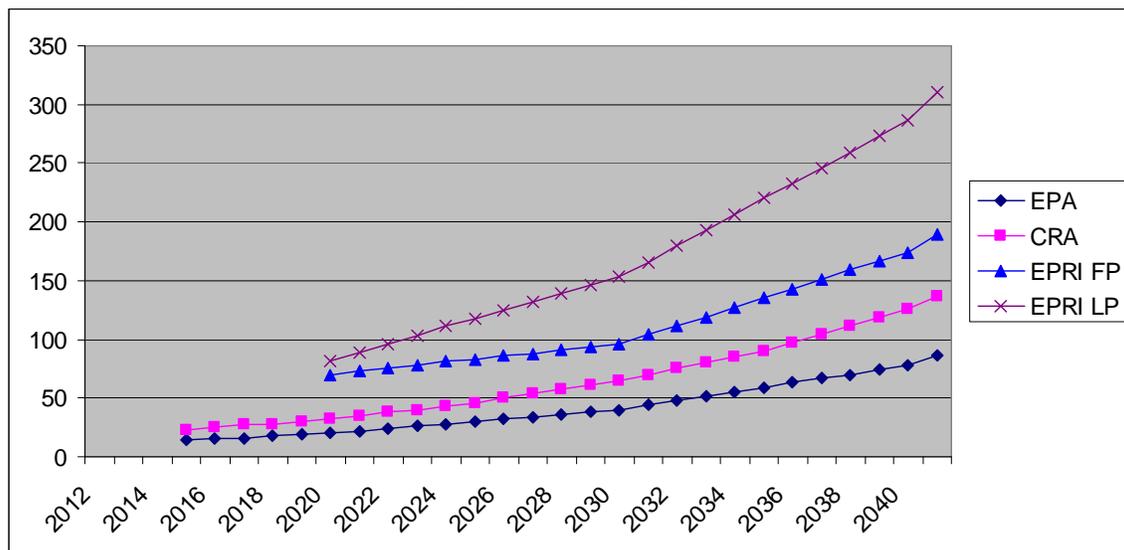
SACE also offered a short magazine article quoting the Chief Executive Officer of General Electric as saying natural gas was becoming “permanently cheap.” We find that the article with one individual’s uncorroborated, hearsay characterization of gas prices, with no further explanation, shall be weighted accordingly.

PEF, as in past years, continued to use multiple fuel price forecasts in its analysis. The range of forecast prices provides an expectation that actual prices will be included within the range, thereby lending credibility to PEF’s cost-effectiveness analysis. We find it is reasonable to accept PEF’s updated fuel cost data in this proceeding.

Environmental Forecasts

As with the fuel price forecasts, the updated environmental cost forecasts PEF submitted were developed from the same industry-accepted sources PEF has used since the need determination proceeding. Table 2 depicts the price forecasts of carbon dioxide (CO<sub>2</sub>) emission costs from four of the five scenarios presented in PEF’s cost-effectiveness analysis. The fifth scenario used a CO<sub>2</sub> emission cost of \$0.00 (zero).

Table 2: 2012 PEF CO<sub>2</sub> Emission Cost Forecasts  
(\$/Ton, \$Nominal)



As with the fuel cost forecast, we reject SACE’s argument that:

This Commission should not, as the cost of the Levy project continues to increase to astronomical levels, and projected in-service dates continue to be pushed out, continue to accept PEF’s feasibility analysis, which are based on long term projections that not only differ greatly from current reality, but also differ from the projections of other major utilities across the country.

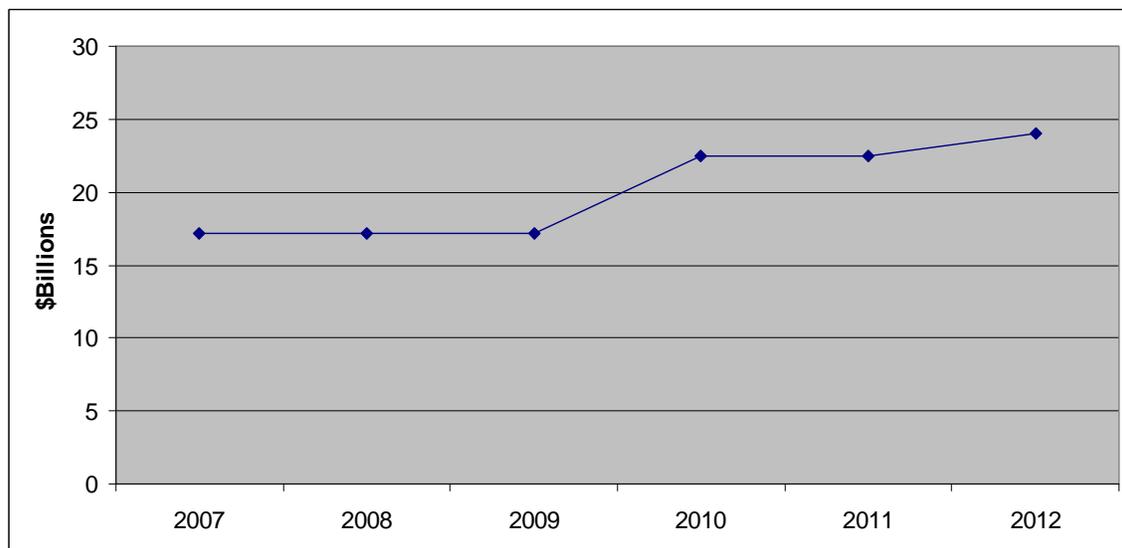
The same analysis applies here as in the discussion of the projected natural gas prices. SACE contends that PEF's feasibility analysis should be based on the cost of CO<sub>2</sub> emissions continuing at today's price, \$0.00 (zero), for the 60-year life of the Levy project. In contrast to PEF's cost projections from industry-accepted sources, SACE presented no evidence that such a scenario would occur. Likewise, SACE presented no evidence of what any other utility's long-term projections of emissions costs were.

None of the other parties contested the reasonableness or credibility of the emissions cost forecasts PEF submitted. We observe that PEF, as in past years, continued to use multiple price forecasts for CO<sub>2</sub> emissions in its analysis. The range of forecast prices provides an expectation that actual prices will be included within the range, thereby lending credibility to PEF's cost-effectiveness analysis. We find it is reasonable to accept PEF's updated environmental cost data in this proceeding.

### Project Cost Estimate

Table 3 depicts PEF's cost estimates for the Levy project each year since the 2007 need determination proceeding.

Table 3: PEF's Levy Project Cost Estimate  
At Then-Year Dollars, including AFUDC and Sunk Cost



Order No. PSC-11-0095-FOF-EI, p. 22; Order PSC-11-0547-FOF-EI, p. 76

FRF expressed doubt about the accuracy of PEF's cost estimate, and offered the observation that estimated project costs continue to increase. We note that FRF offered no evidence to support its opinion concerning PEF's forecasting accuracy. Other intervenors did not contest PEF's cost estimate, and no evidence was presented to refute or change PEF's estimate.

PEF estimated that the cost of the Levy project is \$24.1 billion, which includes about \$7 billion in carrying costs and about \$783 million in sunk costs thus far. The revised total cost estimate for 2012 represents a 6.7 percent increase over the cost estimates PEF provided in the 2010 and 2011 Nuclear Cost Recovery Clause proceedings.<sup>19</sup> This year, PEF witness Lyash observed:

. . . [T]he price of the Levy project really has only changed from its original 14.2 billion, I think, with the Certificate of Need, to the current 18.8 billion. The driver for that, as was questioned earlier, is the escalation as you move the project out with the passage of time.

PEF used this current project cost estimate in its 2012 cost-effectiveness analysis. Results of the analysis demonstrated that the cost-effectiveness of the project has declined since last year in comparison to the competing plan without nuclear generation, but still remains cost-effective. We find PEF's cost estimate remains reasonable.

#### Project Cost-Effectiveness

The Cumulative Present Value Revenue Requirements (CPVRR) economic analysis PEF submitted indicated that the Levy project is economically viable and has the potential to provide PEF and its customers with billions of dollars of savings over the life of the project. PEF witness Elnitsky, however, testified that the Project Management Team's qualitative feasibility analysis led to the conclusion that slower than expected economic recovery in Florida, uncertainty about the price of natural gas, as well as lack of clarity in Federal and state energy and environmental policies, among other factors, constituted an increase in the near term enterprise risk since last year. PEF's Senior Management Committee agreed and approved a revised Integrated Project Plan (IPP) in April 2012. The revised plan now places the in-service date of Levy Unit 1 in 2024 and the second unit 18 months later in 2025. PEF senior management believes the delay will help mitigate the near-term enterprise risks by providing more clarity and certainty to the qualitative factors evaluated while preserving the long term benefits of new nuclear generation. Table 4, below, shows the results of the updated CPVRR analysis based on the revised fuel and environmental cost forecasts, cost estimate, and in-service dates.

As shown in Table 4, the analysis results are that 10 of 15 fuel sensitivity scenarios, at 100 percent ownership, show savings over the non-nuclear alternative. At 80 percent ownership, the results are similar, and at 50 percent ownership, 9 of 15 scenarios show savings. The capital cost scenarios show similar results with each of the 3 ownership cases showing savings in 56 to 70 percent of the scenarios.

We acknowledge that the CPVRR analysis PEF submitted this year shows the Levy project is less cost-effective than last year's analysis; however, the analysis still shows the overall Levy project remains cost-effective.

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<sup>19</sup> See Order No. PSC-11-0095-FOF-EI, issued February 2, 2011, in Docket 100009-EI, In re: Nuclear Cost Recovery Clause, p. 22; Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket 110009-EI, In re: Nuclear Cost Recovery Clause, p. 76.

Table 4: PEF Summary CPVRR Review for 2012 NCRC Filing (\$2012)

Economic Results Summary Table (NCRC '12 Study)										
Fuel Sensitivities				CapEx Sensitivities						
Base Capital Reference Case	Low Fuel Reference	Mid Fuel Reference	High Fuel Reference	Mid Fuel Reference Case	LNP CapEx (15%)	LNP CapEx (5%)	Mid Fuel Reference	LNP CapEx +5%	LNP CapEx +15%	LNP CapEx +25%
<b>NCRC APR '12: 100% Ownership, 2024 COD Levy Case Versus All Gas CPVRR \$Million, 6.47% Discount Rate</b>										
No CO <sub>2</sub>	(\$12,022)	(\$3,907)	\$7,859	No CO <sub>2</sub>	(\$2,400)	(\$3,405)	(\$3,907)	(\$4,410)	(\$5,415)	(\$6,421)
EPA WM CO <sub>2</sub>	(\$7,785)	\$402	\$12,372	EPA WM CO <sub>2</sub>	\$1,910	\$905	\$402	(\$100)	(\$1,105)	(\$2,111)
CRA WM CO <sub>2</sub>	(\$5,113)	\$3,023	\$15,027	CRA WM CO <sub>2</sub>	\$4,531	\$3,526	\$3,023	\$2,520	\$1,515	\$510
EPRI Full CO <sub>2</sub>	(\$2,794)	\$5,347	\$17,448	EPRI Full CO <sub>2</sub>	\$6,855	\$5,850	\$5,347	\$4,844	\$3,839	\$2,834
EPRI Ltd CO <sub>2</sub>	\$3,037	\$11,184	\$23,224	EPRI Ltd CO <sub>2</sub>	\$12,692	\$11,687	\$11,184	\$10,682	\$9,676	\$8,671
<b>NCRC APR '12: 80% Ownership, 2024 COD Levy Case Versus All Gas CPVRR \$Million, 6.47% Discount Rate</b>										
No CO <sub>2</sub>	(\$9,613)	(\$3,121)	\$6,335	No CO <sub>2</sub>	(\$1,959)	(\$2,734)	(\$3,121)	(\$3,509)	(\$4,284)	(\$5,059)
EPA WM CO <sub>2</sub>	(\$6,284)	\$194	\$9,859	EPA WM CO <sub>2</sub>	\$1,357	\$582	\$194	(\$194)	(\$969)	(\$1,744)
CRA WM CO <sub>2</sub>	(\$4,182)	\$2,224	\$11,894	CRA WM CO <sub>2</sub>	\$3,387	\$2,611	\$2,224	\$1,836	\$1,061	\$286
EPRI Full CO <sub>2</sub>	(\$2,356)	\$4,045	\$13,757	EPRI Full CO <sub>2</sub>	\$5,208	\$4,432	\$4,045	\$3,657	\$2,882	\$2,107
EPRI Ltd CO <sub>2</sub>	\$2,228	\$8,639	\$18,176	EPRI Ltd CO <sub>2</sub>	\$9,802	\$9,026	\$8,639	\$8,251	\$7,476	\$6,701
<b>NCRC APR '12: 50% Ownership, 2024 COD Levy Case Versus All Gas CPVRR \$Million, 6.47% Discount Rate</b>										
No CO <sub>2</sub>	(\$7,007)	(\$2,852)	\$3,232	No CO <sub>2</sub>	(\$2,073)	(\$2,592)	(\$2,852)	(\$3,111)	(\$3,631)	(\$4,150)
EPA WM CO <sub>2</sub>	(\$4,803)	(\$655)	\$5,454	EPA WM CO <sub>2</sub>	\$124	(\$395)	(\$655)	(\$914)	(\$1,433)	(\$1,953)
CRA WM CO <sub>2</sub>	(\$3,423)	\$768	\$6,782	CRA WM CO <sub>2</sub>	\$1,546	\$1,027	\$768	\$508	(\$11)	(\$530)
EPRI Full CO <sub>2</sub>	(\$2,194)	\$2,039	\$8,027	EPRI Full CO <sub>2</sub>	\$2,817	\$2,298	\$2,039	\$1,779	\$1,260	\$741
EPRI Ltd CO <sub>2</sub>	\$812	\$5,084	\$11,101	EPRI Ltd CO <sub>2</sub>	\$5,863	\$5,344	\$5,084	\$4,825	\$4,305	\$3,786

Note: A positive number indicates the Levy Project would be more cost-effective than the non-nuclear alternative. Conversely, a negative number indicates the Levy Project would be less cost-effective than the non-nuclear alternative.

SACE suggested this Commission should reject PEF’s feasibility analysis because of the downward trend in the price forecast for natural gas and the lack of legislation placing a cost on carbon dioxide emissions. SACE asserted that the CPVRR analysis is based on “long term projections that differ from current reality and moreover differ from what other major utilities are forecasting.”

We find that, by definition, a projection of future prices shall be expected to differ from today’s prices, i.e. “current reality.” In the 2010 NCRC docket, we found “that the low fuel reference scenario should be discounted because it assumes natural gas prices to remain less than \$5.00/MMBtu over the next 30 years.”<sup>20</sup> The low fuel scenario in PEF’s 2012 analysis has prices projected below \$3.00/MMBtu for 28 of the next 30 years. PEF demonstrated that the only scenario not cost-effective for the medium fuel is the zero cost for CO<sub>2</sub> for the life of the project. The project remains cost-effective in the other 4 medium fuel scenarios at 100 percent ownership.

Furthermore, while contending that PEF’s natural gas and environmental price forecasts differ from those of other utilities, SACE did not provide any evidence to support such a claim.

<sup>20</sup> See Order No. PSC-11-0095-FOF-EI, issued February 2, 2011, in Docket 100009-EI, In re: Nuclear Cost Recovery Clause, p. 24.

In its brief, SACE included two citations from the hearing record to support its claim. The first is a letter from the NRC to PEF announcing acceptance of PEF's license amendment request for the extended power update of Crystal River Unit 3; the second is a Commission Audit report. Neither document contains any mention of price forecasts from other utilities.

We find the CPVRR analysis methodology PEF has consistently used, and which we have consistently accepted as a demonstration of cost-effectiveness, is reasonable. Therefore we find that the Levy project is economically feasible.

### Regulatory Feasibility

PEF acknowledged continued uncertainties in the regulation of federal and state emissions and energy policy, NRC approval of the COL, impacts of the nuclear disaster in Japan, and, most recently, the Waste Confidence Rule, to name a few. PEF witness Elnitsky discussed these uncertainties in depth, which he summarized as follows:

Extending the time for the commencement of the Levy project construction provides more time for the Florida economy to recover, for economic conditions for Florida customers to improve, for federal and state energy and environmental policy to develop, and therefore, for more certainty to develop with respect to the project's enterprise risks.

PEF witness Lyash testified about his confidence in regulatory aspects of the Levy project:

What's gotten more clear over time is the licensing and permitting risk, and I think that has generally subsided, with the waste competence issue being a recent exception to that. And so that's part of the basis for my confidence. The AP1000 design was certified, the Vogtle license was issued, the SCANA license was issued; they're under construction. The Chinese are well along. The Part 52 licensing process is being exercised very effectively.

The Levy project has really no substantial deviations from that. It should follow in its footsteps. I see no reason why it shouldn't. So I'm confident of our ability to license it.

The intervenors did not discuss concerns about the regulatory uncertainties, and none provided evidence suggesting the Levy project was not feasible from a regulatory standpoint.

We find that PEF has an effective process in place to provide its management with an ongoing, detailed analysis of the uncertainties and risks that could impact its licensing, approval, and certifications necessary for project success, and that the project is feasible from a regulatory standpoint.

### Technical Feasibility

PEF witness Elnitsky observed that the NRC approved all aspects of the Westinghouse AP1000 technology that PEF plans to use in the Levy project, and issued COLs for plants in Georgia and South Carolina that are currently under construction. Construction of these new plants using the AP1000 technology is well underway in China. In addition, the NRC is continuing its review of the Levy project Combined Operating License Application. Witness Elnitsky summarized the technical feasibility of the Levy project testifying, “[T]here is no reason to believe that the AP1000 nuclear reactor design cannot be successfully installed at the Levy site.”

None of the intervenors presented any testimony or exhibits specifically addressing the technical feasibility of the Levy project.

We find the evidence supports that the Levy project is technically feasible.

### Funding Feasibility

PEF’s access to funding for the Levy project was not mentioned in any testimony, exhibits, or post-hearing briefs. However, we note that the nuclear power plants currently under construction in Georgia and South Carolina suggest that necessary funding was available and obtained for these projects. We also note that PEF witness Elnitsky’s testimony last year indicated that financial rating agencies responded positively to announcement of the merger between PEF and Duke Energy.<sup>21</sup> These observations suggest that PEF also will have access to necessary funding for the Levy project.

We continue to find PEF's current access to capital markets as confirmation of continued funding feasibility.

### Joint Ownership

In the 2011 NCRC proceeding, PEF witness Elnitsky testified that PEF could go forward with the Levy Project without joint ownership.<sup>22</sup> This year, PEF witness Lyash responded to a cross-examination request for an update on partners in the Levy project:

The situation with respect to partners in the project, I don't think, has really materially changed recently. We have from the beginning had a number of potential partners who expressed significant interest in the project. They continue to express significant interest in the project. We keep them apprised of its progress, but we have not reached the point with any of those potential partners where they have committed to close on an ownership share plan.

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<sup>21</sup> See Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket No. 110009-EI, In re: Nuclear cost recovery clause, p. 80-81.

<sup>22</sup> Id., p. 81.

We find that a preponderance of the evidence that joint ownership is not a project feasibility concern at this time.

Based on the foregoing review of the evidence regarding the economic, regulatory, and technical factors impacting the long-term feasibility of completing the Levy project, we find the overall project remains feasible, and therefore we accept and approve PEF's long-term feasibility analysis of completing the Levy project.

#### V. Estimated All-Inclusive Cost of the Proposed Levy Units 1 and 2 Nuclear Project

PEF stated that it demonstrated that the total estimated cost for the Levy project including AFUDC and sunk costs is approximately \$24.1 billion. No party presented any contrary evidence or disputed this estimate. Therefore, as a factual matter, the total estimated all-inclusive cost for the proposed Levy Units 1 and 2 nuclear project has been established.

PEF estimated that the cost of the Levy project is \$24.1 billion, which includes about \$7 billion in carrying costs and about \$783 million in sunk costs. The revised total cost estimate for 2012 represents a 6.7 percent increase over the cost estimates PEF provided in the 2010 and 2011 NCRC proceeding.

FRF expressed doubt about the accuracy of PEF's cost estimate and offered the observation that the estimated cost of the project continued to increase. We would note that FRF did not offer evidence or argument to support its doubt concerning estimated project cost escalation. Other intervenors did not contest PEF's cost estimate, and no evidence was presented to refute or change PEF's estimate. PEF used its current project cost estimate in conducting its cost-effectiveness analysis. Results of the analysis demonstrate that the cost-effectiveness of the project has declined in comparison to the competing plan without nuclear generation, but it still remains cost-effective under a variety of scenarios.

We find that PEF's cost estimate is reasonable, and we accept PEF's estimated cost of approximately \$24.1 billion for the Levy project.

#### VI. Estimated Commercial Operation Date of Levy Units 1 and 2

PEF witness Elnitsky testified that the current estimated in-service dates for the Levy units were revised to 2024 and 2025. In addition, both PEF's April 2012 Levy Nuclear Project Integrated Project Plan and project schedules for Levy show that PEF plans for the units to enter service in 2024 and 2025. Witness Elnitsky further testified about PEF's project evaluation process and rationale for revising the dates, based on uncertainty about Florida's economic recovery, the projected price of natural gas, and lack of clarity in Federal and state energy and environmental policy.

FRF voiced doubts about the 2024 and 2025 in-service dates. However, there is no evidence in the record suggesting the revised dates are not achievable, nor are they contested by any party.

Therefore, we accept PEF's estimated commercial operations date for Levy Units 1 and 2 as 2024 and 2025, respectively.

VII. Project Management, Contracting, Accounting and Cost Oversight Prudence for the Levy Units 1 and 2 Project

PEF witnesses Garrett, O'Cain, and Elnitsky provided reviews of PEF's major project management and accounting control systems in place for the Levy project during 2011 and identified key activities and changes that took place in these systems during that time. Witness Garrett opined that the project accounting and cost oversight controls that PEF utilizes to ensure the proper accounting treatment for the LNP and the CR3 uprate project have not substantively changed since 2009. He further stated that these controls were found to be reasonable and prudent in Docket Nos. 090009-EI, 100009-EI, and 110009-EI. Similarly, witnesses O'Cain and Elnitsky stated that the Company's current LNP project management and cost oversight controls policies and procedures are substantially the same as the policies and procedures reviewed and previously determined to be reasonable and prudent by this Commission.

In addition to providing a review of the systems, controls, policies and procedures PEF had in place during 2011, witness O'Cain outlined certain enhancements PEF implemented in this area during 2011:

During 2011 there were limited field activities for both LNP generation and transmission and as a result, the Company's general oversight and management plan did not change in 2011. PEF did however implement several enhancements to continuously improve the oversight and management of contractors for the LNP. Corporate and nuclear contact procedures were further reviewed and revised in 2011. Overall sixty-one (61) corporate, nuclear, and EPC procedures were revised and eight (8) new procedures were created in 2011. Of these eight new procedures, two (2) were new PMCoE (Project Management Center of Excellence organization) procedures issued in 2011. Most of these updates were minor revisions or updates to existing policies and procedures. One substantive procedure issued during 2011 was the "Development, Planning, and Execution of Large Construction Projects." This procedure updated the project flow and approval gate process, provided additional guidance for formal project review requirements, and formally aligned NGPP (New Generation Programs and Projects) project management processes with PMCoE procedures.

In addition, in 2011, NGPP implemented an enhancement to the LNP Contract Administration function. Bi-weekly "Levy EPC Change Order, Letters and Invoice Review Meetings" were conducted to discuss upcoming EPC contract invoice milestone, any invoice issues identified, and any open/upcoming change orders and letters that required action.

Commission staff audit witnesses Coston and Hallenstein reviewed PEF's project management, accounting, and related controls in their 2012 audit report on the Crystal River Unit 3 uprate and the Levy Nuclear projects.

Commission staff accounting audit witness Small provided testimony and sponsored the 2012 accounting audit report of 2011 Levy project costs. As noted in this testimony, the Commission staff's audit activities included reconciliation and verification of 2011 project costs to the general ledger, monthly accrual balances and the Company's filing in the 2012 Nuclear Cost Recovery Clause Docket.

Our review of witnesses Coston, Hallenstein and Small's audit reports revealed no recommendations or issues identified by the Commission audit staff concerning project management or project controls. Witnesses Coston and Hallenstein confirmed this by stating during the summary of their testimony at hearing that they: "had no specific recommendations concerning the company's project management internal controls employed by both projects for the current period." Witness Small responded to the question of were there any audit findings concerning the Levy project by answering "no."

OPC, PCS Phosphate, FRF, FIPUG and FEA address in their post-hearing briefs address whether PEF's Levy project management, contracting, accounting and cost oversight controls employed during 2011 were inconsistent with the parties' approved settlement agreement. Of those, only SACE asserted that had PEF employed reasonable and prudent project management, contracting accounting and cost oversight systems during 2011, push back of the projected in-service dates and the associated increase in the estimated cost of the Levy project would have been prevented.

From our review of the record, we found that witness Elnitsky provided information concerning the change to the Levy project schedule, and how the change in schedule impacted the estimated total project cost and 2012 feasibility study. Witnesses Elnitsky and Lyash presented information concerning the fundamental reasons why the project team suggested to the Senior Management Committee (SMC) that the recommended changes to the project schedule should be adopted and reflected in the project's controlling integrated project plan (IPP) document. Witness Lyash also discussed the revised IPP as approved by the SMC. Furthermore, in its post-hearing brief, SACE did not discuss or present additional support for its position on project controls and oversight, and instead relied upon its discussion under section III of this Order (intent to build).

We would point out 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 have been known, at the time the decision was made."<sup>23</sup> Applying this prudence standard, and based on our review of the record, we find that PEF's Levy project management and accounting and related controls were subjected to a reasonable level of review sufficient to determine prudence. There is no record evidence that identified any PEF Levy project management or accounting decisions that were

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

unnecessary or were unreasonable. We find no evidence of imprudent 2011 project management and related controls and oversight has been reasonably demonstrated by any of the parties.

Therefore, we find that project management, contracting, accounting and cost oversight controls employed by PEF for the Levy project during 2011 were reasonable and prudent.

VIII. Prudently Incurred Costs and Final True-Up Amounts for the Levy Units 1 and 2 Project

As previously stated, 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. We note that beyond the SACE argument discussed below, no other concerns were identified or presented by any other party regarding the reasonableness or prudence of PEF's 2011 Levy project incurred costs.

PEF witness Garrett provided support for the activities and the method used to determine the requested recovery amounts. PEF witness O'Cain provided descriptions of the activities and project cost variances associated with the final 2011 costs and true-up amounts for the Levy project.

Witness Garrett stated that the data used to support these requests were taken from PEF's books and records that are kept in accordance with generally accepted accounting principles and practices, provisions of the Uniform System of Accounts, and other accounting rules and orders as established by this Commission.

Witness Garrett identified the 2011 Levy project costs PEF believes were prudently incurred. These amounts include: capital costs of (CONFIDENTIAL NUMBER A)<sup>24</sup> (\$67,092,100 jurisdictional), O&M expenses of \$1,258,687 (\$1,154,469 jurisdictional), and carrying costs of \$48,658,064.

Witness O'Cain stated:

2011 LNP costs were incurred in connection with licensing application activities to support the Levy Combined Operating License Application to the Nuclear Regulatory Commission, engineering activities in support of the COLA, and activities under PEF's LNP Engineering, Procurement and Construction contract with Westinghouse and Shaw, Stone and Webster (the "Consortium"). In addition, costs were incurred for Levy Transmission strategic land acquisitions. PEF took appropriate steps to ensure that the 2011 costs were reasonable and prudent and that all of these costs were necessary to the LNP.

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<sup>24</sup> Confidential Exhibit 2, the sum of amounts on page 19 lines 8 and 21, page 21 lines 10 and 25.

The final 2011 Levy project costs were compared to prior Commission-approved recovery amounts to determine a net final true-up amount for 2011 as a \$12,649,655 over recovery. Witness Garrett states that this amount should be approved as reasonable and prudent since it was calculated in accordance with Rule 25-6.0423, F.A.C.

The requested final 2011 Levy project true-up amount is the summation of the following components: \$12,675,090 over projection of preconstruction capital costs, \$260,104 over projection of O&M costs, and \$285,540 under projection of carrying costs.

In reviewing the post-hearing positions of the parties, we note that no specific items were identified concerning PEF's requested final 2011 incurred costs and final true-up amount. Our review of the Commission staff's accounting audit and management review audit identified no recommendations concerning PEF's 2011 Levy project costs.

We find that PEF's information was subjected to a reasonable level of review sufficient to determine the prudence of its 2011 Levy project costs and true-up amount. We also find that PEF has demonstrated the requested 2011 Levy project costs, activities and final true-up requests are reasonable and prudent.

Therefore we approve the following amounts as prudently incurred 2011 Levy project costs: capital costs of (CONFIDENTIAL NUMBER A) (\$67,092,100 jurisdictional), O&M expenses of \$1,258,687 (\$1,154,469 jurisdictional), and carrying costs of \$48,658,064. The resulting final 2011 true-up amount of \$12,649,655 over recovery shall be used in determining the 2013 approved Nuclear Cost Recovery Clause recovery amount.

#### IX. Reasonableness of Estimated 2012 Costs and Estimated True-Up Amounts for PEF's Levy Units 1 and 2 Project

PEF witness Foster provided support for the activities and method of calculation used to determine the requested recovery amounts. PEF witness Elnitsky provided descriptions of the Levy project 2012 activities.

Witness Foster stated that the schedules provided with his testimony were true and accurate and filed in accordance with requirements of the Nuclear Cost Recovery Clause and other rules and orders as approved by this Commission.

Witness Foster identified the 2012 actual/estimated Levy project costs PEF believes are and will be reasonably incurred. These costs include: capital costs of (CONFIDENTIAL NUMBER B)<sup>25</sup> (\$21,391,932 jurisdictional), O&M expenses of \$1,010,929 (\$927,458 jurisdictional), and carrying costs of \$48,548,055.

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<sup>25</sup> Confidential Exhibit 4, the sum of amounts on page 16 lines 8 and 21, page 18 lines 10 and 25

As to activities PEF is currently and will undertake on the Levy project, witness Elnitsky stated:

The company will continue work necessary to obtain the LNP COL from the NRC in 2012 and 2013. This work includes licensing and engineering work to address the NRC Fukushima Near Term Task Force recommendations. It also includes the licensing and engineering work to support the Company during the contested and mandatory hearing process . . . .

Licensing and engineering work is also necessary in 2012 and 2013 to continue to support environmental permitting and implementation of conditions of certification (CoC). The environmental permitting work includes work on the USACE Section 404 permit for the LNP . . . Environmental work scope will include preconstruction environmental monitoring, wetland mitigation plan implementation, aquifer performance testing, and other site CoC.

The Company further continues its participation in industry groups to advance the AP1000 design and operation. This includes the AP1000 owners group . . . , the NEI New Plant Working Group, NEI Nuclear Plant Oversight Committee and INPO New Plant Deployment Executive Working Group . . .

PEF will continue to provide project management for all these tasks and activities for the LNP in 2012 and 2013.

Actual estimated 2012 project costs were compared to prior approved recovery amounts to determine the estimated true-up amount for 2012. Witness Foster identified this amount as a \$13,013,480 over recovery and opined that it should be approved as reasonable since it was calculated in accordance with Rule 25-6.0423, F.A.C.

The requested estimated 2012 Levy project true-up amount is the summation of the following components: a \$12,617,788 over projection of preconstruction capital costs, \$477,616 over projection of O&M costs, and an \$81,924 under projection of carrying costs.

In reviewing the post-hearing positions of the parties, we note that no specific items were identified concerning PEF's requested 2012 actual/estimated and estimated true-up amounts, or whether the project activities were inconsistent with the requirements of the Settlement Agreement. Furthermore our analysis of Commission staff's management review identified no issues which would affect PEF's 2012 Levy project costs.

Based on a preponderance of the evidence in the record, we find that PEF has demonstrated the reasonableness of its requested 2012 actual/estimated and estimated true-up Levy project amounts. Therefore we approve as reasonable the following Levy project actual/estimated 2012 costs: capital costs of (CONFIDENTIAL NUMBER B) (\$21,391,932 jurisdictional), O&M costs of \$1,010,929 (\$927,458 jurisdictional) and carrying costs of \$48,548,055. The resulting estimated 2012 true-up of \$13,013,480 over recovery shall be used in determining the 2013 Nuclear Cost Recovery Clause recovery amount.

X. Reasonableness of Projected 2013 Costs for PEF's Levy Units 1 and 2 Project

In reviewing the post-hearing positions of the parties, we note that neither the parties nor Commission staff identified any specific issues concerning PEF's requested 2013 Levy project projected costs or whether the activities were inconsistent with the Settlement Agreement. SACE's stated concerns are carryovers of their earlier positions involving project cost eligibility under Section 366.93, F.S., project feasibility and imprudent project management, and are addressed elsewhere in this Order.

PEF witness Foster provided support for the activities and the method of calculations used to determine the requested recovery amounts. PEF witness Elnitsky provided descriptions of the Levy project 2013 activities.

Witness Foster stated that the schedules provided with his testimony were true and accurate and filed in accordance with requirements of the Nuclear Cost Recovery Clause and other rules and orders approved by this Commission, including the Settlement Agreement as approved in Docket No. 120022-EI.

Witness Foster identified the 2013 projected Levy project costs PEF believes are reasonably forecasted. These costs include: capital costs of (CONFIDENTIAL NUMBER C)<sup>26</sup> (\$95,888,097 jurisdictional), O&M expenses of \$1,106,148 (\$1,025,100 jurisdictional), and carrying costs of \$22,089,049.

Witness Foster presented PEF's projected 2013 Levy project costs for which they are requesting recovery. As shown, PEF is requesting that we find as reasonable, projected 2013 Levy project costs in the amount of \$40,312,451. This amount includes \$17,198,302 in preconstruction costs, \$1,025,100 in O&M expenses, and carrying costs of \$22,089,049.

Witness Foster noted the reclassification of Levy land, at year-end 2012, to Plant Held for Future Use. In addition, the transfer from the Nuclear Cost Recovery Clause (effective with the first billing cycle in January 2013) to base rate collection of the annual retail revenue requirement associated with the carrying costs on deferred tax assets was also incorporated. These adjustments were required by the terms and conditions of the Settlement Agreement as approved in Docket No. 120022-EI.

In support of PEF's request, PEF witness Elnitsky identified the activities associated with the projected amounts that PEF plans to undertake during 2013 on the Levy project. In support, witness Elnitsky stated:

The company will continue work necessary to obtain the LNP COL from the NRC in 2012 and 2013. This work includes licensing and engineering work to address the NRC Fukushima Near Term Task Force recommendations. It also includes the licensing and engineering work to support the Company during the contested and mandatory hearing process.

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<sup>26</sup> Confidential Exhibit 5, the sum of amounts on page 11 lines 8 and 21, page 13 lines 11 and 27.

Licensing and engineering work is also necessary in 2012 and 2013 to continue to support environmental permitting and implementation of conditions of certification (CoC). The environmental permitting work includes work on the USACE Section 404 permit for the LNP. Environmental work scope will include preconstruction environmental monitoring, wetland mitigation plan implementation, aquifer performance testing, and other site CoC.

The Company further continues its participation in industry groups to advance the AP1000 design and operation. This includes the AP1000 owners group . . . , the NEI New Plant Working Group . . . , NEI Nuclear Plant Oversight Committee and INPO New Plant Deployment Executive Working Group.

PEF will continue to provide project management for all these tasks and activities for the LNP in 2012 and 2013.

Based on a preponderance of the evidence in the record, we find that PEF has demonstrated the reasonableness of its projected 2013 Levy project amounts. Therefore we approve as reasonable the following Levy project 2013 projected costs: capital costs of (CONFIDENTIAL NUMBER C) (\$95,888,097 jurisdictional), O&M expenses of \$1,106,148 (\$1,025,100 jurisdictional), and carrying costs of \$22,089,049. Furthermore, we approve \$40,312,451 as Levy's 2013 recoverable project costs for use in determining the total 2013 Nuclear Cost Recovery Clause recovery amount.

XI. Prudence of Project Management, Contracting, Accounting, and Cost oversight for the Crystal River Unit 3 Uprate Project During 2012

PEF witnesses Garrett and Franke provided reviews of PEF's major project management and accounting control systems in place during 2011 for the CR3 Uprate project and identified key activities and changes that took place in these systems. Witness Garrett opined that the project accounting and cost oversight controls that PEF utilizes to ensure the proper accounting treatment for the Levy project and CR3 Uprate projects have not substantively changed since 2009. He stated that these controls were found to be reasonable and prudent in Docket Nos. 090009-EI, 100009-EI, and 110009-EI. Witness Garrett testified that during 2011, the review and testing of controls were conducted by the Audit Services Department, and conclusions/results of the Department's activities were reviewed and approved by both the Steering Committee and the Compliance Team chairpersons. Based on these internal audits, PEF's management has determined that PEF maintained effective internal control over financial reporting and identified no material weaknesses within the required Sarbanes-Oxley controls during 2011. Witness Garrett further stated that with respect to external audits, Deloitte and Touche, PEF's external auditors, determined that the Company maintained internal control over financial reporting during 2011.

Similarly, witness Franke stated that the Company's current CR3 project management and cost oversight control policies and procedures also are substantially the same as the policies and procedures reviewed and previously determined to be reasonable and prudent by this Commission.

Commission staff accounting audit witness Small provided testimony and sponsored the 2012 accounting audit report on 2011 CR3 Uprate project costs. As noted in this testimony, the Commission staff's audit activities included reconciliation and verification of 2011 project costs to the general ledger, monthly accrual balances and the Company's filing in the 2012 Nuclear Cost Recovery Clause docket. From his testimony, witness Small responded to a question of whether there were any audit findings concerning the CR3 project:

Yes, Audit Finding No. 1 provides information on legal costs included as recoverable O&M expenditures on Schedule T-4 of the filing that the Company states will be removed by posting a journal adjustment in April 2012 that will reduce next years Schedule T-4 filing by \$12,683 (\$11,716 jurisdictional).

We note that witness Small identified no other findings in his audit report concerning CR3 Uprate project costs in 2011.

Commission staff audit witnesses Coston and Hallenstein reviewed PEF's project management, accounting, and related controls in their 2012 audit report on the Crystal River Unit 3 Uprate and the Levy Nuclear projects. Our review of witnesses Coston and Hallenstein's report revealed no recommendations or identified issues concerning project management or project controls. Witnesses Coston and Hallenstein confirmed this by stating during the summary of their testimony at hearing that they: "had no specific recommendations concerning the company's project management internal controls employed by both projects for the current period."

In his rebuttal testimony, PEF witness Franke stated:

[n]o witness has filed testimony in this proceeding disputing the prudence of any specific cost incurred by PEF on the CR3 Uprate project in 2011. Finally, no witness has filed testimony in this proceeding disputing the prudence of PEF's CR3 Uprate project management, contracting, accounting and cost oversight controls.

After reviewing the record, we agree with PEF's witness Franke and find that no evidence was presented by any other party that suggested or demonstrated the project management and related controls PEF employed during 2011 on the CR3 Uprate project were unreasonably or imprudently implemented.

We find, however, that the intervenors' stated concerns have more to do with the prudence of any project management decisions PEF made in 2011 than with actual project management systems, controls and oversight employed by PEF during 2011.

In its most basic form, intervenors argued that PEF's management decision to continue making expenditures on the CR3 Uprate project in 2011 was imprudent, given the uncertainty surrounding the ongoing repairs of the CR3 Unit's containment building. They asserted that PEF failed to show that continued expenditures after the second delamination event in March of 2011, or after the third delamination event that occurred in July 2011, were prudent. As such,

intervenors argued this Commission should find PEF imprudent or, in the alternative, defer making any decision on the prudence and reasonableness of costs or deny recovery of them until after a decision concerning the repair to the CR3 containment building has been made.

To address the concern of imprudent management decisions resulting in the continuation of expenditures on the CR3 Uprate project in 2011, we reviewed the record on PEF's management and project actions concerning the CR3 Uprate project during 2011. We determined witness Franke was the only witness at hearing who directly addressed the intervenors' concern.

We note that witness Franke presented the following CR3 Uprate project information:

In 2011, prior to the March 14, 2011 delamination, PEF was proceeding with a project plan and CR3 Uprate project schedule to complete the EPU work in a then planned 2013 CR3 re-fueling outage. PEF obviously, then, had incurred and committed to incur EPU costs in the first quarter of 2011, prior to and immediately after the mid-March 2011 delamination, that were not amenable to revision as a result of this event. Subsequent to this delamination event, however, PEF evaluated the EPU phase work and determined that the reasonable course of action was to take steps to preserve the option of completing the CR3 Uprate work in the current CR3 outage without unnecessarily incurring costs for the CR3 Uprate project.

To develop the current CR3 Uprate project schedule, PEF evaluated the EPU phase work to identify what work was critical to proceed with to maintain a schedule to complete the EPU during the current CR3 outage and what work was not on this critical path. Based on this evaluation, PEF slowed down and postponed work on the EPU phase in 2011 and 2012 to minimize the CR3 Uprate project costs while preserving the Company's ability to complete the EPU work during the current CR3 outage and implement the power uprate when CR3 returns to service.

Witness Franke went on to state:

For example, no EPU phase work has been or is being accelerated, all overtime work has been postponed, and only regular work hours are permitted on EPU work that PEF has determined needs to be done to maintain the current CR3 Uprate project schedule. PEF also delayed the selection of a construction contractor for the EPU phase. PEF individually evaluated each contract and change order for the EPU phase work before execution. For contracts or change orders below \$100,000, the EPU phase project manager performed this evaluation; for contracts or change orders at or above \$100,000, the project manager conducted this evaluation and made recommendations with respect to execution of the contract or change order that were reviewed by the manager of nuclear projects and senior management. No contract or change order at or above \$100,000 for the EPU phase work was executed without senior management

approval. That approval was not granted unless there was a demonstration that the work under the contract or change order was reasonable and necessary to preserve the Company's ability to complete the EPU work on the current CR3 Uprate project schedule. This type of evaluation was conducted for each item of work for the EPU phase of the CR3 Uprate project.

Witness Franke also stated:

PEF was able to reallocate project management resources and reduce project management expenditures for the CR3 Uprate project by 4.7 million in 2011. PEF's 2011 Power Block Engineering, procurement, and related construction costs were reduced by \$34.2 million.

We note that the only other witness, besides PEF witnesses, that offered testimony concerning the prudence of CR3 Uprate project management decisions in this docket was OPC witness Jacobs. Witness Jacobs indicated in his testimony that he was asked to assist the OPC to conduct a review and evaluation of requests by PEF for authority to collect historical and projected costs associated with the "EPU" project being pursued at CR3 through the capacity cost recovery clause. In addition, the witness described that he assisted the OPC in the issuance of interrogatories and requests for production of documents, evaluated issues related to project schedule and cost, reviewed internal documents, status reports and correspondence with regulatory authorities and reviewed responses to discovery requests.

We observed from our review of witness Jacobs's testimony that it focused on 2012 and 2013 issues, and did not focus on or address any of the 2011 prudence issues concerning management decisions, actions, or costs for the CR3 project.

OPC argued that if this Commission decides not to defer, until 2013, its determination of prudence on EPU expenditures that could have been deferred or delayed or avoided, but were not, they should be considered imprudently incurred. OPC stated:

OPC witness Dr. Williams Jacobs provided testimony in support of this position. Because of all the inherent uncertainty surrounding the decision to repair or retire CR3 following the March 14, 2011 delamination, OPC witness Jacobs suggested:

[t]he Commission to ensure that PEF minimize all expenditures related to the CR3 EPU project. I recommend that the avoidable or deferrable remaining EPU construction work not be contracted for or performed until late in the containment repair process when the success of the repair and NRC acceptance of that repair is assured. In addition, this Commission should require that PEF provides timely updates on the status of the containment repair decision and update its EPU project plan, even if it requires supplemental testimony.

While we do not disagree with the general direction of witness Jacobs's actual suggestion, the assertion by OPC that witness Jacobs's testimony supports OPC's argument in this issue shall not be used as a basis for our determination of prudence concerning managerial

decisions made in 2011. We note witness Jacob's testimony which OPC refers to in its brief was offered by the witness in response to the following question: "What do you recommend regarding future expenditures for the CR3 EPU Project?" Since this evidence was offered in response to questions about future expenditures, this Commission, given our prudence review standard, will not rely on this witness's statement in making any decisions concerning the prudence of historical actions or incurred costs.

Based on a review of the record and information contained in briefs offered by intervenors in this docket, we identified no evidence that directly challenged the prudence of any specific managerial action or decision PEF made in 2011. We find that PEF demonstrated that its decisions and actions concerning the CR3 Uprate project were reasonable in light of the uncertainties affecting the project which were known to management in 2011.

The intervenors also argued that we cannot make an informed decision of prudence concerning the CR3 Uprate project 2011 costs or activities until a final decision to repair or retire the CR3 Unit has been made by PEF. Therefore, we defer our decision on prudence until after that decision is known. We would again point out that pursuant to long standing 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 have been known, at the time the decision was made. Applying this standard, we find that any knowledge which may be gleaned from the future resolution of a question which was identified during the period under review is unnecessary in the making of a prudence determination of actions that actually occurred during the period under review. We also find that it is necessary to review and understand what actions were taken in light of any known unresolved uncertainty. Future resolution of the uncertainty will not change the facts and circumstances faced by managers when they made their actual decisions. We agree with the following statement which was offered by PEF's in its brief:

The historical CR3 Uprate project decisions in 2011 have been made and the 2011 costs incurred and nothing that occurs after 2011 changes those decisions.

Based on our review, we find there is sufficient evidence in the record to allow a thorough review of the decisions PEF's managers made during 2011, thereby allowing us to make a determination concerning the prudence of 2011 CR3 Uprate project activities and costs.

Based on the foregoing review of the evidence in the record, we find that PEF's 2011 CR3 Uprate project management and accounting and related controls were subjected to a reasonable level of review sufficient to determine prudence. We find there is no record evidence identifying any PEF CR3 Uprate project 2011 management decisions or accounting system oversight activities that were shown to be unneeded or implemented in an unreasonable manner. Therefore, we find that PEF's project management, contracting, accounting, and cost oversight controls were reasonable and prudent for the CR3 Uprate project in 2011.

## XII. Prudence of Crystal River Unit 3 Uprate Project Expenditures During 2012

This section is similar to that discussed in Section XI of this Order, but has as its focus the prudence of incurring costs for the CR3 Uprate project in 2011 as compared to the prudence of management decisions that were made for the Uprate project during 2011.

PEF witness Garrett provided testimony concerning PEF's final actual costs and expenditures made for the CR3 Uprate project in 2011. Witness Garrett stated that the data used supporting the information presented was taken from PEF's books and records that are kept in accordance with generally accepted accounting principles and practices, provisions of the Uniform System of Accounts, and other accounting rules and orders as established by this Commission.

PEF witness Franke provided testimony concerning PEF's actual costs incurred during 2011 for the CR3 Uprate project. Witness Franke stated that PEF reasonably and prudently incurred the 2011 CR3 Uprate project costs which were necessary for the continuation of work for the EPU phase, and that PEF's 2011 CR3 Uprate project costs were reasonably and prudently incurred.

Commission staff accounting audit witness Small provided testimony and sponsored the 2012 accounting audit report of 2011 CR3 Uprate project costs. As noted in this testimony, the Commission staff's audit activities included reconciliation and verification of 2011 project costs to the general ledger, monthly accrual balances and the Company's filing in the 2012 Nuclear Cost Recovery Clause Docket. From his testimony, witness Small responded to a question of whether there were any audit findings concerning the CR3 Uprate project:

Yes, Audit Finding No. 1 provides information on legal costs included as recoverable O&M expenditures on Schedule T-4 of the filing that the Company states will be removed by posting a journal adjustment in April 2012 that will reduce next years Schedule T-4 filing by \$12,683 (\$11,716 jurisdictional).

We note that witness Small identified no other findings in his audit report concerning CR3 Uprate project costs in 2011.

Furthermore, OPC stated within its brief concerning the 2011 expenditures:

OPC applauds PEF's efforts to evaluate and scale back EPU expenditures in 2011 immediately following the delamination, but those efforts to slow spending may not be enough if Duke ultimately decides to retire CR3 in 2012 or 2013. It was a good first step. However, OPC maintains that PEF should continue this evaluation process and postpone all deferrable or avoidable EPU expenditures until PEF decides to implement the repair to CR3 in earnest. At the very least, PEF should halt or minimize incurring additional expenditures and refocus its effort on implementing the EPU in the R-17 refueling outage and defer those deferrable expenditures with the outage as the goal for completion of the EPU.

As described in section XI of this Order, witness Franke presented testimony concerning PEF's management and project based actions concerning the CR3 Uprate project during 2011. These actions are the basis for costs that were incurred during 2011. In addition to his testimony, witness Franke was also cross-examined in detail by the intervenors concerning PEF's management decisions, actions, and whether any costs associated with contracts for the CR3 Uprate project during 2011 could have been avoided or deferred.

PEF argued in its brief:

As explained by Mr. Franke, subsequent to the March 2011 delamination, PEF evaluated the CR3 Uprate project work and determined that the reasonable course of action was to take steps to preserve the Company's ability to complete the CR3 Uprate in the current CR3 outage, without unnecessarily incurring costs for the project in 2011, while assessments regarding the potential repair of the CR3 containment building continued. PEF prudently minimized CR3 Uprate costs in 2011 to ensure that only those costs necessary to continue with the CR3 Uprate project if CR3 was repaired were incurred until a final decision to repair CR3 is made.

PEF witness Franke further asserted that "Dr. Jacobs (the only intervenor witness to address CR3 issues) did not testify that any historical 2011 CR3 Uprate costs was unnecessary for the project or otherwise imprudently incurred. The evidence, then, is undisputed that PEF's 2011 CR3 Uprate project costs were prudently incurred."

Witness Franke addressed the efforts that PEF took to minimize CR3 Uprate costs incurred in 2011, which resulted in the avoidance or deferral of costs to a later period of time. Witness Franke testified:

PEF was able to reallocate project management resources and reduce project management expenditures for the CR3 Uprate project by \$4.7 million in 2011. PEF's 2011 Power Block Engineering, Procurement, and related construction costs were further reduced by \$34.2 million.

FIPUG, OPC and FRF encouraged this Commission to defer its decision concerning the prudence of 2011 CR3 Uprate project costs until after PEF has made a decision on whether to repair or retire the CR3 unit. Alternatively, these intervenors argue that only CR3 Uprate expenditures that could not have been deferred, delayed, or avoided should be determined prudent and all others found imprudent because PEF has not yet determined whether to repair or retire CR3.

In addition to the intervenors' positions concerning prudence of incurred costs, PCS Phosphate argued that PEF cannot satisfy its burden of proof concerning prudence due to the absence of a reviewed 2011 feasibility analysis of completing the CR3 Uprate project as required by Rule 25-6.0423(5)(c)5, F.A.C.

PEF argued that the long-term feasibility of completing the power plant uprate has nothing to do with the historical decisions that led to incurring actual costs on the project in 2011. PEF further argued that nowhere in the rule is the determination of prudence of actual prior year costs dependent on the determination of the feasibility of completing the power plant, nor could it logically be. PEF asserted that the “long-term feasibility of completing a power plant project includes cost projections, and other forecasts in the analysis. By definition, estimates, projections, and forecasts do not involve actual, historical costs. As a result, the feasibility of the CR3 Uprate project on a going forward basis has nothing to do with consideration of the prudence of past project cost.”

According to PCS Phosphate, the only way for PEF to satisfy its burden of proof is for this Commission to make a feasibility finding. PCS Phosphate argues that absent the feasibility finding, PEF cannot satisfy its burden of proof, and we have no basis to conclude that PEF’s 2011 expenditures were prudent.

PCS Phosphate referred to Order No. PSC-11-0095-FOF-EI, issued in Docket No. 100009-EI, in which we note that the burden is on “the utility [to] prove that its costs in new nuclear power plant capacity were prudently incurred.” PCS Phosphate asserted that pursuant to Rule 25-6.0423(5)(c)2, F.A.C., this Commission must conduct a hearing each year and determine the prudence of actual construction expenditures by the utility. According to PCS Phosphate, the utility must submit a detailed analysis of the long-term feasibility of completing the power plant as part of the annual review. Rule 25-6.0423(5)(c)5, F.A.C. PCS Phosphate cited to our Order in PEF’s need determination of the Levy nuclear plants as the purpose for this Commission’s review of the project’s feasibility which is to provide “the appropriate checks and balances to ensure that the construction of the nuclear units continues to be in the best interest of PEF’s ratepayers.” (Order No. PSC-08-0518-FOF-EI)

PCS Phosphate asserted that witness Franke testified that for PEF’s ratepayers to receive any value from the CR3 Uprate project, PEF must return the CR3 Unit back to service. PCS Phosphate argued that at this time, PEF is unable to establish that CR3 will ever produce energy again and that this uncertainty persisted throughout most of 2011, following the March 2011 delamination event.

PCS Phosphate contended that PEF cannot demonstrate that the power uprate investment is feasible. PCS Phosphate argued that by seeking recovery for 2011 costs, PEF asked this Commission to find that PEF was prudent to presume the containment repairs would be made by the end of 2014 (the identified CR3 repair plan began in 2011). PCS Phosphate stated that there was, and remains, no tangible support for that presumption that containment repairs would be made by the end of 2014. In support of its statement, PCS Phosphate noted the August 15, 2012 Wall Street Journal article they offered as an exhibit at hearing. PCS Phosphate asserted that as of October 1, 2012, PEF/Duke Energy management still had not made the decision to repair or retire the CR3 Unit.

In conclusion, PCS Phosphate asserted that the 2011 delamination events changed the scope required of a feasibility analysis. PCS Phosphate stated PEF filed deferral motions concerning our review of the feasibility analyses for both 2011 and 2012. Because of the 2011

motion, PCS Phosphate asserted the feasibility analysis of the CR3 Uprate project is not before this Commission and cannot serve as a basis for us to find the 2011 expenditures were prudently incurred.

We find that PCS Phosphate, and other intervenors, do not properly apply the prudence standard employed by this Commission to the facts that PEF knew or should have known in 2011, when decisions to continue expenditures on the project were made. PCS Phosphate's brief is replete with information that PEF could not have known during 2011 but now know in 2012. PCS Phosphate refers to facts within their arguments as they are known now, not as they were known in 2011. We note, however, that PCS Phosphate did accurately reflect that during March 2011, after the second "delamination event," uncertainty concerning the future of the Uprate project soon changed.

Based on a review of the record and argument derived from the briefs offered by intervenors in this docket, no evidence was identified that directly challenged the prudence of any specific costs that PEF incurred in 2011 on the CR3 Uprate project. The record evidence only supports a conclusion that PEF appropriately downscaled project activities and resulting costs in 2011 while PEF re-evaluated the containment building repair activities for the CR3 Unit. Moreover, we note that OPC witness Jacobs, and OPC in its brief, confirm and applaud PEF's actions in scaling back its 2011 historical expenditures. In addition, we did not identify any evidence presented by the intervenors which showed that any specific costs or activities PEF undertook in 2011 were unneeded, avoidable, or should have been reasonably deferred until another period.

We find that PEF has demonstrated that its decisions and actions concerning the CR3 Uprate project were reasonable in light of the uncertainties known to management in 2011 that were affecting the project. Therefore, the costs incurred due to PEF's decisions and actions during 2011 shall be deemed prudent even in the absence of a final decision to repair or retire Crystal River Unit 3.

### XIII. Prudently Incurred 2011 Costs and True-Up Amounts for the Crystal River Unit 3 Uprate Project

We note that this section is similar to that argued in section XI, but has as its focus the prudence of costs incurred for the CR3 Uprate project in 2011, as compared to the prudence of management decisions made by PEF for the Uprate project during 2011.

PEF witness Garrett provided testimony concerning PEF's final actual costs and expenditures made for the CR3 Uprate project in 2011. Witness Garrett stated that the data supporting the information was taken from PEF's books and records that are kept in accordance with generally accepted accounting principles and practices, provisions of the Uniform System of Accounts, and other accounting rules and orders as established by this Commission.

Witness Garrett identified the 2011 CR3 Uprate project costs PEF believes were prudently incurred. These amounts include: capital costs \$49,049,270 (\$43,648,799

jurisdictional, net of joint owners), O&M costs \$498,775 (\$461,200 jurisdictional, net of joint owners), carrying costs \$16,127,875, and a base revenue requirement credit of \$3,346,641.

PEF witness Franke also provided testimony concerning PEF's actual costs incurred during 2011 for the CR3 Uprate project. Witness Franke stated that PEF reasonably and prudently incurred the 2011 CR3 Uprate project costs which were necessary for the continuation of work for the EPU phase, and that PEF's 2011 CR3 Uprate project costs were reasonably and prudently incurred.

The final 2011 CR3 Uprate project costs were compared to prior Commission-approved recovery amounts to determine the net final true-up amount for 2011 as a \$3,498,125 under recovery. Witness Garrett stated that this amount should be approved as reasonable and prudent since it was calculated in accordance with Rule 25-6.0423, F.A.C.

The requested final CR3 Uprate project 2011 true-up is the summation of the following components: \$461,276 under projection of O&M costs, a \$3,207,094 under projection of carrying costs, and a \$170,245 over-projection of other adjustments.

Commission staff accounting audit witness Small provided testimony and sponsored the 2012 accounting audit report of 2011 CR3 Uprate project costs. As noted in this testimony, the Commission staff's audit activities included reconciliation and verification of 2011 project costs to the general ledger, monthly accrual balances and the Company's filing in the 2012 NCRC Docket. As noted from his testimony, witness Small responded to a question of whether there were any audit findings concerning the CR3 Uprate project:

Yes, Audit Finding No. 1 provides information on legal costs included as recoverable O&M expenditures on Schedule T-4 of the filing that the Company states will be removed by posting a journal adjustment in April 2012 that will reduce next years Schedule T-4 filing by \$12,683 (\$11,716 jurisdictional).

We note that witness Small identified no other findings in his audit report concerning CR3 Uprate project costs in 2011.

Commission staff audit witnesses Coston and Hallenstein reviewed PEF's project management, accounting, and related controls in their 2012 audit report on the Crystal River Unit 3 Uprate and the Levy Nuclear projects.

Our review of witnesses Coston and Hallenstein's report and testimony revealed no recommendations or identified issues concerning CR3 Uprate project management or project controls. Witnesses Coston and Hallenstein confirmed this by stating during the summary of their testimony that they: "had no specific recommendations concerning the company's project management internal controls employed by both projects for the current period."

Witness Franke presented testimony concerning PEF's management and project based actions concerning the CR3 Uprate project during 2011. These actions are the basis for costs that were incurred during 2011. In addition to his testimony, witness Franke was also cross-

examined in detail by the intervenors concerning PEF's management decisions, actions, and whether any costs associated with contracts for the CR3 Uprate project during 2011 could have been avoided or deferred.

PEF argued in its brief:

As explained by Mr. Franke, subsequent to the March 2011 delamination, PEF evaluated the CR3 Uprate project work and determined that the reasonable course of action was to take steps to preserve the Company's ability to complete the CR3 Uprate in the current CR3 outage, without unnecessarily incurring costs for the project in 2011, while assessments regarding the potential repair off the CR3 containment building continued. PEF prudently minimized CR3 Uprate costs in 2011 to ensure that only those costs necessary to continue with the CR3 Uprate project if CR3 was repaired were incurred until a final decision to repair CR3 is made.

PEF further asserted that "Dr. Jacobs [the only intervenor witness to address CR3 issues] did not testify that any historical, 2011 CR3 Uprate costs was unnecessary for the project or otherwise imprudently incurred. The evidence, then, is undisputed that PEF's 2011 CR3 Uprate project costs were prudently incurred."

The position of the intervenors that we should defer all prudence and reasonableness determinations and cost recovery until it knows whether Crystal River Unit 3 will be repaired or retired was addressed in section XI of this Order. We find, once again, that there is sufficient evidence in the record to allow a thorough review of the decisions PEF's managers made during 2011, thereby allowing us to make a determination concerning the prudence of 2011 CR3 Uprate project activities and costs.

Alternatively, the intervenors argued that if this Commission decides not to defer the determination of prudence on 2011 expenditures, then the portion, if any, of EPU expenditures that could have been deferred, delayed, or avoided, but were not, should be reduced from the system and jurisdictional amount being requested. As previously stated we find that PEF demonstrated its decisions and actions concerning the CR3 Uprate project were reasonable in light of the uncertainties affecting the project that were known to management in 2011, and no evidence was identified by the intervenors that any specific CR3 Uprate project cost or activity incurred or undertaken in 2011 by PEF was shown to be unneeded, avoidable, or could have been reasonably deferred.

Consistent with our findings in sections XI and XII of this Order concerning the verification of PEF's calculations and true-up amounts, and a preponderance of the evidence in the record, we find that PEF's information was subjected to a reasonable level of review sufficient to determine the prudence of its 2011 CR3 Uprate project costs and true-up amounts. We find that PEF has demonstrated that the 2011 CR3 Uprate project costs, activities and final true-up as requested are reasonable and prudent.

Therefore we approve the following amounts as prudently incurred 2011 CR3 Uprate project costs: capital costs \$49,049,270 (\$43,648,799 jurisdictional, net of joint owners), O&M costs \$498,775 (\$461,200 jurisdictional, net of joint owners), carrying costs \$16,127,875 and a base revenue requirement credit of \$3,346,641. The resulting final 2011 true-up amount of \$3,498,125 shall be used in determining the 2013 Nuclear Cost Recovery Clause recovery amount.

XIV. Reasonableness of Estimated 2012 Costs and True-Up Amount for the Crystal River Unit 3 Uprate project

We note that the information presented in this section is based on data contained in the revised filing offered by PEF on September 7, 2012. This revision was offered to reflect adjustments to PEF's original request and filing pursuant to our approval of the Motion to Defer on September 5, 2012 where the parties requested and we agreed to defer our review of estimated 2012 and projected 2013 new capital expenditures and associated costs for the CR3 Uprate project.

PEF witness Foster provided support for the activities and method of calculations used to determine the requested 2012 revised recovery amounts. Witness Foster offered revised testimony, covering the same subject matter as his original testimony but incorporating the requirements of the approved Motion to Defer.

Witness Foster identified the revised 2012 estimated CR3 Uprate project costs PEF believes were reasonably incurred or estimated. Witness Foster stated the amounts shown are consistent with the requirements of the Motion to Defer. These costs include: capital costs of \$0 (\$0 jurisdictional, net of joint owners), O&M expenses of \$0 (\$130 jurisdictional, net of joint owners), carrying costs of \$19,041,421, and a base revenue requirement credit of \$3,242,310. The requested carrying cost amount was calculated by applying the statutory carrying charge to the average balance of unrecovered capital expenditures that were incurred prior to 2012.

Witness Foster presented PEF's revised 2012 true-up amount for the CR3 Uprate project for which PEF is requesting recovery. PEF requested that this Commission find as reasonable, an estimated 2012 true-up amount for the CR3 Uprate project in the amount of \$6,186,144 under recovery. This amount is comprised of: O&M under projection of \$840, an under projection of carrying charges of \$6,165,675, plus an over projection of other adjustments of \$19,629.

In reviewing the positions of the parties, we note that none of the specific 2012 costs that PEF requested recovery of were identified by anyone as unreasonable. The parties' positions are restatements or carryover positions as discussed in Sections XI, XII and XIII, and focused on the collectability of recovery in 2013 as compared to the reasonableness of any amount that is being requested to be recovered for 2012.

Based on the preponderance of evidence in the record, we find that PEF has demonstrated the reasonableness of its revised estimated 2012 CR3 Uprate project true-up recovery amounts. Therefore we find, as reasonable, the revised 2012 true-up of CR3 Uprate project recoverable

costs in the amount of \$6,186,144. This amount shall be used in determining the 2013 Nuclear Cost Recovery Clause recovery amount.

XV. Reasonableness of Projected Estimated 2013 Costs for the Crystal River Unit 3 Uprate Project

We note that the information presented in this section is based on data contained in the revised filing offered by PEF on September 7, 2012. This revision was offered to reflect adjustments to PEF's original request and filing pursuant to our approval of the Motion to Defer on September 5, 2012 where the parties requested and we agreed to defer our review of estimated 2012 and projected 2013 new capital expenditures and associated costs for the CR3 Uprate project.

PEF witness Foster provided support for the activities and method of calculations used to determine the requested 2013 revised recovery amounts. As noted above, witness Foster offered revised testimony, covering the same subject matter as his original testimony but incorporating the requirements of the approved Motion to Defer.

Witness Foster identified the revised 2013 projected CR3 Uprate project costs PEF believes were reasonably forecasted and consistent with the requirements of the Motion to Defer. These costs include: capital costs of \$0 (\$0 jurisdictional, net of joint owners), \$0 O&M expense (\$173 jurisdictional, net of joint owners), carrying costs of \$30,352,822, and a base revenue requirement credit of \$3,587. The requested carrying costs amount was calculated by applying the statutory carrying charge to the average balance of unrecovered capital expenditures incurred prior to 2012, in addition to carrying charges on the regulatory asset (Rate Management Plan).

Witness Foster presented PEF's revised projected 2013 CR3 Uprate project costs for which they are requesting recovery. PEF is requesting that we find as reasonable, projected 2013 CR3 Uprate costs in the amount of \$30,349,407.

In reviewing the positions of the parties, we note that none of the specific 2012 costs that PEF requested recovery of were identified by anyone as unreasonable. The parties' positions are restatements or carryover positions as discussed in Sections XI, XII and XIII, and focused on the collectability of recovery in 2013 as compared to the reasonableness of any amount that is being requested to be recovered for 2013.

Based on the preponderance of evidence in the record, we find that PEF has demonstrated the reasonableness of its revised projected 2013 CR3 Uprate project true-up recovery amounts. We also find, as reasonable, the revised projected 2013 CR3 Uprate project recoverable costs in the amount of \$30,349,407. This amount shall be used in determining the 2013 Nuclear Cost Recovery Clause recovery amount.

XVI. PEF's 2013 Capacity Cost Recovery Clause Recovery

This section is essentially a wrap up or fall-out of the differing concerns expressed by the parties that are addressed in sections III through XV.

We note that for 2013, the approved Motion to Defer and Settlement Agreement affects and governs to some extent the scope, type, and amount of costs PEF's can be authorized to recover through the capacity cost recovery clause in 2013.

As noted previously in this Order, the Motion to Defer limits what costs PEF can include in its requested 2013 cost recovery amount for the CR3 Uprate project. The Settlement Agreement also contains two main conditions which affect 2013 Levy project cost recovery. Those conditions are: a method of calculation and limitation concerning the level of revenue that can be collected each year for the Levy project, and a requirement to true-up actual collected revenues from the capacity cost recovery clause to prudently incurred project costs at the conclusion of the agreement period.

Given the requirements/conditions of the Settlement Agreement and the Motion to Defer, we will address the following two questions:

- What is the appropriate level of CR3 Uprate project cost recovery that shall be included in the 2013 Capacity Cost Recovery Clause factor?
- What estimated level of Levy project cost recovery shall be established for 2013 for the limited use of next year's project cost true-up?

#### CR3 Uprate Project Cost 2013 Recovery Level

Pursuant to the approved Motion to Defer, PEF modified its 2013 requested cost recovery for the CR3 Uprate project to include only new expenditures and costs incurred in 2011, and recovery of costs associated with capital expenditures that were found to have been prudently incurred in prior dockets. PEF's modified request establishes a 2013 recovery amount of \$40,033,676 for the CR3 Uprate project, which has been requested to be included for collection in the 2013 Capacity Cost Recovery Clause factor.

The net \$40,033,676 amount represents current balances of statutory carrying charges that have accrued on CR3 Uprate costs prudently incurred prior to 2012 and reflects \$0 for new capital expenditures in 2012 and 2013. As stated by witness Foster, the requested recovery amount includes the Motion to Defer's required treatment of new 2012 and 2013 CR3 Uprate capital expenditures and is made up of the following amounts: a 2011 final true-up of \$3,498,125, a 2012 estimated true-up of \$6,186,144, and a 2013 projected amount of \$30,349,407.

#### Levy Project 2013 Estimated Recovery Level

Since the application of the Settlement Agreement causes a temporary disconnect between the level of revenues which are authorized to be collected through the capacity cost recovery clause for the Levy project and those project costs that are incurred each year (which would normally become the amount of revenues available for recovery through the capacity cost

recovery clause), We must establish an “estimated” annual recovery amount to be used only within the NCRC project cost true-up process during each year the Settlement Agreement is in effect. The true-up process that is required under the terms of the Settlement Agreement is a different process which requires a true-up of actual revenues collected during the term of the Settlement Agreement to actual project costs incurred during this same period. This true-up process shall take place at the end of the Settlement Agreement period.

The first step in the modified process to establish an annual “estimated” recovery level for the Levy project is summing the approved project cost recovery amounts from Levy project costs in sections VIII, IX and X of this Order. This step is consistent with past NCRC process activities and results in an amount of \$14,649,316. The amount includes: a 2011 final true-up of \$12,649,655 over recovery, a 2012 estimated true-up of \$13,013,480 over recovery and a 2013 projection of \$40,312,451.

The next step in this modified process is to compare the approved direct project recovery amount (taken from prior sections of this Order) to an estimate of the revenues which may be collected when applying the fixed factors to actual sales that will occur in 2013. To estimate this revenue amount, witness Foster offered the following in his direct testimony:

PEF calculated the estimated revenue requirement by applying the rates in Exhibit 5 of the Settlement to the sales forecast shown on Exhibit TGF-2 to generate the projected revenues for 2013. As can be seen in Schedule P-8 in column 2, this amount is \$102.8 million [\$102,696,903 before expansion for taxes].

Comparing the pre-tax estimated revenue to project costs available for recovery in 2013, results in a difference or potential over recovery of \$88,047,587 [\$102,696,903 the estimated potential revenues in 2013, minus \$14,649,316 of Levy project 2013 cost recovery].

In an effort to minimize differences like the one noted above or minimize any other cost impacts on the required annual true-up process, witness Foster offered the following revenue assignment routine for our consideration:

In order to effectively track different cost categories and for ease of administration, PEF will apply the agreed upon collection amount to the various costs in the following manner:

- First to recovery of carrying costs on any regulatory assets, unamortized preconstruction costs, or construction costs balances,
- Second to any prior period over/under recovery,
- Third to O&M costs,
- Fourth to current period preconstruction investment,
- Fifth to prior period unrecovered preconstruction costs and

- Sixth to construction cost investment.

Witness Foster further stated:

To the extent there are differences, the difference will be applied to the last bucket of costs we are assigning revenue to which in this case would be the preconstruction balance from prior to 2013 (unrecovered regulatory asset balance).

In reviewing this request, we agree with PEF that it is appropriate, this year, to credit the regulatory asset for the \$88,047,587, which is the estimated difference between direct project cost recovery items and the estimated revenues that may be collected in 2013. We find this action is appropriate since the estimated unrecovered balance of the regulatory asset, at year-end 2012, will be approximately \$117 million. Reducing the uncollected balance of this regulatory asset will have the effect of lowering associated carrying costs in future years.

While we do not take issue with witness Foster's proffered revenue assignment process for purposes of estimating the 2013 capacity cost recovery amount at this time, we do not adopt this process going forward, as there are bound to be differences between the revenues collected due to the Settlement Agreement and actual project costs that are incurred in any given year. Since these differences can be either positive or negative, the use of the step-wise process offered by witness Foster may or may not be the most efficient or appropriate means to address all future situations. For the time being, we find a case-by-case review of any future assignments or allocations of revenues PEF may need to make will not impose an undue burden on the parties or the process. As such, we find the adoption of the revenue assignment routine offered by witness Foster is unnecessary.

#### Estimated Total 2013 Recovery Amount

We find that PEF has met the requirements of Rule 25-6.0423, F.A.C., and support its requested cost recovery amounts for 2013. We approve for the CR3 Uprate project a jurisdictional amount of \$40,033,676 to be included in the Capacity Cost Recovery Clause factor for collection in 2013. For the Levy project, the amount to be collected in the 2013 Capacity Cost Recovery Clause factor is the amount necessary to achieve the rates required pursuant to the Settlement Agreement approved by Order No. PSC-12-0104-FOF-EI. For future true-up purposes, we recognize \$102,696,903 as the estimated 2013 Levy project recovery amount. The amounts supported by each of the parties on prior issues identified for the hearing are shown in Table 5.

Therefore, for the CR3 Uprate project, we approve a total jurisdictional amount of \$40,033,676 to be included in the Capacity Cost Recovery Clause factor for collection in 2013. For the Levy project, the amount to be collected in the 2013 Capacity Cost Recovery Clause factor is the amount necessary to achieve the rates required pursuant to the Settlement Agreement as approved by Order No. PSC-12-0104-FOF-EI. For future true-up purposes, we recognize \$102,696,903 as the estimated 2013 Levy project Nuclear Cost Recovery Clause recovery amount.

Table 5: PEF's Net 2013 Nuclear Cost Recovery Clause Amount

	PEF	OPC, PCS Phosphate, FIPUG, FEA, FRF	SACE	Approved
<b>Levy Project</b>				
2011 Final True-up	\$ -12,649,655	\$ -12,649,655	\$ 0	\$ -12,649,655
2012 Est. True-up	-13,013,480	-13,013,480	0	-13,013,480
2013 Projections	40,312,451	40,312,451	0	40,312,451
Rate Management Adjustment	88,047,587	88,047,587	0	88,047,587
Levy Project Subtotal	\$102,696,903	\$102,696,903	\$ 0	\$102,696,903
<b>CR3 Uprate Project</b>				
2011 Final True-up	\$ 3,498,125	\$ 0	\$ 0	\$ 3,498,125
2012 Est. True-up	6,186,144	0	0	6,186,144
2013 Projections	30,349,407	0	0	30,349,407
CR3 Uprate Project Subtotal	\$ 40,033,676	\$ 0	\$ 0	\$ 40,033,676
Net NCRC Total 2013 Amount	\$142,730,579	\$102,696,903	\$ 0	\$142,730,579

### **Florida Power & Light Company**

#### **XVII. Turkey Point Units 6 and 7 Project Siting, Design, Licensing, and Construction Qualification**

We note that none of the intervenors offered witness testimony addressing FPL's Turkey Point Units 6 and 7 project activities. From its brief, SACE's discussion of FPL's project activities is directed at the question of FPL's intent to complete the project, not the prudence of any of FPL's project activities.

Section 366.93, F.S., provides for cost recovery for utilities engaged in the siting, design, licensing, and construction of nuclear power plants. By Order No. PSC-11-0095-FOF-EI, we interpreted and defined this statutory provision to include the building of new nuclear power plants and the modification of existing nuclear power plants.<sup>27</sup> As discussed in this Order, the main question for review is whether a utility must engage in the siting, design, licensing, and construction of nuclear power plant 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

<sup>27</sup> Order No. PSC-11-0095-FOF-EI, issued on February 2, 2011, in Docket No. 100009-EI, In re: Nuclear Cost Recovery Clause. See also Order No. PSC-08-0749-FOF-EI, issued on November 12, 2008, in Docket No. 080009-EI, In re: Nuclear Cost Recovery Clause; and Order No. PSC-09-0783-FOF-EI, issued on November 19, 2009, in Docket No. 090009-EI, In re: Nuclear Cost Recovery Clause.

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 arriving at our decision, we took guidance from Order No. PSC-11-0095-FOF-EI. In that order we found that a utility need not engage in the siting, design, licensing, and construction activities of a nuclear power plant simultaneously in order to meet the statutory requirements under Section 366.93, F.S. As noted in that prior order, the utility, however, must demonstrate through its actions an 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.

In support of its position, FPL witness Scroggs described the Turkey Point Units 6 and 7 project activities as primarily focused on permitting and licensing efforts as well as planning for the next phase of the project.

During 2011, the Turkey Point 6 and 7 project continued to make progress with licensing and permitting activities, and maintained costs well within the annual budget. FPL continued its disciplined pursuit of the approvals and authorizations necessary to create the opportunity to add the benefits of new nuclear generation for its customers. The project achieved key milestones in the SCA process by achieving completeness and moving on to the agency review stage. In the Nuclear Regulatory Commission licensing process, significant progress was made responding to Requests for Additional Information (RAI) and updating the Combined Operating License Application (COLA) with Revision 3. This should allow the federal review to move forward in 2012.

...

The project made measurable progress in all regulatory processes towards obtaining all necessary licenses, permits, and approvals. The three key processes include the Combined Operating License (COL) process administered by the NRC, wetland permits under the jurisdiction of the US Army Corps of Engineers (USACOE), and the SCA process, coordinated by the Florida Department of Environmental Protection (FDEP). In general, 2011 was another year of information exchange with agencies to ensure all relevant and required information necessary for agency evaluations has been provided.

...

In 2012 and 2013 the project is scheduled to continue its progress in much the same manner as it has in past years, responding to regulatory requirements as various steps in the application processes are completed. Expenses requested are primarily related to obtaining the licenses and permits, with a portion covering planning and design studies needed to support the project schedule. Delays in the regulatory review process have been accommodated allowing the projected commercial operation dates (CODs) of 2022 for Unit 6 and 2023 for Unit 7 to be maintained, however delays are possible. Recognizing that the experience to date is a likely indicator of the remainder of the licensing phase, FPL's stepwise approach continues to provide FPL customers with the best opportunity to make steady progress on the project.

In its brief, SACE asserted that FPL only demonstrated its intent to obtain the COL stating that "FPL's activities since January of 2011 plainly demonstrate that FPL intends to do nothing more than obtain a Turkey Point Units 6 and 7 COL." SACE concludes that FPL's activities simply are not indicative of a utility who intends to build two new nuclear reactors.

SACE alleged that FPL witness Scroggs characterized FPL's activities as "creating the opportunity;" and also opined that if FPL intended to build these units, and place them in service in 2022 and 2023, FPL would have expended far more funds to effectuate this intent.

SACE argued in its brief that FPL's activities plainly demonstrate that FPL continued to employ an "option creation" approach, where FPL's only intent is to preserve the option to construct by obtaining the necessary licenses and approvals to operate new nuclear projects. SACE concluded "[t]his options creation approach does not satisfy the intent to build requirement, as the statute, and this Commission's interpretation of the same doesn't contemplate such an approach."

SACE asserted that because FPL failed to demonstrate the requisite intent to construct these proposed new nuclear projects, SACE concluded that FPL failed to demonstrate that the costs for which it requested recovery were reasonable and prudently incurred.

Reviewing the record, we find that FPL's actions since 2011 support the requirement of demonstrating its intent to build. We note that even if FPL's "intent" was to terminate the project, Section 366.93(6), F.S., allows for recovery of all prudent preconstruction and construction costs in the event the utility elects not to complete or is precluded from completing the construction of the nuclear power plant.

Turning to SACE's assertion that if FPL intended to complete the project, FPL would have already spent more on this project, we reviewed the record for evidence supporting SACE's argument but found none. SACE's brief did not identify any transcript reference, exhibit or furnish any other evidence in support of its assertion. FPL argued that the alternative management approach advocated by SACE would entail committing substantial sums of money to lock down construction plans now, despite the fact that such expenditures are unnecessary at this time to maintain the current project schedule. FPL witness Scroggs asserted FPL will continue to develop the Turkey Point Units 6 and 7 project through four phases: exploratory,

licensing, preparation, and construction. The exploration process is complete and FPL is currently focused on the licensing phase. FPL asserted that no witness or record evidence challenged this conclusion. FPL concludes that by not initiating preparation phase activities until they are absolutely necessary, FPL has minimized cost to customers. We concur.

Based on our review, we find the FPL's Turkey Point Unit 6 and 7 project activities since January 2011 are similar and consistent with those we have reviewed in prior proceedings and found to be appropriate for nuclear cost recovery.<sup>28</sup> We also find that FPL's testimony identified actions that qualify as preconstruction activities as defined in Section 366.93(1)(f), F.S., and as interpreted by Rule 25-6.0423(2)(h), F.A.C., since FPL has not entered into the actual construction phase of the project or announced termination of the project.

We find that, taken as a whole, all of the noted activities are more consistent with a demonstration of intent to build as opposed to termination of the Turkey Point Units 6 and 7 project therefore FPL's activities for the Turkey Point Units 6 and 7 project qualify as "siting, design, licensing, and construction" of a nuclear power plant as contemplated by Section 366.93, F.S.

#### XVIII. Feasibility of Completing the Turkey Point Units 6 and 7 Project

In an effort to mitigate the economic risks associated with the long lead-time and high capital costs associated with nuclear power plants, the Florida Legislature enacted Sections 366.93 and 403.519(4), F.S., during the 2006 legislative session. Section 366.93(2), F.S., requires this 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. This 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, we provided specific guidance regarding the elements 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

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<sup>28</sup> Order No. PSC-11-0547-FOF-EI, issued on November 23, 2011, in Docket No. 110009-EI, In re: Nuclear cost recovery clause; Order No. PSC-11-0095-FOF-EI, issued on February 2, 2011, in Docket No. 100009-EI, In re: Nuclear cost recovery clause; Order No. PSC-08-0749-FOF-EI, issued on November 12, 2008, in Docket No. 080009-EI, In re: Nuclear Cost Recovery Clause; and Order No. PSC-09-0783-FOF-EI, issued on November 19, 2009, in Docket No. 090009-EI, In re: Nuclear Cost Recovery Clause.

will allow us to monitor the feasibility regarding the continued construction of Turkey Point 6 and 7.<sup>29</sup>

### Required Elements

We find that FPL satisfied the requirement of Order No. PSC-08-0237-FOF-EI and Rule 25-6.0423, F.A.C., through various means.

FPL's 2012 feasibility analysis for completion of the Turkey Point 6 and 7 Project remained consistent with the methodology it used in the need determination and each subsequent NCRC proceeding. 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 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 feasibility, technical feasibility, funding feasibility, and joint ownership.

We find that the forecasts, cost estimates, and cost-effectiveness analysis are necessary filings to assess FPL's 2012 Turkey Point 6 and 7 Project feasibility analysis of completing the project. In addition, we reviewed regulatory and technical aspects of the project. These elements provide a holistic perspective for our findings regarding the acceptability of FPL's detailed long-term feasibility analysis.

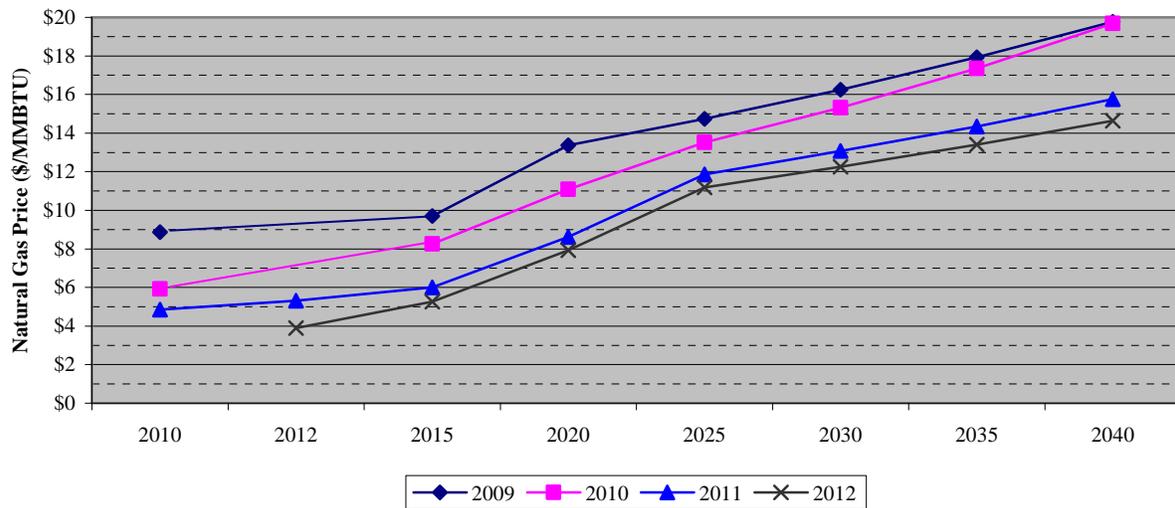
### Economic Feasibility

#### *Updated Fuel Forecast*

The updated fuel price forecasts submitted by FPL were developed from the same industry-accepted sources FPL has used since the need determination proceeding. Therefore, we find it is reasonable to accept FPL's updated fuel cost data in this proceeding. Table 6 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. We note that the increases in natural gas price forecasts are trending slightly downward each year.

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<sup>29</sup> Order No. PSC-08-0237-FOF-EI, issued April 11, 2008, in Docket No. 070650-EI, In re: Petition to determine need for Turkey Point Nuclear Units 6 and 7 electrical power plant, by Florida Power & Light Company.

**Table 6: 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 the declining natural gas costs, among other factors, in performing its feasibility analysis. SACE then discussed how FPL actually did take declining natural gas costs into account in performing its feasibility analysis. SACE noted that FPL reported a reduction in life-cycle fuel savings, acknowledged natural gas prices were at an all-time low and trending lower in the long term, and noted that the overall economic feasibility has declined. Absent in SACE's argument, however, is any evidence to suggest declining fuel prices make the Turkey Point 6 and 7 Project not cost-effective. SACE, as it did last year,<sup>30</sup> attempted to suggest the project should be abandoned and cost recovery denied, not because the project was not cost-effective, but because the project was not as cost-effective as when fuel costs were higher.

We reject SACE's contention that FPL failed to consider the decline in 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, SACE's acknowledgement that FPL has shown a decline in savings over the life of the project demonstrated that FPL has not failed to take into account the declining natural gas costs. We find it is reasonable to accept FPL's updated fuel cost data in this proceeding.

#### Updated Environmental Forecast

The updated environmental cost forecasts FPL submitted were developed from the same industry-accepted sources FPL has used since the need determination proceeding. Table 7 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.

<sup>30</sup> See Order No. Order PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket 110009-EI, In re: Nuclear Cost Recovery Clause, p.13.

**Table 7: Forecasted Environmental Compliance Costs (\$/ton, \$Nominal)**

Selected Years	Yearly Forecasted SO <sub>2</sub> Compliance Cost (\$/ton)				Yearly Forecasted NO <sub>x</sub> Compliance Cost (\$/ton)				Yearly Forecasted CO <sub>2</sub> Compliance Cost (\$/ton)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
2015	\$2,013	\$2,176	\$58	\$246	\$1,375	\$2,071	\$522	\$509	\$17	\$20	\$0	\$0
2020	\$3,164	\$3,257	\$66	\$64	\$2,162	\$3,100	\$590	\$576	\$27	\$30	\$32	\$0
2025	\$4,988	\$4,882	\$74	\$72	\$3,408	\$1,257	\$668	\$652	\$43	\$44	\$47	\$11
2030	\$4,453	\$5,319	\$84	\$82	\$1,545	\$1,085	\$756	\$737	\$67	\$67	\$68	\$21
2035	\$3,691	\$4,293	\$95	\$93	\$0	\$1,228	\$855	\$834	\$101	\$100	\$98	\$38
2040	\$2,653	\$3,278	\$108	\$105	\$0	\$1,389	\$968	\$944	\$149	\$149	\$141	\$64

We note that the price forecast for sulfur dioxide (SO<sub>2</sub>) and nitrous oxides (NO<sub>x</sub>) dropped dramatically between 2010 and 2011 but remained close to the 2011 price projection in 2012. FPL witness Sim testified in the 2011 proceeding that the 2010-2011 reductions were due to utilities, in response to Environmental Protection Agency rules, adding control devices for these emissions. This, in turn, produces more emission allowances on the market in future years, thereby reducing the value of the allowances.<sup>31</sup> This 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<sub>2</sub> that were certainly much different this year than what we saw in 2011. Number one, the CO<sub>2</sub> 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.

None of the intervenors contested the credibility or accuracy of FPL's updated environmental cost forecast. SACE, however, suggested that FPL failed to take into account that projected costs of carbon dioxide emissions "were trending negatively for new nuclear generation."

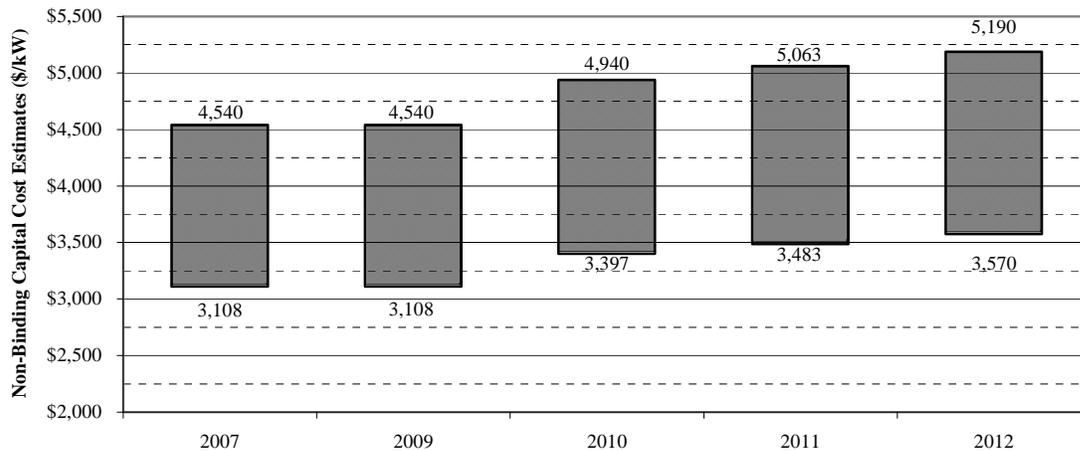
As with gas prices, we reject SACE's contention that FPL failed to consider the decline in environmental costs. FPL's feasibility (cost-effectiveness) analysis demonstrates changes in the forecasted cost of emissions were considered. We find it is reasonable to accept FPL's updated environmental cost data in this proceeding.

#### Updated Project Cost Estimate

FRF expressed doubt about the accuracy of FPL's non-binding cost estimate; however, FRF neither contested the estimate nor presented any evidence supporting the expressed doubt. Other intervenors did not contest FPL's estimated cost.

FPL's total in-service cost estimate for the Turkey Point 6 and 7 Project is in the range of \$12.8 billion to \$18.7 billion. This estimated range includes carrying costs of \$3.6 billion to \$5.3 billion and sunk costs of \$0.2 billion. Considering FPL's 2012 non-binding overnight capital cost estimate range of \$3,570/kW to \$5,190/kW, there is a 14.3 percent increase from FPL's estimated maximum cost in the 2007 need determination proceeding and a 14.9 percent increase in the minimum cost. The history of cost range estimates is shown in the table below.

<sup>31</sup> See Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket 110009-EI, In re: Nuclear Cost Recovery Clause.

**Table 8: Range of Non-Binding Overnight Capital Cost Estimates (\$/kW)**

FPL used its updated project cost estimate in conducting its cost-effectiveness analysis below. We find 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's analysis of the cost-effectiveness of the Turkey Point 6 and 7 project once again relied on the same breakeven analysis it used since the need determination. FPL compared a present value revenue stream assuming zero capital costs for the nuclear units to a traditional present value revenue stream which includes capital and system fuel costs for a combined cycle unit as a replacement for the nuclear units. The results of this analysis show the highest capital costs at which nuclear generation would still be cost-effective compared to the combined cycle alternative.

FPL performed its analysis under a wide range of scenarios which combined varying fuel 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 alternative to the Turkey Point 6 and 7 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 \$3,570/kW-\$5,190/kW to determine the likelihood of the nuclear project producing a net savings over the study period. If the breakeven values are higher than the current capital cost-estimates, then the nuclear plants would provide net savings over the life of the units compared to alternative baseload units. We find that FPL's approach in performing this analysis remains reasonable.

The results of the breakeven analysis, shown in Table 9, demonstrate that the Turkey Point 6 and 7 Project remains cost-effective compared to the alternative combined cycle unit.

The results in six of the seven scenarios show breakeven nuclear capital costs are above FPL's estimated range of costs, which demonstrates a high likelihood of cost-effectiveness. We note that the low fuel/low environmental cost scenario breakeven nuclear capital cost, \$4,202/kW, is within FPL's estimated range of costs, \$3,570/kW to \$5,190/kW. This indicates 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 (52 years).

**Table 9: 2012 Feasibility Analysis Results for the Turkey Point 6 and 7 Project**

**Total Costs, Total Cost Differentials, and Breakeven Costs for All  
Fuel and Environmental Compliance Cost Scenarios in \$2012  
(millions, CPVRR, 2011 - 2063)**

(1)	(2)	(3)	(4)	(5)	(6)
		Total Costs for Plans		Total Cost Difference	Breakeven
Fuel Cost Forecast	Environmental Compliance Cost Forecast	Plan with Turkey Point 6 & 7 Project	Plan without Turkey Point 6 & 7 Project	Plan with Turkey Point 6 & 7 Project minus Plan without Turkey Point 6 & 7 Project	Nuclear Capital Costs (\$/kw in \$2012)
-----	-----	-----	-----	-----	-----
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)	<b>4,202</b>

Note: A negative value in Column (5) indicates that the Plan with Turkey Point 6 & 7 Project is less expensive than the Plan without the Turkey Point 6 & 7 Project.

Conversely, a positive value in Column (5) indicates that the Plan with Turkey Point 6 & 7 Project is more expensive than the Plan without Turkey Point 6 & 7 Project.

We note that FPL's breakeven analysis for 2012 compared to 2011 in Table 10 demonstrate that the magnitude and range of the breakeven nuclear capital costs have declined. However, the 2012 analysis showed the project was cost-effective in the same 6 of the 7 scenarios as the 2011 analysis.

**Table 10: 2011 Feasibility Analysis Results for the Turkey Point 6 and 7 Project**

**Total Costs, Total Cost Differentials, and Breakeven Costs for All  
Fuel and Environmental Compliance Cost Scenarios in \$2011  
(millions, CPVRR, 2011 - 2063)**

(1)	(2)	(3)	(4)	(5)	(6)
				= (3) - (4)	
Fuel Cost Forecast  -----	Environmental Compliance Cost Forecast  -----	Total Costs for Plans		Total Cost Difference Plan with Turkey Point 6 & 7 Project minus Plan without Turkey Point 6 & 7 Project  -----	Breakeven Nuclear Capital Costs (\$/kw in \$2011)  -----
		Plan with Turkey Point 6 & 7 Project  -----	Plan without Turkey Point 6 & 7 Project  -----		
High Fuel Cost	Env I	201,647	216,541	(14,894)	6,911
High Fuel Cost	Env II	213,843	229,761	(15,918)	7,388
High Fuel Cost	Env III	240,894	259,588	(18,694)	8,679
Medium Fuel Cost	Env I	178,817	191,562	(12,744)	5,911
Medium Fuel Cost	Env II	190,705	204,474	(13,770)	6,389
Medium Fuel Cost	Env III	217,404	233,962	(16,558)	7,685
Low Fuel Cost	Env I	155,743	166,327	(10,584)	<b>4,907</b>

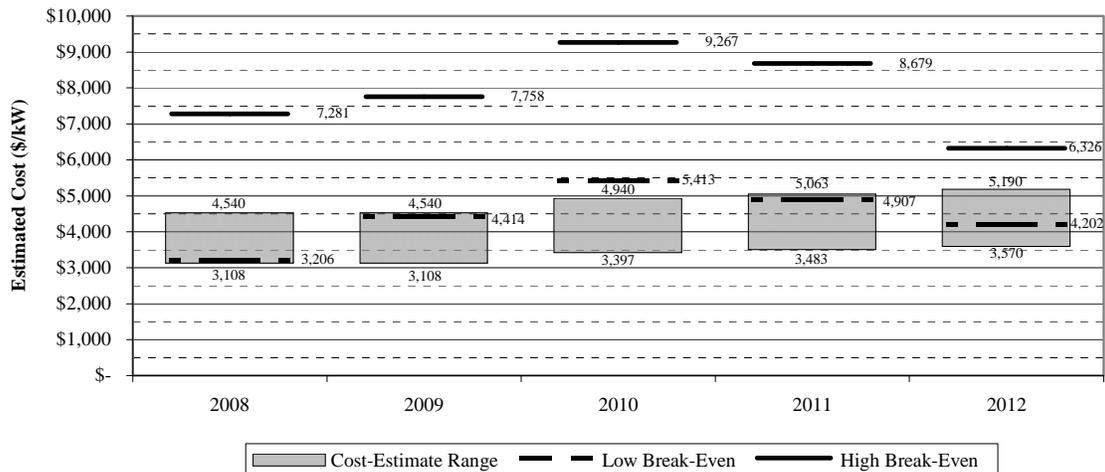
Note: A negative value in Column (5) indicates that the Plan with Turkey Point 6 & 7 Project is less expensive than the Plan without the Turkey Point 6 & 7 Project.

Conversely, a positive value in Column (5) indicates that the Plan with Turkey Point 6 & 7 Project is more expensive than the Plan without Turkey Point 6 & 7 Project.

Table 11 portrays the migration of the breakeven costs and the estimated project costs. If the estimated capital cost range increases into the range of the breakeven costs, the project becomes less cost-effective. In 2011, the upper limit of breakeven cost was 71 percent greater and the lower limit was 3 percent below the highest estimated capital costs. In 2012, the upper limit of breakeven costs was 22 percent greater and the lower limit was 19 percent below the highest estimated capital costs. This indicates that the range and magnitude of breakeven costs have decreased since 2011. The lowest 2012 breakeven cost now being within the range of the estimated costs, as mentioned above, suggests that the project may not be cost-effective if long-term fuel and environmental costs remain low. We note, however, that 2012 is not the first year the lowest breakeven cost has been within the range of estimated costs. As the table shows, the same situation was reported in the 2008 need determination, and the 2009 and 2011 NCRC orders.

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

**Table 11: 2008 – 2012 Breakeven and Estimated Capital Cost Range Comparison**



Order No. PSC-08-0237-FOF-EI, p. 23; Order No. PSC-09-0783-FOF-EI, pp. 15-16; Order No. PSC-11-0547-FOF-EI.

We find 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 Turkey Point 6 and 7 Project remains cost-effective at this time. Therefore, we accept FPL’s cost-effectiveness analysis.

Regulatory Feasibility

SACE asserted that FPL’s feasibility analysis should be rejected and cost recovery be denied because FPL failed to conduct a detailed analysis of the feasibility of completing the Turkey Point 6 and 7 Project. SACE pointed to what it describes as “one page of cursory discussion of non-economic factors affecting the feasibility of TP 6 and 7.” SACE rebuked FPL witness Scroggs for not conducting a detailed analysis of these non-economic factors, as required by rule. In addition, SACE argued that the NRC “chastised” FPL in a May 2012 letter requiring “substantial modifications” to FPL’s Combined Operating License Application. SACE argued that this “failure to provide the NRC accurate information adversely affects the feasibility of completing TP 6 and 7 . . . .”

In contrast, the record clearly shows FPL witness Scroggs testified about FPL’s continuing review of numerous regulatory issues, such as the NRC combined license schedule, the Florida Site Certification process, and negotiations for land, roadway improvements, and water supply. Witness Scroggs presented numerous pages in his prefiled testimony discussing the many activities at local, state, national, and international levels that FPL follows closely, and the intensive review process used to identify potential impacts and manage risk on the Turkey Point 6 and 7 Project. Furthermore, witness Scroggs clarified the NRC’s request for additional information in response to questions from the bench.

We are not persuaded by SACE's contention that FPL offered a cursory discussion of non-economic issues, nor of SACE's characterization of the NRC letter adversely impacting feasibility of the Turkey Point 6 and 7 Project.

We find that FPL has an effective process in place to provide its management with an ongoing, detailed analysis of the uncertainties and risks that could impact its licensing, approval, and certifications necessary for project success.

### Technical Feasibility

Closely related to regulatory issues are some technical issues with the Westinghouse AP1000 nuclear power units planned for the Turkey Point 6 and 7 Project. First is the NRC certification of the latest design change to the AP1000. This process was successfully completed with the NRC completing rulemaking for the AP1000 Design Certification in 2011.

FPL witness Scroggs testified that two nuclear construction projects using the AP1000 design in China are on schedule to begin operation in 2013 and 2015. Recently approved projects in Georgia and South Carolina are also continuing on schedule.

None of the intervenors contested any technical aspects of the project. We find the evidence supports viewing the Turkey Point 6 and 7 Project as technically feasible.

### Funding Feasibility

In addition to elements of economic feasibility, we find availability of funding for the project shall also be considered. FPL witness Scroggs testified, "Activity on other U.S. projects shows a strong interest in the investment community to participate in new nuclear financing." As an example, he discussed a successful \$2.7 billion bond solicitation by Municipal Electric Authority of Georgia for its portion of the Vogtle Units 3 and 4. None of the intervenors contested FPL's ability to obtain funding for the project.

We find that FPL's current access to capital markets confirms the continued funding feasibility of the projects.

### Joint Ownership

The 2012 proceeding included no mention of joint ownership associated with the Turkey Point 6 and 7 Project by any intervenor. In the 2011 proceeding, FPL witness Scroggs discussed the periodic meetings he had with other utilities from Florida about the status of the project and, most recently, about the events at Fukushima. Witness Scroggs explained that, because of where FPL currently is in the project, it would not be an appropriate time to enter into a joint ownership agreement.<sup>32</sup>

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<sup>32</sup> See Order No. PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket 110009-EI, In re: Nuclear Cost Recovery Clause, p. 20.

We agree with Witness Scroggs. The project is still in its early stages with uncertainties, associated risks, and pending NRC licensing. Given the current status of the project, we find that the lack of joint ownership shall not be deemed a fatal flaw to project feasibility at this time.

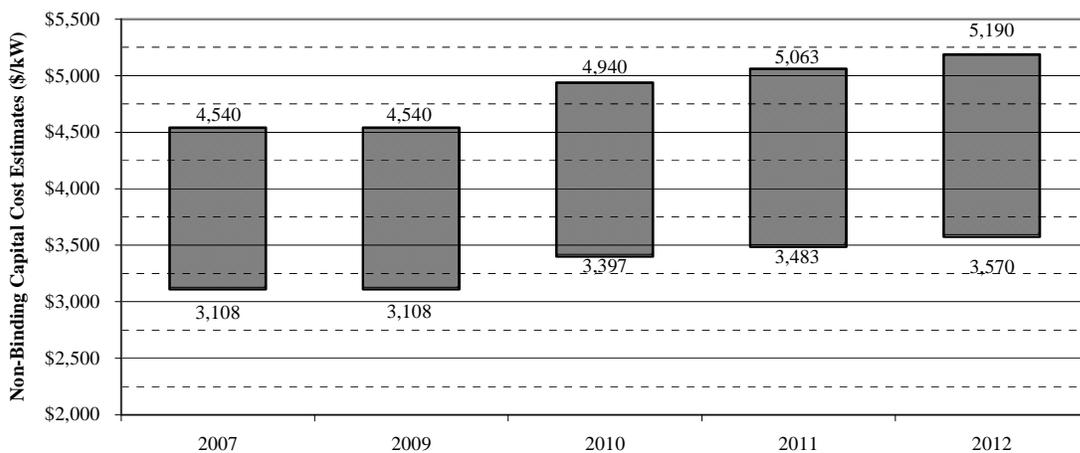
We find a preponderance of the evidence shows FPL fully considered the economic, regulatory, technical, funding, and joint ownership considerations impacting the feasibility of the project. While continuing uncertainty exists in virtually all these areas, we find that completion of the Turkey Point 6 and 7 Project remains feasible at this time.

XIX. Estimated All-Inclusive Cost of the Proposed Turkey Point Units 6 and 7 Project

FRF expressed doubt about the accuracy of FPL’s non-binding cost estimate; however, FRF neither contested the estimate nor presented any evidence supporting the expressed doubt. Other intervenors did not contest FPL’s estimated cost.

FPL’s total in-service cost estimate for the Turkey Point 6 and 7 Project is in the range of \$12.8 billion to \$18.7 billion. This estimated range includes carrying costs of \$3.6 billion to \$5.3 billion and sunk costs of \$0.2 billion. Considering FPL’s 2012 non-binding overnight capital cost estimate range of \$3,570/kW to \$5,190/kW, this represents a 14.3 percent increase from FPL’s estimated maximum cost in the 2007 need determination proceeding and a 14.9 percent increase in the minimum cost. The history of cost range estimates is shown in the table below.

**Table 12: Range of Non-Binding Overnight Capital Cost Estimates (\$/kW)**



Order No. PSC-11-0547-FOF-EI

FPL used its updated project cost estimate in conducting its cost-effectiveness analysis discussed in section XVIII. We find that 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. Therefore we accept FPL's estimated range of \$3,570/kW (\$12.8 billion) to \$5,190/kW (\$18.7 billion) as the cost of the Turkey Point 6 and 7 Project.

XX. Estimated Commercial Operation Date of the Turkey Point Units 6 and 7 Facility

FRF had concerns about the accuracy of FPL's projected in-service dates; however, FRF neither contested the estimate nor presented any evidence supporting its concern. Other intervenors did not comment on or contest FPL's estimated in-service dates.

FPL witness Scroggs testified that an October 2011 revised schedule for review of the Turkey Point 6 and 7 Project COL Application from the NRC prompted FPL to perform a complete review of the project schedule. According to witness Scroggs, "the review concluded that the current 2022/2023 commercial operation dates could be achieved,"

We note that FPL used the 2022/2023 dates in its annual feasibility analysis for 2012. We accept FPL's estimated commercial operations dates of 2022 and 2023 for Turkey Point Units 6 and 7, respectively.

XXI. Project Management, Contracting, Accounting and Cost Oversight Prudence for the Turkey Point Units 6 and 7 Project During 2011

This section addresses FPL's 2011 project management, contracting, accounting, and oversight controls for the Turkey Point Units 6 and 7 project.

We note that only SACE took issue with FPL's prudence. SACE asserted that had FPL been reasonable and prudent, FPL would not have received a May 4, 2012, letter from the NRC. A portion of that letter stated the following:

The NRC staff issued requests for additional information (RAIs) in the areas of geology, seismology, and geotechnical engineering in September and October 2011 as part of its review of Sections 2.5.1 - 2.5.5 of your combined license application (COLA) for Turkey Point Units 6 and 7. Many of the RAI responses are either unclear, incomplete, or based on conclusions that are not supported by the references provided. Further, in some cases, FPL's responses reflect a re-interpretation of the data and results of peer reviewed publications, which has resulted in dismissal of certain geologically recent deformations. Dismissal of such information could result in minimizing the potential seismic hazard in the region without providing sufficient justification. Based on the technical information provided to date, significant technical issues remain.

Before the NRC staff will restart its review in the geology, seismology, and geotechnical areas, FPL needs to revise the RAI responses and make substantial modifications to Final Safety Analysis Report (FSAR) Sections 2.5.1-2.5.5. Specific examples (but not an all inclusive list) of deficiencies are provided in Enclosure 1. The (NRC) staff also requests that FPL: 1) conduct an internal audit of its quality assurance processes and management oversight processes that were in place when FPL performed the work submitted as part of its COLA application in these areas; 2) conduct an "extent of condition" quality assurance audit of

FPL's contractor that performed this work and any other work that FPL's contractor has performed on the Turkey Point Units 6 and 7 COLA; and 3) inform NRC of its findings and any corrective actions taken in the development of its revised application materials for FSAR Sections 2.5.1-2.5.5 to mitigate the deficiencies.

FPL witness Scroggs explained that the COL application occurred in 2009 and the events of Fukushima happened in March of 2011. Following the destruction of the Fukushima Nuclear Powerplant, there was heightened interest in seismic hazards. FPL met with the NRC in May of 2011, and later in 2011 FPL received a set of requests for additional information. When witness Scroggs was questioned at the hearing as to whether the NRC's geologic and seismologic questions were due to lack of performance or a request for additional information, witness Scroggs responded:

I think it runs the range. You know, you have --it's a very highly technical and complex subject area, and you have very well-versed academics who have studied the area and they have certain opinions. So when our experts answered original questions and they didn't put a lot of weight on a certain survey or a certain piece of information, but the NRC wanted to see more information on that, maybe they would put more weight on it, that's what they're asking to provide more information. So when you see questions that, you know, not supported by the references provided in the, in the first paragraph, I think they're saying that, you know, you need to provide more information, more support for the conclusions that your experts have come to.

Regarding the audits requested by the NRC, witness Scroggs confirmed that the audits for both FPL and its contractor were complete and the NRC had been informed of the results. FPL retained witness Diaz with ND2 Group, a consulting firm, to review the reasonableness of FPL's continued pursuit of a COL for the Turkey Point 6 and 7 project. Witness Diaz opined that audits are instituted and normally established as part of the NRC's quality assurance programs. FPL witness Reed, with Concentric Energy Advisors, Inc., presented an independent review of FPL's 2011 internal project controls, processes, and procedures. FPL witness Reed commented that nothing in the NRC letter changed his views regarding FPL's 2011 project management. He continued to believe all of FPL's 2011 decisions and costs were prudent. Witness Reed commented that the matter will likely be addressed in the review of FPL's 2012 activities because the letter was dated May 4, 2012.

Commission audit staff witnesses Fisher and Rich reviewed FPL's 2011 project management controls. The review included, among other things, a summary depiction of historical, current, and future relevant key issues, such as cost estimates, permitting, construction contract, long lead time forging, and Fukushima impacts. Commission audit staff's review also noted the NRC's May 4, 2012, letter, and that the project schedule and costs impacts due to Fukushima were unknown at this time. The Commission audit staff's review did not present any findings of imprudence.

Commission staff accounting audit witness Ngo provided testimony and sponsored the 2012 accounting audit report of FPL's 2011 costs associated with the Turkey Point Units 6 and 7 project. As noted in this testimony, the Commission staff's audit activities included reconciliation and verification of 2011 costs to the general ledger and monthly accrual balances. The Commission staff audit report verified FPL's 2011 Nuclear Cost Recovery Clause filings are consistent with and in compliance with Section 366.93, F.S., and Rule 25-6.0423, F.A.C.

As previously discussed, 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.

Based on the foregoing, we find that FPL's 2011 Turkey Point Units 6 and 7 project management and accounting and related controls were subjected to a reasonable level of review sufficient to determine prudence. We find there is no record evidence identifying any FPL 2011 Turkey Point Units 6 and 7 project management or accounting decisions as unneeded or unreasonable. We also note that, at this time, neither the Commission staff nor any other party has identified any specific 2011 FPL Turkey Point Units 6 and 7 project management actions as unreasonable or imprudent.

Based on the foregoing, we find that project management, contracting, accounting and cost oversight controls employed by FPL during 2011 for the Turkey Point Units 6 and 7 project were reasonable and prudent.

#### XXII. 2011 Prudently Incurred Costs and True-Up amounts for the Turkey Point Units 6 and 7 Project

This section addresses the level of FPL's 2011 prudently incurred project costs and the final 2011 true-up amount FPL will be required either to refund or collect during 2013.

##### FPL's 2011 Turkey Point Units 6 and 7 Project Costs

FPL provided a series of schedules detailing its 2011 project costs including its calculation of its requested 2011 recovery amount. FPL witnesses Powers and Scroggs indicated that the 2011 incurred preconstruction costs for the Turkey Point Units 6 and 7 project include capital costs of \$23,150,978 (\$22,877,378 jurisdictional). The testimony and exhibits they sponsored also indicated that the carrying charges on these capital costs totaled an over-recovery of \$1,555,615. They provided a listing of FPL's 2011 preconstruction activities and associated costs. FPL provided a summary schedule comparing its actual 2011 costs to its approved estimated true-up as well as initial projection of 2011 recovery amounts. FPL requested that we review and approve FPL's 2011 amounts as prudent and recoverable. In support of its request, FPL witness Scroggs testified:

The major activities centered around supporting the additional information requested by regulatory agencies related to the federal and state applications and activities supporting installation of the Underground Injection Control (UIC) exploratory well at the project site.

FPL's year-ending 2011 incurred costs were \$14,804,558 less than its May 2011 estimate of \$37,955,536. FPL spent \$9,450,642 less in licensing costs primarily because of lower than planned NRC and NuStart fees. Project permitting costs were \$1,737,480 lower than previously estimated due to reduced staffing requirements and communications support. Engineering and design costs were \$3,616,435 lower than planned because of FPL's decision to further delay the start of the UIC exploratory well while various regulatory agencies were consulted. None of the parties identified any specific activity or cost as imprudently incurred or a result of an imprudent action.

#### FPL's 2011 Turkey Point Units 6 and 7 Project Final True-Up Amount

FPL witness Powers explained that the actual 2011 project jurisdictional costs were compared to the prior estimate of 2011 jurisdictional costs to determine the final net over recovery true-up amount for 2011 of \$15,372,530. The requested 2011 final net true-up amount includes the following items: over-estimated capital costs of \$14,629,596 and over-estimated carrying costs of \$742,934. FPL requested that these amounts be used in determining the 2013 total NCRC recovery amount. As previously discussed in this order, Commission audit staff witness Ngo audited FPL's accounting and related controls and reported no findings.

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. We note that beyond the SACE arguments discussed in Sections XVII and XXI, no other concerns were identified regarding the reasonableness or prudence of FPL's 2011 incurred costs that would support any adjustment to adjust FPL's requested amounts for the 2011 period.

Based on a preponderance of the evidence in the record, we find FPL has demonstrated the prudence of its requested 2011 incurred costs and final true-up amount for the Turkey Point Units 6 and 7 project. Therefore we approve as prudently incurred 2011 Turkey Point Units 6 and 7 project preconstruction costs of \$23,150,979 (\$22,877,378 jurisdictional). The final 2011 true-up amount, net of prior recoveries, is an over recovery of \$15,372,530 and shall be used in determining the net total 2013 Nuclear Cost Recovery Clause amount.

#### XXIII. Reasonableness of Estimated 2012 Prudently Incurred Costs and True-Up amounts for the Turkey Point Units 6 and 7 Project

This section addresses FPL's request concerning the reasonableness of its 2012 Turkey Point Units 6 and 7 project estimated costs and the estimated true-up amount for 2012.

#### FPL's 2012 Turkey Point Units 6 and 7 Project Costs

FPL witness Powers provided support for the 2012 Turkey Point Units 6 and 7 project costs and methods used to determine the requested estimated true-up recovery amount. Witnesses Powers and Scroggs co-sponsored a series of schedules detailing FPL's 2012 project costs and its calculation of its requested 2012 recovery amount.

Witnesses Powers and Scroggs identified 2012 Turkey Point Units 6 and 7 preconstruction costs of \$34,907,426 (\$34,279,877 jurisdictional). They also indicated that the estimated 2012 preconstruction carrying costs were over projected by \$2,423,506. There are no 2012 site selection costs for the Turkey Point Units 6 and 7 project as these costs have been fully recovered.

FPL witness Scroggs provided descriptions of the 2012 Turkey Point Units 6 and 7 project activities, costs, and variances. In support of FPL's request, FPL witness Scroggs stated:

FPL continues to develop Turkey Point 6 and 7 through a deliberate and careful process navigating through the four phases of project development: Exploratory, Licensing, Preparation, and Construction. The project has completed the exploratory phase, and is currently focused on the licensing phase prior to initiating Preparation phase activities. The 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.

FPL witnesses Scroggs and Powers provided the current deployment schedule for various phases of the Turkey Point Units 6 and 7 project from 2007 through 2023. During 2012, FPL has been engaged primarily in activities associated with licensing and permitting requirements. Witness Scroggs testified that FPL expects to receive a COL from the NRC for the Turkey Point Units 6 and 7 project in June 2014. Preliminary activities such as initiating contracts for construction would likely take place in early 2015, "with actual activities on site moving dirt as early as I think July or August 2014."

FPL's estimate of year-ending 2012 incurred costs was \$34,907,426. The 2012 cost estimate included amounts for licensing of \$27,805,569, permitting of \$1,463,969, and engineering and design of \$5,637,888. The estimated 2012 costs for the categories of long lead procurement advance payments, power block engineering and procurement, and transmission engineering activities were zero.

The estimated 2012 costs are \$3,514,338 greater than FPL's May 2011 projection of its 2012 costs. Licensing costs increased by \$442,677, permitting costs decreased by \$956,177, and engineering and design costs increased by \$4,027,838. FPL attributed the increase to the engineering and design activities performed in 2012 to support the permitting effort for the underground injection control well system that was delayed from 2011 and pushed into 2012.

#### FPL's 2012 Turkey Point Units 6 and 7 Project Estimated True-Up Amount

Witness Powers explained that the estimated 2012 project costs were compared to the prior projection of 2012 costs to determine the estimated true-up amount for 2012 of \$734,498. The requested 2012 true-up amount includes the following items: under-projected preconstruction costs of \$3,257,796 and a \$2,523,298 over-projection of preconstruction carrying costs. No additional site selection costs will be incurred in the future and there is no related true-up of 2012 site selection costs to be included in the net total Nuclear Cost Recovery Clause amount.

These 2012 estimated true-up amounts were included in FPL's net total Nuclear Cost Recovery Clause request of \$151,491,402.

Based on Commission staff's verification of FPL's calculations and true-up amounts, and a preponderance of the evidence in the record, we find FPL has demonstrated the reasonableness of its requested estimate of 2012 incurred costs and true-up amounts for the Turkey Point Units 6 and 7 project. Therefore we approve as reasonable estimated 2012 Turkey Point Units 6 and 7 project capital costs of \$34,907,426 (\$34,279,877 jurisdictional). The estimated 2012 true-up amount of \$734,498, net of prior recoveries, shall be used in determining the total net 2013 Nuclear Cost Recovery Clause amount.

#### XXIV. Reasonableness of Projected 2013 Costs for FPL's Turkey Point Units 6 and 7 Project

This section addresses FPL's request concerning the reasonableness of its projected 2013 Turkey Point Units 6 and 7 project costs and recovery amount.

##### FPL's 2013 Turkey Point Units 6 and 7 Project Costs

FPL witness Powers provided support for the 2013 Turkey Point Units 6 and 7 project costs and methods used to determine the requested recovery amount. FPL witness Scroggs provided descriptions of the 2013 Turkey Point Units 6 and 7 project activities and costs. Witnesses Powers and Scroggs co-sponsored a series of schedules detailing FPL's 2013 project costs and its calculation of its requested 2013 recovery.

Witness Powers identified the 2013 Turkey Point Units 6 and 7 preconstruction capital costs of \$29,211,385 (\$28,686,236 jurisdictional). Witness Powers also indicated that the projected 2013 preconstruction carrying costs were \$6,127,036. Witness Powers identified additional carrying costs on site selection costs of \$180,833 due to tax effects on FPL's previously recovered site selection costs. In support of FPL's request, FPL witness Scroggs stated:

Procurement activities in 2012 and 2013 continue to focus on the licensing and permitting process. Professional services are required from technical and environmental consultants, legal service firms, and subject matter experts to respond to the inquiries of intervenors and the reviewing agencies during the application review process or subsequent hearings. Additionally, some planning studies and early site preparation design activities are scheduled for 2013.

Witness Scroggs described FPL's focus as remaining on obtaining the license, permits, and approvals necessary to construct and operate the Turkey Point Units 6 and 7 project. Additionally, witness Scroggs explained that the land use and site certification hearings have been consolidated into a single hearing by the Department of Environmental Protection and the administrative law judge which is scheduled to take place in July 2013.

FPL's projected 2013 costs total \$29,211,385. The 2013 costs projection included amounts for licensing of \$26,743,630, permitting of \$1,231,506, and engineering and design of \$1,236,250. The following cost categories had 2013 cost projections of zero: long-lead procurement; power block engineering and procurement; and transmission engineering. No party identified any amount of FPL's 2013 Turkey Point Units 6 and 7 project cost estimates as unreasonable or unnecessary to complete the project.

#### FPL's 2013 Turkey Point Units 6 and 7 Project Recovery Amount

FPL's requested Nuclear Cost Recovery Clause amount for 2013 project costs was \$34,994,155. This amount includes the following items that have been previously discussed in this section: pre-construction capital costs in the amount of \$28,686,236, associated carrying charges of \$6,127,036, and \$180,833 in carrying charges on prior years' unrecovered site selection costs. FPL included these 2013 amounts in its total net NCRC recovery request of \$151,491,402.

Based on Commission staff's verification of FPL's calculations, and a preponderance of the evidence in the record, we find FPL has demonstrated the reasonableness of its requested projection of 2013 incurred costs and recovery amounts for the Turkey Point Units 6 and 7 project. Therefore we approve as reasonably projected 2013 Turkey Point Units 6 and 7 preconstruction costs of \$29,211,385 (\$28,686,236 jurisdictional). The projected 2013 amount of \$34,994,155 shall be used in determining the net Nuclear Cost Recovery Clause amount.

#### XXV. Feasibility of FPL's EPU Project

##### FPL's 2012 Feasibility Analysis

As previously mentioned, FPL's EPU project consists of two uprates at the Company's St. Lucie site and two uprates at the Company's Turkey Point site. Table 13 below, provides a summary of the EPU project. At the time of the hearing (September 11, 2012), uprates at St. Lucie Unit 1 and Turkey Point Unit 3 were complete.

**Table 13: Summary of EPU Project**

Unit	Capacity Increase (MW)	In-Service Date
St. Lucie Unit 1	129	Jul-12
St. Lucie Unit 2	115	Nov-12
Turkey Point Unit 3	123	Aug-12
Turkey Point Unit 4	123	Mar-13
<b>Total</b>	<b>490</b>	

FPL's basic analytical approach for evaluating the feasibility of its EPU project has remain unchanged since the 2007 Determination of Need filing. This approach compares the cumulative present value of revenue requirements (CPVRR) of a resource plan that includes the EPU project versus a resource plan that excludes the EPU project and adds instead additional

natural gas fired capacity.<sup>33</sup> No parties disputed FPL's methodology for evaluating the FPL EPU project.

As with prior feasibility analyses, FPL examined multiple potential future scenarios that result from combining various fossil fuel price forecasts (High, Medium, and Low) and environmental compliance cost forecasts. In regard to the environmental compliance cost forecasts, FPL used three forecasts in its 2012 resource planning work: Env I (representing low CO<sub>2</sub> compliance costs), Env II (representing medium CO<sub>2</sub> compliance costs), and Env III (representing high CO<sub>2</sub> compliance costs). Commission Order No. PSC-08-0237-FOF-EI states, "if environmental compliance costs are higher, gas prices will go up." Consistent with prior feasibility analyses, FPL excluded a low fuel scenario which included medium or high CO<sub>2</sub> compliance costs. FPL's 2012 feasibility analysis of the EPU project included the same updated forecasts for fuel costs and environmental compliance costs as those used in FPL's evaluation of its Turkey Point 6 and 7 project.

The results of FPL's analysis, summarized in Table 14 indicated that a resource plan with the EPU project is projected to be cost-effective in six of seven potential future scenarios. No party contested the results of FPL's analysis.

**Table 14: CPVRR Analysis Results - Estimated NPV of Total Savings from EPU Project (millions)**

		2011	2012
High Fuel Cost	Env I	\$966	\$619
	Env II	\$1,139	\$671
	Env III	\$1,508	\$760
Medium Fuel Cost	Env I	\$559	\$243
	Env II	\$736	\$296
	Env III	\$1,098	\$381
Low Fuel Cost	Env I	\$155	\$(82)

As illustrated in Table 14, the cost-effectiveness of the EPU project has declined since 2011. FPL witness Sim testified that the projected cost of natural gas and the projected cost of carbon are two key drivers in the feasibility analysis of FPL's EPU project. Witness Sim testified that the FPL EPU project will reduce natural gas consumption by 41 million MMBtu in its first full year (2014) of operation, thus reducing FPL's reliance on natural gas by approximately 3 percent in that same year. Witness Sim further testified that the FPL EPU project is projected to reduce carbon dioxide emissions by approximately 32 million tons over the life of the project. Therefore, scenarios which include higher fuel costs or higher environmental costs result in greater savings for the FPL EPU project. The updated fuel and environmental costs used in FPL's 2012 feasibility analysis are significantly lower than previous forecasts, thus reducing the projected benefits associated with the FPL EPU project.

FPL provided updated assumptions that primarily impact the feasibility of the FPL EPU project including the total capacity of the project. The projected total incremental capacity increase from the FPL EPU project has increased from the 450 MW used in the 2011 feasibility

<sup>33</sup> The resource plan that excluded the EPU project includes 31 MW of uprated capacity at St. Lucie Unit 2 that has already been achieved.

analysis to 490 MW. FPL witness Powers testified that calculations performed in 2011 support FPL's current estimate of about 490 MW. The increased MW capacity results in additional fuel savings from the project, thus increasing the cost-effectiveness of the project.

For its 2012 feasibility analysis, FPL used a non-binding cost estimate of \$3.05 billion. When compared to FPL's 2011 estimate, FPL's 2012 non-binding capital cost estimate of the FPL EPU project has increased approximately \$0.57 billion. Witness Jones testified that detailed construction planning disclosed the need for much more extensive construction efforts than had been previously estimated. Witness Jones explained that the additional implementation efforts require additional man-hours for engineering, construction, and project support, causing the cost estimate to increase.

FPL's 2012 feasibility analysis excluded approximately \$1.46 billion of sunk costs (costs that have been spent through December 31, 2011) resulting in a "going forward" capital cost projection for completing the FPL EPU project of approximately \$1.59 billion (\$3.05 billion - \$1.46 billion = \$1.59 billion). FPL's approach to sunk costs follows the guidance provided by this Commission. Order No. PSC-11-0547-FOF-EI, states "the long-term feasibility is primarily meant to analyze the "going forward" costs of the EPU project." No parties argued with FPL's updated FPL EPU project capital costs.

FPL's updated assumptions that primarily impact the feasibility of the EPU project are summarized in Table 15. We find the described assumptions are reasonable for the purposes of evaluating the feasibility of the FPL EPU project. Furthermore, no party disputed the discussed assumptions. For comparison purposes, Table 15 also summarizes the same information from FPL's 2011 feasibility analysis.

Table 15: Summary of EPU Project Assumptions

Category	Unit	2011	2012
Nuclear Uprates Incremental Capacity	(MW)	450	490
Total Capital Cost of Uprates Assumed in Analysis	(\$ billions, approx)	2.48	3.05
"Sunk Costs" Now Excluded	(\$ billions, approx)	0.70	1.46
"Going Forward" Capital Costs Included in Analysis	(\$ billions, approx)	1.78	1.59

Subsequent to FPL's filing of its feasibility analysis, FPL witness Jones testified that the FPL EPU project is likely to add approximately 522-532 MW. The more than 30 MW projected increase is based on the performance of the St. Lucie uprate which was completed on July 25, 2012. The described uprate work increased the capacity of St. Lucie Unit 1 to approximately 144 MW which is approximately 12 percent more megawatts than FPL's early 2012 estimate of approximately 129 MW. If the discussed increased capacity (144 MW) had been included in FPL's feasibility analysis, it is reasonable to assume greater savings over the life of the project.

Based on the foregoing, we find that completion of the project is in the best interest of the ratepayers. As demonstrated by the economic analysis of the FPL EPU project, there is a high likelihood of FPL's ratepayers realizing net benefits from completion of the FPL EPU project. No party argued that FPL should not complete the FPL EPU project.

The Need for Separate Economic Analysis by Site

In the 2011 NCRC proceedings, we addressed the question of whether there was a need for a separate economic analysis by plant when examining the EPU project. In that proceeding, OPC argued that “the project should be broken up into two separate analyses due to the higher estimated capital costs of the Turkey Point plant portion of the uprate project . . . .”<sup>34</sup>

In that same proceeding, several FPL witnesses suggested that requiring separate feasibility analyses by plant site would be difficult. FPL witness Sim noted that, “while separate contracts were acquired for the plant sites, contracts were negotiated based on an uprate of all four nuclear units, and therefore they could not be used to determine costs for a single site without somehow excluding this benefit.”<sup>35</sup> Commission Order No. PSC-11-0547-FOF-EI, states the following:

We [this Commission] agree with FPL that a separate economic analysis for each of the EPU project plant[s] is unnecessary, and would be difficult to calculate. While a mathematical average of the benefits derived from lessons learned and equipment bulk orders can be developed, it is not known if these would have materialized if only one plant was upgraded. Therefore, completing separate analyses would incorrectly attribute to the individual plants the benefits gained from performing uprates at both plants simultaneously.<sup>36</sup>

In the instant docket, OPC witness Jacobs testified that the increase in the capital cost of the EPU project is being driven by increasing costs at the Turkey Point plant site. Witness Jacobs argued that the increase in the estimated construction cost of the Turkey Point Uprate represents a change in circumstances that compels a separate analysis of the Turkey Point Uprate project.

As stated in the Order, “completing separate analyses would incorrectly attribute to the individual plants the benefits gained from performing uprates at both plants simultaneously.” No testimony in the record identifies what costs would have been incurred if an uprate at only one plant site had been pursued. Additionally, no evidence in the record demonstrates that FPL’s current EPU project estimate reasonably reflects costs that would have been incurred if an uprate at only one plant site had been pursued. This point is important because FPL’s estimates served as the basis for OPC witness Smith’s analysis and assumptions. Therefore, we find the testimony and analysis put forth by OPC is not sufficient to compel a deviation from our prior decision.

Finally, we note that OPC argues in its brief that, “At this advanced stage of the project, OPC believes FPL should complete the project.” Consequently, the additional analysis does not have any bearing on whether the FPL EPU project should be completed.

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<sup>34</sup> See Order No PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket No. 110009-EI, In re: Nuclear Cost Recovery Clause, p.40

<sup>35</sup> Id.

<sup>36</sup> See Order No PSC-11-0547-FOF-EI, issued November 23, 2011, in Docket No. 110009-EI, In re: Nuclear Cost Recovery Clause, p.40

The results of FPL's analysis demonstrate that completion of the FPL EPU project remains in the best interest of FPL's customers. Therefore, we approve FPL's 2012 annual detailed analysis of the long-term feasibility of completing the FPL EPU project.

XXVI. 2011 Project Management, Contracting, Accounting and Cost Oversight Prudence for FPL's EPU Project

This section addresses FPL's 2011 project management, contracting, accounting, and oversight controls for the FPL EPU project.

Summary of FPL's EPU Management Activities

FPL witness Jones, FPL's Vice President of Nuclear Power Uprates, explained that the FPL EPU project continued to be implemented in four overlapping phases in order to complete the project as soon as practical.

- The engineering analysis phase develops and supports the NRC license applications and reviews which necessarily identifies and confirms the major modifications and project scope. All necessary NRC applications were filed in or before 2011.
- The long lead equipment procurement phase establishes the purchase specifications, issues proposals, reviews vendor quotes, and awards contracts. The majority of this activity was completed in 2011.
- The engineering design modification phase develops detailed modification packages that include calculations, construction drawings, additional equipment and materials procurement, installation and testing guidelines. The engineering design modification packages for the three outages in 2011 were completed and progress was made on the packages required for the three outages scheduled for 2012.
- The implementation phase is a two step process: planning and scheduling. The implementation planning process focuses on the development of the detailed work orders for the actual facility modifications. The implementation scheduling process integrates the logistics and detailed work orders and includes the performance of the work, testing, return to normal operations, and project closeout. The implementation phase continued throughout 2011.

FPL witness Jones opined that the NRC's licensing review required additional FPL engineering and review time. He believed the 2011 earthquake and tsunami in Japan and the 2011 earthquake in Virginia adversely impacted the NRC's staff resources and delayed review and approval of FPL's applications. These events contributed to FPL's decision to delay a St. Lucie Unit 1 outage and to review the timing of a planned 2012 outage of Turkey Point Unit 3. Witness Jones asserted that these were the primary drivers of FPL's unanticipated delays, increased design and engineering work, and implementation modifications, and contributed to increased costs.

Witness Jones explained that as a result of the above factors, particularly design evolution and complexity of construction, Bechtel's<sup>37</sup> efforts in the engineering and work package preparation took longer than anticipated. FPL directed Bechtel to subcontract some of the work, reprioritized others, and developed and began implementing a plan to streamline Bechtel's work packages. As of December 31, 2011, 222 packages had been identified, of which 171 were at least 90 percent complete and 143 were final and approved. FPL also engaged Bechtel in senior-level meetings to address observed trends and metrics. FPL also awarded scopes of the St. Lucie work to other vendors as cost control efforts. FPL witness Jones provided a summary listing of 2011 FPL EPU activities indicating the power plant, respective contract, and scoping documents supporting the described activity.

FPL witness Jones discussed examples of resultant project planning impacts. FPL rescheduled a few St. Lucie Unit 2 modifications from Spring 2011 to Summer 2012, and a few Turkey Point Unit 4 modifications from the Spring 2011 outage into the Fall of 2012. Limited transmission and substation work was also moved into 2012. These revisions also impacted FPL's estimate of assets that had been estimated to be placed in service during 2011.

A December 31, 2011, revised summary timeline of the entire FPL EPU project was also provided in witness Jones's March 1, 2012 testimony. The project schedule shows NRC licensing activities were expected to continue into 2012, all long lead materials had been acquired, engineering design activities for St. Lucie Unit 1 and Turkey Point Unit 3 sites were completed late in 2011, but work continued into 2012 for the other sites. The completed implementation activities include the first outage cycle at each of the four units and the beginning of the second St. Lucie Unit 2 outage. Project close out was expected to begin in 2012 and end mid-2013.

FPL witness Jones explained FPL's 2011 cost variances by major cost category. We note that two variances exceeded \$10 million: licensing costs addressing NRC requirements increased approximately \$20 million; and power block engineering and procurement expenses increased approximately \$41.8 million, due primarily to increased work scope, longer installation times, increased planning, and scheduling changes. No party identified any specific activity or cost variance as unreasonable or unnecessary to complete the EPU project.

The only prudence concern with FPL's 2011 EPU project management actions was raised by Commission audit staff witnesses Fisher and Rich, and involved FPL's oversight of Siemens during a St. Lucie outage and led to a \$3.5 million adjustment. Commission audit staff's review was filed June 19, 2012. On August 1, 2012, FPL witness Jones filed supplemental testimony that explained subsequent to audit staff's review, a new commercial resolution between FPL and Siemens had been established that resolved the prudence concern. We concurred and during the hearing, on September 10, 2012, we approved a stipulation which explained the resolution.

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<sup>37</sup> FPL's EPU engineering, procurement, and construction (EPC) vendor is Bechtel.

### FPL's EPU Project Management Procedures and Related Controls

FPL's controls were documented, assessed, audited, and tested on a going-forward basis by both FPL's internal and external auditors, as well as Commission audit staff.

FPL witness Reed, with Concentric Energy Advisors, Inc., presented an independent review of FPL's 2011 internal project controls, processes, and procedures. Based on his review, he concluded that FPL's project management practices and procedures were reasonable and met or exceeded industry norms. He opined that FPL had appropriately and prudently managed the FPL EPU project.

FPL witness Ferrer, with Burns and Roe Enterprises, Inc., presented an independent review of FPL's 2011 EPU project activities to determine whether FPL performed reasonably and prudently. Witness Ferrer opined that FPL's implementation of the EPU project was reasonable and prudent, but not perfect.

As previously noted, Commission audit staff reviewed FPL's 2011 project management controls. The primary objective of each annual audit is to document key project developments, along with the organization, management, internal controls, and oversight that FPL has in place or plans to employ for these projects. 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. The review included a summary of historical, current, and future relevant key issues, such as cost estimates, NRC license review status, outages, work stoppages, and NRC's developing requirements since the 2011 tsunami in Japan.

Commission audit staff's review discussed concerns with FPL's oversight of Bechtel but made no specific finding of imprudence. Witnesses Fisher and Rich believed that, with the exception of the previously discussed Siemens oversight matter, FPL had and employed an adequate system of project controls, risk evaluation, and management oversight.

We note that FPL witness Jones's August 1, 2012, supplemental testimony indicated that three ongoing audits had been completed. FPL witness Jones affirmed that if the resolution of these investigations results in ineligible costs, then those costs will be reversed in the FPL's 2013 filings.

### FPL's EPU Accounting and Related Controls

FPL's EPU project accounting and related controls were generally described by FPL witness Powers. Witness Powers stated that the 2011 costs and controls will have been audited prior to the start of the hearing. Witness Powers asserted these audits will continue to provide assurance that the internal controls surrounding transactions and processes are well-established, maintained and communicated to employees, and provide additional assurance that the financial and operating information generated within FPL is accurate and reliable.

Commission staff accounting audit witness Maitre provided testimony and sponsored the 2012 accounting audit report of FPL's EPU project. As noted in this testimony, the Commission staff's audit activities included reconciliation and verification of 2011 costs to the general ledger and monthly accrual balances. The audit report verified that, absent three miscalculations, FPL's March 2012 filings for the 2011 period were consistent with and in compliance with Section 366.93, F.S., and Rule 25-6.0423, F.A.C. FPL witness Powers filed supplemental testimony on September 7, 2012, that explained FPL's June 11, 2012, errata filings had implemented corrections for the miscalculations.

As stated previously, 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.

We find that FPL's 2011 EPU project management, accounting and related controls were subjected to a reasonable level of review sufficient to determine prudence. We find no record evidence identifying any of FPL's 2011 EPU project management or accounting decisions and actions as unneeded or unreasonable. We also note that no party identified or claimed any specific 2011 EPU project management actions as unreasonable or imprudent. Therefore we find FPL's 2011 EPU project management, contracting, accounting and cost oversight controls reasonable and prudent.

#### XXVII. Prudence of EPU Management Activities at the Turkey Point Site

Our analysis discusses each of the following matters: FPL's engagement of High Bridge Associates; the effect of using the High Bridge Associates' estimate to perform a feasibility analysis; the historical pattern of increasing cost estimates; and FIPUG's alternative offered in its brief to OPC's proposed cost recovery limitation.

#### FPL's Engagement of High Bridge Associates

OPC witness Jacobs makes the following observations regarding FPL's requested High Bridge Associates work product:

Further, FPL's decision to pursue the Turkey Point uprate activities without first fully confronting the extremely high estimate of final costs which it engaged its consultant to prepare was a poor management decision, and the impact of that action should be absorbed by FPL, not its customers.

...

In 2010, FPL hired High Bridge Associates to independently review the Turkey Point EPU project costs. High Bridge issued a report on Turkey Point 3 & 4 EPU cost that estimated the final cost to be \$1,428,541,326. Significantly, this estimate did not encompass all the modifications involved in the full Turkey Point EPU activity. In other words, because High Bridge did not "price out" all

necessary modifications associated with the Turkey Point uprate project, the High Bridge estimate necessarily was lower than the indicated cost of the full project.

...

It [this Commission] should not ignore either the \$555 million increase in Turkey Point EPU costs, or the fact that the consultant that FPL hired to educate it on total project costs alerted FPL to the extreme cost of the project in 2010, only to have its work product effectively ignored by the client who had paid for the estimate, or the clear indication that the project is fast becoming uneconomic.

We note that OPC witness Jacobs asserted or implied that FPL engaged High Bridge Associates for the purpose of estimating the final costs for the Turkey Point activities. However, witness Jacobs appears to have acknowledged that the scope of the work product may have been intended to be more limited:

Even though its purpose in engaging High Bridge Associates was to provide an independent check on the information that FPL was receiving from Bechtel, FPL did not accept High Bridge's estimate until much later.

FPL witness Jones rebutted witness Jacobs's contentions, asserting that FPL hired High Bridge Associates to develop a cost estimate specific to the Turkey Point Unit 3 EPU modifications, to be used to challenge Bechtel's cost estimates for specific Unit 3 EPU project scope. FPL asserted that the final High Bridge Associates estimate was successfully used in challenging Bechtel and Bechtel ultimately lowered its cost estimates.

In our review of the 2010 High Bridge Associates report we found no information that would serve to indicate that the cost estimate was not inclusive of both Turkey Point Units 3 and 4 EPU modifications. We note that FPL did not dispute that the cost estimate represented costs for both Turkey Point Units 3 and 4 EPU modifications; FPL only disputed OPC witness Jacobs's representations that FPL's scope of engagement with High Bridge Associates had been for a total estimate involving both Turkey Point Units 3 and 4. Therefore, we find witness Jacobs's characterizations of the 2010 work product as inclusive of costs for activities at both Turkey Point Units 3 and 4 were accurate. However, OPC witness Jacobs's characterization of FPL's purpose in engaging High Bridge Associates may be inconsistent with the limited scope FPL requested because FPL did not engage High Bridge Associates to provide a total project estimate that included both Turkey Point Units 3 and 4. Consequently, we find it would be inappropriate to make a finding of imprudence if that finding hangs solely on witness Jacobs's representation of the purpose of FPL's engagement of High Bridge Associates.

We note that High Bridge Associates was also used in a subsequent cost estimating effort. FPL witness Jones testified that during 2011, FPL asked Bechtel to provide a "proposed target price to complete the Turkey Point EPU work." High Bridge Associates was retained by Bechtel, at FPL's request, to assist in estimating the labor portion of the implementation services. In November 2011, FPL received Bechtel's cost estimate, which reflected (i) design evolution, (ii) increased implementation complexity, (iii) constructability issues, and (iv) increased direct

and indirect labor. Witness Jones described FPL's actions upon receipt of Bechtel's estimated cost to complete Turkey Point EPU work:

In December 2011 through April 2012, FPL performed extensive due diligence on Bechtel's Turkey Point EAC as well as revised estimates for St. Lucie. This included enormous amounts of engineering, corporate staff and executive work to analyze the EAC. In order to better understand and analyze the basis for the EAC, FPL's due diligence included several trips to Bechtel in Frederick, Maryland by FPL senior management and several trips to FPL's headquarters by Bechtel senior management.

FPL worked with Bechtel and High Bridge to perform a detailed review of all inputs and assumptions used in estimating the remaining work at each plant. The detailed review work included three days of lengthy sessions with senior management from FPL and Bechtel. Those sessions built upon the close analysis that FPL had already performed to scrutinize in detail key elements of the cost estimate, including: (i) units of productivity; (ii) quantifications of commodities; (iii) "implied complexity factors" which are an industry standard measure of how complicated work is to perform; (iv) labor rates; and (v) professional rates, among other cost estimate inputs. The focus of these detailed reviews was to validate that the inputs being used in the cost estimating process were not overly conservative.

FPL and Bechtel ultimately negotiated price reductions totaling \$135 million. We note that no party presented evidence challenging the prudence of either FPL's various engagements of High Bridge Associates or FPL's use of the cost estimates High Bridge Associates provided.

#### The Significance of a \$1.4 Billion Estimate in a 2011 Feasibility Analysis

OPC witness Jacobs opined that the 2012 increase in the total EPU project cost estimate "is being driven by soaring costs at the Turkey Point plant site, which is on a runaway course of its own." He then asserted:

Had FPL incorporated an estimate for Turkey Point that was consistent with the High Bridge's 2010 estimate during the 2011 proceeding, the magnitude of the increase would have led to a materially different feasibility calculation.

It appears OPC witness Jacobs represented that if FPL had used a higher total cost estimate in the 2011 feasibility analysis that would have, in turn, influenced FPL's decisions to reduce future expenditures to avoid the "soaring project costs." However, witness Jacobs did not identify any activities or cost adjustments that would have resulted from using the \$1.4 billion estimate in the 2011 feasibility analysis in lieu of the amount FPL did use in its 2011 feasibility study. Nevertheless, OPC witness Jacobs contended that FPL was imprudent for not using the \$1.4 billion estimate in 2011, and he asserted that soaring project costs resulted. He opined that the remedy necessary to protect customers from these asserted soaring project costs was a cap on FPL's allowed recovery amount at FPL's current projection to complete the Turkey Point EPU

activities. We note that witness Jacobs's suggested solution relied on FPL's current cost estimate, which he also used to suggest the existence of soaring project costs.

Regardless, we find that both FPL and OPC support the use of the same 2012 estimated amount. FPL's current total project cost estimate is \$1.673 billion for the Turkey Point site. FPL opined in its brief that OPC's witness did not identify any imprudent FPL activities that caused the cost of the Turkey Point EPU work to increase. We concur and conclude that the record did not demonstrate that use of a \$1.4 billion estimate in FPL's 2011 feasibility analysis would have resulted in a lower cost estimate than FPL's current cost estimate.

#### Historical Pattern of Annual Increases

FPL's cost estimates have increased each year. An illustration of these changes was presented by OPC witness Jacobs. Although FPL witness Jones rebutted the OPC witness's cost levels in certain years, the fact of annual increases was not denied. OPC witness Jacobs opined that "this Commission should take action to protect customers in the event FPL fails to manage the balance of the Turkey Point uprate activities within its current estimate." We agree that the consequence of any FPL imprudence, if any, shall not be placed on its customers, even if FPL completes the project below its current cost estimate.

We also agree that, all things being equal, increasing costs, even if prudently incurred, could make a project appear to be economically infeasible. However, the analysis of feasibility considers factors that are not solely economic. Consistent with our finding in section XXV, we do not find the year-to-year increases in cost estimates demonstrate that FPL was imprudent.

#### FIPUG's Alternative

FIPUG argued that an alternative to limiting FPL's recovery level was to reject FPL's contention that cost increases and delays can be traced exclusively to seismic events in Japan and Virginia, and NRC staffing issues. In its brief, FIPUG asserted FPL witness Ferrer estimated that the daily amount of money spent by FPL on its EPU projects was in excess of \$1 million per day. FIPUG argued that, for each day of delay attributable, directly or indirectly, to FPL, we should reduce by \$1 million the amount that FPL is able to recover from its ratepayers for these activities.

We note that use of \$1 million per day table relies on the following exchange between FIPUG's attorney and witness Ferrer:

Q Do you have an idea as we sit here today what the -- I'll call it a daily burn rate, but what I'm referring to is what the expenditures are on a daily basis for the combined projects.

A Certainly it would be very high but I did not calculate a number. Again, it was not a necessary issue. I was more interested in the decisions and actions that FPL personnel were taking on a daily, weekly, monthly basis for the year 2011.

Q So you don't have any idea on the –

A I know it's a very large number, in the order of millions.

Q I'm sorry?

A In the order of millions, but I don't know the number.

Q On a daily basis?

A I would say so, close to it. I would say at least a million dollars a day easy.

We doubt the sufficiency of the above testimony to impose a \$1 million per day penalty as suggested by FIPUG in an effort to address FPL's management of the Turkey Point Uprate activities. The above testimony clearly indicates the \$1 million estimate was provided in response to a question regarding the total EPU project daily expenses inclusive of the costs for activities at St. Lucie and Turkey Point. Consequently, the \$1 million amount may be excessive and imprecise in addressing matters specific and unique to FPL's oversight of the Turkey Point uprate activities and costs. Additionally, the record evidence did not identify any 2011 project delays at the Turkey Point site that were attributable to FPL. However, as previously discussed, project delays at the St. Lucie site were identified and addressed.

Again, 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.

Based on the foregoing, we find that FPL's actions concerning the 2010 High Bridge Associates work products were reviewed sufficiently to determine prudence. We note that no party identified any activities or costs specific to completing the Turkey Point EPU project that are unreasonable or imprudent, and would necessitate adjustments or exclusions. Therefore we find that in the previous year (2011) and the current year to date (2012), FPL managed the EPU activities in a reasonable and prudent manner.

#### XXVIII. Prudence of 2011 Incurred Costs and Final True-Up for FPL's EPU

##### FPL's Final 2011 EPU Costs

FPL provided a series of schedules detailing its 2011 EPU costs and its calculation of its requested 2011 recovery amount. FPL witnesses Powers and Jones indicated that the 2011 incurred construction costs for the EPU project totaled \$667,493,187 (\$640,855,812 jurisdictional, net of participants). As of year-end 2011, FPL's EPU project construction costs totaled \$1,314,908,119 (\$1,218,121,252 jurisdictional, net of participants). They also indicated that the carrying costs on FPL's EPU project capital costs totaled \$78,251,442. FPL's 2011 O&M costs and interest calculation of \$12,172,529 (\$11,584,442 jurisdictional, net of participants)

We would again note that no party identified any specific activity or cost as unreasonable, imprudent, or unnecessary to complete the EPU project.

#### FPL's Final True-up of the 2011 EPU Recovery Amount

FPL witness Powers provided a summary schedule of FPL's 2011 Nuclear Cost Recovery Clause amounts comparing its actual 2011 amounts to amounts approved in prior proceedings. Witness Powers explained that FPL's resulting final 2011 Nuclear Cost Recovery Clause amount should be \$270,057, because final 2011 costs were, on a net basis, higher than the prior estimate. In addition, FPL witness Powers provided support for the variance in estimated base rate revenue requirements for portions of the EPU project that were planned to enter service during 2011.

The requested 2011 final net true-up amount includes the following items: under-estimated carrying costs of \$7,964,134, over-estimated O&M costs of \$679,375, and over-estimated base rate revenue requirements for 2011 of \$7,014,702, including associated carrying charges. FPL requested that these amounts be used in determining the 2013 total NCRC recovery amount.

Based on the foregoing we approve as prudently incurred 2011 EPU project capital costs of \$667,493,187 (\$640,855,812 jurisdictional net of joint owners and other adjustments) and O&M costs of \$12,172,529 (\$11,584,442 jurisdictional net of joint owners) including interest. The final 2011 true-up amount, net of prior recoveries, is \$270,057 and shall be used in determining the total net 2013 Nuclear Cost Recovery Clause amount.

#### XXIX. Reasonableness of Estimated 2012 Incurred Costs and Final True-Up for FPL's EPU Project

##### FPL's Estimated 2012 EPU Costs

FPL witness Jones provided descriptions of the 2012 EPU project activities, costs, and variances. Witnesses Powers and Jones co-sponsored a series of schedules detailing FPL's 2012 EPU costs and its calculation of its requested 2012 recovery amount.

FPL witnesses Powers and Jones identified the estimated 2012 EPU construction capital costs of \$1,058,854,365 (\$1,017,306,408 jurisdictional net of participants), and O&M costs of \$15,000,523 (\$14,546,749 jurisdictional net of participants). We note that FPL's amount includes a \$4,786 interest true-up in its calculation of the jurisdictional O&M amount. FPL estimated that by year-end 2012, it will have incurred EPU project construction expenses totaling \$2,373,762,484 (\$2,269,525,324 jurisdictional net of participants).

FPL witness Jones asserted that the EPU project is on schedule for completion. However, FPL estimated there will be a net cost increase relative to FPL's 2011 estimate. Witness Jones attributed \$110 million of the total project cost increase to modifications necessary to meet NRC requirements and schedule changes in response to delays in NRC's approvals. He attributed another \$150 million to design evolution. He described design evolution as an iterative engineering process that responds to discoveries during engineering

design. He attributed another \$220 million of the increase to construction implementation and logistics. We would note that no party argued that the EPU project should not be completed.

FPL witness Jones provided an overview of activities planned for 2012, identified the associated contracts, and listed documents FPL relied on in its decisions. He also provided a summary of 2012 project costs by cost category. In supplemental testimony filed August 1, 2012, witness Jones updated this Commission regarding the completion of the St. Lucie Unit 1 EPU, and completion of several internal and external audits. The capacity of St. Lucie Unit 1 was increased by approximately 144 megawatts as a result of the completed EPU.

Finally we would note that no party argued that FPL's estimate of 2012 EPU activities and 2012 costs were unreasonable or unnecessary to complete the project.

#### FPL's Estimated True-up of the 2012 EPU Recovery Amount

FPL witness Powers provided support for the 2012 EPU project costs and methods used to determine the requested estimated true-up recovery amount. Witness Powers asserted that FPL's estimated 2012 nuclear cost recovery true-up amount is \$45,615,272 because the 2012 estimate was higher, on a net basis, than the prior estimate. FPL witness Powers also provided support for the variance in estimated base rate revenue requirements for portions of the EPU project that were planned to enter service during 2012.

The requested 2012 estimated true-up amount includes the following items: under-estimated carrying costs of \$37,645,274, under-estimated O&M costs of \$9,085,552, and over-estimated base rate revenue requirements for 2012 of \$1,115,554, including associated carrying charges. FPL requested that these amounts be used in determining the 2013 total NCRC recovery amount.

Based on Commission staff's verification of FPL's calculations, and a preponderance of the evidence in the record, we find FPL has demonstrated the reasonableness of its requested estimate of 2012 incurred costs and true-up amounts for the EPU project. Therefore we approve as reasonable estimates of 2012 costs of \$1,058,854,365 (\$1,017,306,408 jurisdictional net of participants) for the EPU project capital costs and \$15,000,523 (\$14,456,749 jurisdictional net of participants) for O&M costs. The estimated 2012 true-up amount of \$45,615,272 shall be used in determining the total net 2013 NCRC amount.

#### XXX. Reasonableness of Projected 2013 Incurred Costs for FPL's EPU

##### FPL's Projected 2013 EPU Costs

FPL witness Jones provided descriptions of the 2013 EPU project activities and costs. Witnesses Powers and Jones co-sponsored a series of schedules detailing FPL's 2013 EPU costs and its calculation of its requested 2013 recovery amount.

FPL witnesses Powers and Jones identified the estimated 2013 EPU construction capital costs of \$163,996,072 (\$161,047,828 jurisdictional net of participants), and O&M costs of

\$5,170,770 (\$5,077,869 jurisdictional net of participants). We note that FPL's amount includes a \$3,152 interest true-up in its calculation of the jurisdictional O&M amount. FPL estimated that by year-end 2013, it will have incurred EPU project construction costs totaling \$2,537,756,556 (\$2,430,573,152 jurisdictional net of participants).

FPL witness Jones asserted that the 2013 EPU project will be completed. He provided an updated timeline estimating the last EPU-related outage will end in March 2013, with ongoing project close-out activities extending to the July/August 2015 timeframe. Similar to the information provided for the 2012 period, witness Jones provided a summary of planned 2013 activities, identified the respective contracts, and listed documents FPL relied on in its planning decisions. He also provided a summary of 2013 project costs by cost category. We note that, similar to the reviews for 2011 and 2012, no party argued that FPL's estimate of 2013 activities and costs were unreasonable or unnecessary to complete the project.

#### FPL's Projected 2013 EPU Recovery Amount

FPL witness Powers provided support for the 2013 EPU project costs and methods used to determine the requested recovery amount of \$85,249,950. In addition, FPL witness Powers provided support for the estimated base rate revenue requirements for portions of the EPU project scheduled to enter service during 2013.

The requested 2013 recovery amount includes the following items: carrying costs of \$15,433,878, O&M costs of \$5,077,869, and estimated base rate revenue requirements for 2013 of \$64,738,202. FPL requested that these amounts be used in determining the 2013 total NCRC recovery amount.

Based on Commission staff's verification of FPL's calculations, and a preponderance of the evidence in the record, we find FPL has demonstrated the reasonableness of its requested estimate of 2013 incurred costs and true-up amounts for the EPU project. Therefore, we approve as reasonably projected 2013 EPU project capital costs of \$163,996,072 (\$161,047,828 jurisdictional net of participants) and O&M costs of \$5,170,770 (\$5,077,869 jurisdictional net of participants). The projected 2013 amount of \$85,249,950 shall be used in determining the total net 2013 NCRC amount.

#### XXXI. FPL's 2013 Capacity Cost Recovery Clause Recovery

The total jurisdictional amount is the sum of the recovery amounts decided in Sections XVII through XXX. For purposes of completeness, the effects of each of the parties' positions in preceding hearing issues are shown in Table 16.

Table 16: FPL's Net 2013 Nuclear Cost Recovery Clause Amount

	FPL	OPC, FIPUG, FEA, FRF	SACE	Approved
Turkey Pt. 6and7 Project				
2011 Final True-up	\$ -15,372,530	\$ -15,372,530	\$ 0	\$ -15,372,530
2012 Est. True-up	734,498	734,498	\$ 0	734,498
2013 Projections	34,994,155	34,994,155	\$ 0	34,994,155
Turkey Pt. 6and7 Project Subtotal	\$ 20,356,123	\$ 20,356,123	\$ 0	\$ 20,356,123
FPL's EPU Project				
2011 Final True-up	\$ 270,057	\$ 270,057	\$ 270,057	\$ 270,057
2012 Est. True-up	45,615,272	45,615,272	45,615,272	45,615,272
2013 Projections	85,249,950	85,249,950	85,249,950	85,249,950
FPL's EPU Project Subtotal	\$131,135,279	\$131,135,279	\$131,135,279	\$131,135,279
Net NCRC Total 2013 Amount				
	\$151,491,402	\$151,491,402	\$131,135,279	\$151,491,402

We approve a total jurisdictional amount of \$151,491,402 as the 2013 Nuclear Cost Recovery Clause amount. This amount shall be used in establishing FPL's 2013 Capacity Cost Recovery Clause factor.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the findings set forth in the body of this Order are hereby approved. It is further

ORDERED that all matters contained in the attachments appended hereto are incorporated herein by reference. It is further

ORDERED that Progress Energy Florida, Inc. is hereby authorized to include the nuclear cost recovery amount of \$102,696,903 to be used in establishing its 2012 capacity cost recovery factor. It is further

ORDERED that Florida Power & Light Company is hereby authorized to include the nuclear cost recovery amount of \$151,491,402 to be used in establishing its 2012 capacity cost recovery factor.

By ORDER of the Florida Public Service Commission this 11th day of December, 2012.



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ANN COLE

Commission Clerk

Florida Public Service Commission

2540 Shumard Oak Boulevard

Tallahassee, Florida 32399

(850) 413-6770

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Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

MTL

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request:

- 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or
- 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

**APPROVED STIPULATIONS**

On September 5, 2012, during the hearing in Docket No. 120009, this Commission heard a motion from PEF to defer its review of the long-term feasibility of completing the CR3 Uprate and its determination of the reasonableness of PEF's 2012 and 2013 CR3 Uprate expenditures and associated carrying costs until the 2013 Nuclear Cost Recovery Clause proceedings. The motion was unopposed and granted by the Commission. Subsequently, PEF, OPC, SACE, FIPUG, PCS Phosphate, FEA and FRF offered the following stipulations that rendered moot other disputed matters associated with our review of PEF's 2012 and 2013 CR3 Uprate project in this. We approved these stipulations on September 11, 2012

**ISSUE 2:** Should the Commission disallow recovery of any AFUDC on the Crystal River Unit 3 Uprate project in 2012 and 2013 due to the lack of a final decision to repair or retire Crystal River Unit 3? If yes, what amount should the Commission disallow, if any?

**STIPULATION**

The questions presented in this issue are moot for the 2012 nuclear costs recovery clause ("NCRC") hearing because on September 5, 2012 this Commission voted to approve PEF's motion requesting deferral of this Commission's review of the reasonableness of PEF's 2012 and 2013 CR3 Uprate estimated and projected costs and associated carrying costs until the 2013 NCRC proceeding.

**ISSUE 12:** Should the Commission approve what PEF has submitted as its 2012 annual detailed analysis of the long-term feasibility of completing the Crystal River Unit 3 Uprate project, as provided for in Rule 25-6.0423, F.A.C.? If not, what action, if any, should the Commission take?

**STIPULATION**

This issue is moot for the 2012 NCRC hearing because on September 5, 2012 this Commission voted to approve PEF's motion requesting deferral of this Commission's review of the long-term feasibility of completing the CR3 Uprate project until the 2013 NCRC proceeding.

**ISSUE 16:** Is it reasonable for PEF to incur or expend all of the estimated and projected Crystal River Unit 3 Uprate project expenditures in 2012 and 2013 in the absence of a final decision to repair or retire CR3?

**STIPULATION**

This issue is moot for the 2012 NCRC hearing because on September 5, 2012 this Commission voted to approve PEF's motion requesting deferral of this Commission's review of the reasonableness of PEF's 2012 and 2013 CR3 Uprate estimated and projected costs and associated carrying costs until the 2013 NCRC proceeding.

**APPROVED PARTIAL STIPULATION**

The following partial stipulation addresses only one incident related to St. Lucie Unit 2 and the costs that flowed from that incident. The remaining costs that will flow through Issue 29 are not addressed by this stipulation. Specifically, the matters raised by OPC in Issue 29A and incorporated in Issue 29 by reference, are not addressed by this partial stipulation. Florida Power & Light Company agreed with Commission staff's position. The remaining parties do not object to this partial stipulation. This stipulation was taken up and approved by this Commission at the hearing for Docket No. 120009 on September 11, 2012

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

**PARTIAL STIPULATION**

As to the testimony of Commission staff witnesses Rich and Fisher regarding the St Lucie Unit 2 nuclear plant stator core work:

In its 2012 actual/estimated costs for St. Lucie Unit 2, FPL included costs payable to Siemens for contract work at St. Lucie nuclear plant. Commission Audit Staff recommended a \$3.5 million disallowance of EPU costs with respect to the St. Lucie nuclear plant stator core work. Commission audit staff noted that there was an additional 22 days of outage associated with the nuclear plant stator core work. FPL filed rebuttal testimony controverting audit staff's findings regarding FPL's management of the St. Lucie nuclear plant stator core work. FPL also responded to Commission staff discovery stating that the stator alignment pin issue added approximately 195 unplanned outage hours to the total duration of the outage.

Subsequent to the filing of its rebuttal testimony, FPL filed supplemental testimony and exhibits in which it explained that FPL negotiated a new agreement related to FPL's costs for the St. Lucie Unit 2 stator core repair work. The new agreement removes the \$3.5 million of costs FPL was responsible for paying to Siemens for the stator core work.

An additional aspect of the new agreement between FPL and Siemens was a reduction of \$(confidential) of the amount owed by FPL to Siemens for other contractual work. The basis for the reduction is the resolution of the nuclear stator core work.

Accordingly, Commission staff recommends the Commission find that Commission audit staff's recommendation for the disallowance is now moot because FPL negotiated a resolution with its contractor which adequately addresses the considerations raised by Commission audit staff. Commission audit staff will verify the removal of these costs in its next scheduled annual audit.