

**Kimberley Pena**

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**From:** Kimberley Pena  
**Sent:** Thursday, October 14, 2010 1:29 PM  
**To:** Jim Breman; Dale Buys; Keino Young; Lisa Bennett  
**Cc:** Mary Macko; Katie Ely; Carol Purvis  
**Subject:** RE: Docket No. 100009-EI, Item No. 9

Correction. Per CASR revision, we will place the recommendation filed on 10/04/2010 (DN 08296-10) on the 10/26/2010 Commission Conference.

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**From:** Kimberley Pena  
**Sent:** Thursday, October 14, 2010 1:23 PM  
**To:** Jim Breman; Dale Buys; Keino Young; Lisa Bennett  
**Cc:** Mary Macko; Katie Ely; Carol Purvis  
**Subject:** RE: Docket No. 100009-EI, Item No. 9

Per your phone conversation with CLK staff, we will place the recommendation filed on 10/04/2010 (DN 08296-10) on the 10/26/2010 Commission Conference.

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**From:** Carol Purvis  
**Sent:** Wednesday, October 13, 2010 2:58 PM  
**To:** Jim Breman; Dale Buys; Keino Young; Lisa Bennett  
**Cc:** Mary Macko; Katie Ely; Kimberley Pena; Carol Purvis  
**Subject:** Docket No. 100009-EI, Item No. 9

At the October 12, 2010 Commission Conference, the Commissioners deferred Docket No. 100009-EI, Item No. 9 to the October 26, 2010 Commission Conference.

Please advise **immediately** if this item is to be placed on the October 26, 2010 Conference agenda, and if the same recommendation will be used or if a new one will be filed.

If the recommendation is to be placed on a conference agenda other than the October 26, 2010, please file a revised CASR with Katie Ely by Friday, October 15, 2009.

DOCUMENT NUMBER-DATE

08615 OCT 14 2010

FPSC-COMMISSION CLERK

10/14/2010

State of Florida



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**Public Service Commission**

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TALLAHASSEE, FLORIDA 32399-0850

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

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10 OCT -4 PM 1:36  
COMMISSION CLERK

**DATE:** September 30, 2010

**TO:** Office of Commission Clerk (Cole)

**FROM:** Division of Economic Regulation (Bremman, Buys, Cicchetti, Davis, Hinton, Laux, Maurey)  
Office of the General Counsel (Young, Bennett, Jackson, Leveille, Williams) *ALM*  
Division of Regulatory Analysis (Garland) *AKW*

**RE:** Docket No. 100009-EI – Nuclear cost recovery clause.

**AGENDA:** 10/12/10 – Regular Agenda – Post-Hearing Decision – Participation is Limited to Commissioners and Staff

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Skop

**CRITICAL DATES:** None

**SPECIAL INSTRUCTIONS:** This recommendation is a redacted copy

**FILE NAME AND LOCATION:** S:\PSC\ECR\WP\100009.RCM.DOC

**Case Background**

On March 1, 2010, Progress Energy Florida, Inc. (PEF) and Florida Power & Light Company (FPL) filed petitions seeking prudence review and final true-up of the 2009 costs for certain nuclear power plant projects pursuant to Rule 25-6.0423, Florida Administrative Code, (F.A.C.) and Section 366.93, Florida Statutes (F.S.). On April 30, 2010, PEF filed a petition seeking approval to recover estimated 2010 costs and projected 2011 costs. On May 3, 2010, FPL filed its petition seeking approval to recover estimated 2010 costs and projected 2011 costs.

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Both companies requested recovery of these costs through the Capacity Cost Recovery Clause (CCRC).

PEF's petitions addressed two nuclear projects. The first PEF project is a multi-phased uprate of the existing nuclear generating plant Crystal River Unit 3 (CR3 Uprate). PEF obtained an affirmative need determination for the CR3 Uprate by Order No. PSC-07-0119-FOF-EI.<sup>1</sup> The second PEF project is the construction of two new nuclear generating plants, Levy Units 1 & 2 (LNP). PEF obtained an affirmative need determination for the LNP by Order No. PSC-08-0518-FOF-EI.<sup>2</sup>

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

Traditionally, all eligible power plant construction projects have been afforded the same regulatory accounting and ratemaking treatment. That is, once the need for a project has been determined, the utility books 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 this account and the resulting dollar amount is then added to the account balance. This process continues until the completion of the project.

Once the plant is placed in commercial service, the CWIP account balance is transferred to the appropriate plant-in-service account and becomes part of the utility's rate base. The impacts of including the total project costs in a utility's rate base, as well as the impacts of additional plant operational expenses, are addressed during a subsequent proceeding wherein it is determined whether customer base rate charges should be changed in order to provide the opportunity to recover these costs.

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

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<sup>1</sup> Attachment B, Item 1  
<sup>2</sup> Attachment B, Item 7  
<sup>3</sup> Attachment B, Item 3  
<sup>4</sup> Attachment B, Item 5

clause. By Order No. PSC-07-0240-FOF-EI, Rule 25-6.0423, F.A.C., was adopted to implement Section 366.93, F.S.<sup>5</sup>

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 affected utility may petition for cost recovery using the alternative mechanism. Three types of prudently incurred costs are described in the rule for such consideration.

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

In Order No. PSC-08-0749-FOF-EI, issued October 12, 2008, the Commission approved stipulations among the parties to Docket No. 080009-EI, recommending that site selection costs be treated in the same manner as pre-construction costs. Pursuant to Section 366.93(2)(a), F.S., and Rule 25-6.0423(5), F.A.C., all prudently incurred preconstruction costs, as well as the carrying charges on prudently incurred construction costs are to be recovered directly through the CCRC.

Rule 25-6.0423(5), F.A.C., sets forth the process by which the Commission conducts an annual hearing to determine the recoverable amount that will be included in the CCRC pursuant to Section 366.93, F.S. This is the third year of the nuclear cost recovery roll-over docket (NCRC). Appendix B is chronological listing of all Commission Orders implementing Section 366.93, F.S. and Rule 25-6.0423, F.A.C.

Intervention was granted to the following parties: the Office of Public Counsel (OPC), Florida Industrial Power Users Group (FIPUG), White Springs Agricultural Chemicals Inc. d/b/a PCS Phosphate – White Springs (PCS Phosphate), Southern Alliance for Clean Energy (SACE), and the Federal Executive Agencies (FEA). Testimony and associated exhibits were filed by PEF, FPL, OPC, PCS Phosphate, SACE, and Commission staff.

The evidentiary hearing for the PEF portion of the 2010 NCRC was held on August 24-25, 2010. The FPL portion of the evidentiary hearing was held on August 26-27, 2010 and September 7, 2010. During the FPL portion of the hearing FPL, OPC, and FIPUG filed a motion

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<sup>5</sup> Attachment B, Item 2

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to defer the resolution of all FPL-specific issues until the 2011 NCRC. On September 7, 2010, the Commission approved the motion.<sup>6</sup>

Consequently, this recommendation addresses the remaining legal and factual issues. The legal issues pertain to the qualification of PEF's LNP activities pursuant to Section 366.93, F.S., and the Commission's authority to require a "risk sharing" mechanism. The fact-based issues address PEF's 2009 project management, long-term feasibility analysis for the CR3 Uprate project and the LNP, the reasonableness of pursuing the LNP combined operating license (COL), PEF's prudence during 2009, and the reasonableness of estimated 2010 and projected 2011 costs.

All parties, excluding FEA, filed post-hearing briefs on September 10, 2010. Decisions on issues pertaining to the Commission's authority to require a risk sharing mechanism (Issues 3A and 7), may be impacted by a ruling from the 1<sup>st</sup> District Court of Appeals decision in Case No. 1D10-4757. The Commission has jurisdiction over these matters pursuant to Section 366.93, F.S., and other provisions of Chapter 366, F.S.

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<sup>6</sup> TR 1813

<u>List of Acronyms and Abbreviations</u>	
AFUDC	Allowance for funds used during construction
CCRC	Capacity Cost Recovery Clause
CFR	Code of Federal Regulations
COL	Combined operating license
COLA	Combined operating license application (NRC filings)
Commission	Florida Public Service Commission
CPVRR	Cumulative present value revenue requirement
CR3 Uprate	Multi-phased uprate project at PEF's Crystal River Unit 3
CWIP	Construction work in progress
CO <sub>2</sub>	Carbon dioxide
DEP	Department of Environmental Protection
EPC	Engineering, procurement and construction
F.A.C.	Florida Administrative Code
FEA	Federal Executive Agencies
FIPUG	Florida Industrial Power Users Group
FPL	Florida Power & Light Company
F.S.	Florida Statutes
kWh	Kilowatt-hour (1000 watt-hours)
LAR	License amendment request (NRC filings)
LNP	Levy Units 1 & 2 project
LWA	Limited work authorization (NRC filings)
MW	Megawatt (1,000,000 watts)
NCRC	Nuclear Cost Recovery Clause
NRC	Nuclear Regulatory Commission
O&M	operation 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
RAI	Request for additional information (NRC filings)
ROE	Return on equity
SACE	Southern Alliance for Clean Energy
SMC	Senior Management Committee
Shaw/Westinghouse	A consortium of Shaw-Stone & Webster and Westinghouse that owns and controls the design of the AP1000 nuclear power plant
USACE	United States Army Corps of Engineers

### Discussion of Issues

**Issue 2:** Do PEF's activities related to Levy Units 1 & 2 qualify as "siting, design, licensing, and construction" of a nuclear power plant as contemplated by Section 366.93, F.S.?

**Recommendation:** Yes. Staff recommends the Commission find that PEF's activities related to Levy Units 1 & 2 qualify as "siting, design, licensing, and construction" of a nuclear power plant as contemplated by Section 366.93, F.S, because these activities satisfy the statutory definition for preconstruction cost as defined pursuant to the statute. (Young, Williams, Bennett)

#### Position of the Parties

**PEF:** Yes. PEF's LNP activities satisfy Section 366.93 which provides that all prudently incurred "costs" associated with siting, design, licensing, and construction of a nuclear power plant are recoverable. The Florida Legislature defined "costs" to include "all capital investments, including rate of return, and applicable taxes, and all expenses, including operation and maintenance expenses, related to or resulting from the siting, licensing, design, construction, or operation of the nuclear power plant." Costs for PEF's licensing and other LNP activities clearly satisfy this statutory definition.

**OPC:** Possibly not. The LNP project may no longer meet Section 366.93, Florida Statutes, and requirements for advance recovery. The evidence shows that in contrast to prior assertions, PEF is reversing course and is not actively pursuing the construction of a nuclear power plant nor actively investing in nuclear generation. The Commission should further evaluate whether advance recoverability of costs incurred after the May 1, 2010 announcement to suspend the construction of LNP at least 5 years is appropriate.

**PCS PHOSPHATE:** No. PCS agrees with OPC that the LNP project no longer appears to meet the letter and intent of Section 366.93 F.S. Pursuit of a COL alone without a manifest intent to construct the units does not meet the requirements of the statute. No further advance recovery of LNP project costs should be permitted until Progress re-activates siting, engineering, procurement and other non-licensing related project activities.

**FIPUG:** No. The intent of section 366.93, Florida Statutes, is to encourage the construction of nuclear power plants to serve the ratepayers. Currently, PEF is not actively pursuing construction of the LNP and has no clear intent to build the project. Thus, it no longer complies with the statute.

**SACE:** No. PEF's own testimony in this docket related to Levy Units 1 & 2 clearly indicates that PEF is no longer actively pursuing the "siting, design, licensing, *and* construction" of a nuclear power plant. Rather, PEF is, by its own admission, merely engaged in an attempt at "licensing" a nuclear power plant. This pursuit of a COL alone, with no demonstrated commitment to actually construct the LNP, does not meet the letter and intent of the statute.

**Staff Analysis:** Section 366.93, F.S., provides for advanced cost recovery for utilities engaged in the siting, design, licensing, and construction of nuclear power plants. The Commission has interpreted this statute to include building of new nuclear power plants and modification to existing nuclear power plants. 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 Nos. PSC-09-0783-FOF-EI, issued on November 11, 2009, in Docket No. 090009-EI, In re: Nuclear Cost Recovery Clause. In analyzing this issue, the main question 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 under Section 366.93, F.S.

Based upon staff's analysis of the applicable statute, prior Commission decisions, and prior Florida case law, it does not believe that a utility must engage in the siting, design, licensing, and construction of nuclear power plant activities simultaneously in order to meet the statutory requirements under Section 366.93, F.S. Staff believes that a utility must continue to demonstrate its intent to build the nuclear power plant for which it seeks advance recovery of costs to be in compliance with Section 366.93, F.S. To interpret Section 366.93, F.S., to require a utility to engage in all activities simultaneously in order to qualify for advance cost recovery is an incorrect interpretation of the statute for the reasons discussed below.

First, there are various phases of constructing a nuclear power plant such as siting, design, licensing, and the physical building of the plant. These phases generally cannot occur simultaneously. In fact, Section 366.93(1)(f), F.S., contemplates the various phases of constructing a nuclear power plant, explicitly establishing demarcations of what is preconstruction and what is construction of a nuclear power plant. For example, Section 366.93(1)(f), F.S., defines the word preconstruction. Under the statute:

Preconstruction is that period of time after a site, including any related electrical transmission lines or facilities, has been selected through and including the date the utility completes site clearing work. Preconstruction costs shall be afforded deferred accounting treatment and shall accrue a carrying charge equal to the utility's allowance for funds during construction (AFUDC) rate until recovered in rates.

Furthermore, Section 366.93(2)(a), F.S., establishes that recovery of any preconstruction cost will occur through the Capacity Cost Recovery Clause. Here, staff believes that PEF's activities, as it relates to the LNP, qualifies as preconstruction costs as defined by Section 366.93(1)(f), which is recoverable pursuant to the statute. PEF has selected a site, namely the Levy site, and has not yet completed site clearing. Thus, any cost PEF is incurring is preconstruction cost which is recoverable pursuant to Sections 366.93(1)(f) and (2)(a), F.S. Therefore, a rigid reading of Section 366.93, F.S., to require a utility to engage in the siting, design, licensing, and construction of nuclear power plant activities simultaneously would be an incorrect interpretation of the statute.

Second, the Commission has previously allowed nuclear cost recovery, since the inception of the NCRC, without requiring siting, design, licensing, and construction of nuclear power plant activities to occur simultaneously. 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 11, 2009, in Docket No. 090009-EI, In re: Nuclear Cost Recovery Clause. The Commission allowed FPL to recover costs associated with the licensing activities for Turkey Point Units 6 and 7 after finding those costs reasonable and prudent. As mentioned in PEF's brief, FPL does not have an engineering, procurement, or construction contract for the plants, and does not intend to enter into such a contract until some point in the future. (PEF BR 8) However, the Commission has required that a utility must continue to demonstrate its intent to build the plant for which it seeks advance recovery of costs.

The intervenors contend that PEF's actions do not comport with the purpose of the statute, which is to promote investment in nuclear energy through the siting and ultimate construction of nuclear power plants. (FIPUG BR 4; SACE BR 26; PCS Phosphate BR 11; OPC BR 12-13) They argue that PEF has decided to suspend all work and major capital expenditures on the LNP except that necessary to continue its attempt at obtaining a COL from the Nuclear Regulatory Commission (NRC). They further argue that the utility is not engaging in the siting, design, licensing, and construction of a nuclear power plant. Also, the intervenors assert that "no PEF witness could testify that the LNP project would be built," thus, there is uncertainty whether the nuclear plants would be constructed. (OPC BR 12) Moreover, the intervenors contend that

today, the project is on hold for at least 5 years and any safety related construction cannot be undertaken until at least three steps occur: (1) the NRC must issue [sic] the COL; (2) The PGN Board must vote to authorize management to give notice to the EPC contractor to restart the work, and (3) the notice must then be given to the contractor. PEF has testified that this process will not likely take place until 2013 at the earliest, if at all.

(OPC BR 12-13)

Staff acknowledges the intervenors' concerns that a lengthy delay of this magnitude until actual construction begins to signal a termination of the project. Staff also recognizes the potential pitfalls that might result due to a delay of this magnitude. However, staff believes that PEF continues to demonstrate its intent to build the plant. PEF amended its engineering, procurement and construction (EPC) contract to build the Levy plants. The amendment still secures PEF's place in line to build the Levy power plant. The amendment secures access to PEF's long-lead items needed to build the Levy nuclear power plant. (TR 1107-1115; PEF BR 4) PEF's witnesses testified that the utility will continue its wetland activities work with the Florida Department of Environmental Protection (DEP) and the United States Army Corps of Engineers (USACE). (TR 563) The witnesses also testified that the Utility will manage, supervise, and support long lead material vendor work, continue AP1000 design support and work, and engage in shared construction program work such as module design and construction initiatives with Westinghouse and Shaw-Stone & Webster (Shaw/Westinghouse).<sup>7</sup> (TR 563-564) Therefore, staff believes that PEF continues to demonstrate its intent to build the Levy power plant.

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<sup>7</sup> Shaw-Stone & Webster and Westinghouse own and control the design of the AP1000 nuclear power plant.

Third, staff believes that the intervenors' interpretation that Section 399.93, F.S., requires all siting, designing, licensing, and construction of nuclear power plants to occur simultaneously in order to recover the cost through the NCRC is a constricted interpretation of the statute that does not achieve the general purpose for which the statute was enacted. The Florida Legislature enacted section 399.93, F.S., to encourage utility investment in nuclear power plants in the state of Florida. The Legislature, in Section 366.93(2), F.S., directed the Commission "within six months after the enactment of said statute, to establish alternative cost recovery mechanisms for costs incurred in the siting, design, licensing, and construction of new or expanded nuclear power plants." The Legislature required that said mechanisms "shall be designed to promote utility investment in nuclear power plants and allow for the recovery in rates of all prudently incurred costs, and shall include, but are not limited to: (a) recovery through the capacity cost recovery clause of any preconstruction costs." Section 366.93(2), F.S. To limit recoverable cost to only those costs associated with the simultaneous activities of siting, licensing, designing, and construction of nuclear power plant, would appear to be a deterrent to nuclear construction. The process of licensing before the NRC is lengthy and staff notes it may at times be imprudent to invest in construction activities too early in the NRC process. Thus, staff believes that the intervenors' interpretation that siting, designing, licensing, and construction activities must occur simultaneously in order to recover prudently incurred costs is an incorrect interpretation.

The intervenors argue that the use of the word "and" means that the statutory interpretation should be conjunctive, thus requiring all phases simultaneously in order to seek advance cost recovery. The guide for statutory construction is legislative intent, which must be determined primarily from the language of the statute. M.D. v. State, 993 So. 2d 1061 (Fla. 1<sup>st</sup> DCA); Hale v. State, 891 So. 2d 517, 521 (Fla. 2004). 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. M.D. v. State, 993 So. 2d 1061 (Fla. 1<sup>st</sup> DCA); Cherry v. State, 959 So. 2d 702, 713 (Fla. 2007). However, courts follow the general rule that the legislature does not intend to enact useless legislation. M.D. v. State, at 1063; Unruh v. State, 669 So. 2d 242, 245 (Fla. 1996). Therefore, courts should avoid interpretations that would render part of a statute meaningless. Id. Another basic rule of statutory construction is that a literal interpretation of the language of a statute need not be given when to do so would lead to unreasonable conclusions or defeat legislative intent. 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).

Several Florida courts have read the conjunctive word "and" to mean the disjunctive word "or" when the construction of the term "and" as "either this or that" promotes the legislative intent in enacting a statute. Winemiller v. Feddish, 568 So. 2d 483, 484-85 (Fla. 4<sup>th</sup> DCA 1990). Here, staff believes that the proper interpretation of the conjunctive word "and" in Section 366.93, F.S., should be the disjunctive word "or," which more closely adheres to the legislative intent. The legislation specifically addresses preconstruction and the type of preconstruction cost that is recoverable under the statute. Section 366.93(2)(a), F.S. In addition the disjunctive "or" was used by the Florida Legislature when it amended Section 403.519, F.S. (the determination of need statute), at the same time it enacted Section 366.93 to include similar language. Section 403.519(4)(e), F.S., provides that "the right of a utility to recover any costs incurred prior to commercial operation," including "costs associated with the siting, design,

licensing, or construction of the plant," shall not be challenged unless the Commission finds after an evidentiary hearing that certain costs were not prudently incurred. Section 403.519(4)(e), F.S. Staff agrees with the Utility that the Florida Legislature intended this same language in Section 366.93, F.S., to be read broadly to include cost recovery for prudently incurred costs for any of the identified activities whether or not other identified nuclear power plant activities were taking place at the same time. (PEF BR 7) With construction, particularly new construction, utilities incur costs to design the power plant, obtain necessary licenses to build the plant, and acquire the site upon which the plant would be built, before any physical construction activities begin. Thus, staff believes that the Commission should interpret the "and" in Section 366.93, F.S. as a disjunctive "or" in order to carry out the legislative intent of the statute.

#### Conclusion

For the reasons stated above, staff recommends that the Commission find that PEF's activities related to Levy Units 1 & 2 qualify as siting, design, licensing, and construction of a nuclear power plant as contemplated by Section 366.93, F.S.

**Issue 3A:** Does the Commission have the authority to require a “risk sharing” mechanism that would provide an incentive for a utility to complete a project within an appropriate, established cost threshold? If so, what action, if any, should the Commission take?

**Recommendation:** Staff recommends that the Commission defer resolution of this issue until the 2011 NCRC. Resolution of this issue impacts both FPL and PEF. FPL has requested a stay of this proceeding in all matters that impact FPL and there are no urgent matters stemming from this issue that require resolution at this time. (Young, Williams, Bennett)

**Position of the Parties**

**PEF:** No. The Commission is governed by the express legislative authority in Section 366.93. Section 366.93 provides the scope of the Commission’s authority which is the development of alternative cost recovery mechanisms for the recovery of all costs prudently incurred for a nuclear power plant. The Commission cannot depart from this scope by rule or order to alter the utility’s ability to recover prudently incurred costs for a nuclear power plant according to an unspecified “risk sharing” mechanism.

**FPL:** No. FPL is entitled to recover *all* its prudently incurred costs, regardless of the ultimate total. Additionally, FPL is required to provide a non-binding cost estimate for nuclear projects, not a binding threshold for use in a “risk sharing” mechanism. The ability to recover all prudent costs and the provision for a nonbinding cost estimate are critical to the legal framework intended to promote nuclear generation. A “risk sharing” mechanism would violate both the letter and intent of the law.

**OPC:** Yes. The Commission has broad authority to insure that the purpose and intent of the rule and statute are met in order to protect customers from imprudence. The statute and rule allow the Commission to keep costs from escalating to unfair dimensions that would require customers to bear all the risk when the existing projects face significant uncertainty. For LNP, the Commission can utilize the specific provisions of the rule implementing the statute to customers.

**PCS PHOSPHATE:** Yes. Pursuant to its obligation to ensure fair, just and reasonable rates, the Commission retains the authority to require PEF to adopt appropriate measures, including risk-sharing mechanisms, to ensure ratepayers are not subjected to unnecessary and unmitigated risks or costs.

**FIPUG:** Yes. The Commission must ensure that customers’ rates are fair, just and reasonable. The Commission must closely monitor nuclear projects which are extraordinarily expensive and may result in costs which unfairly shift totally to ratepayers. The Commission should develop a risk sharing mechanism in a future proceeding.

**SACE:** Yes. The Commission does have such authority in order fulfill its obligation to determine and fix “fair, just and reasonable” rates for Florida ratepayers. Fla. Stat. § 366.06. The Commission also has broad authority under the rule and statute to protect customers from imprudent expenditures. The Commission should develop a “risk-sharing” mechanism which

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would provide a strong incentive to utilities to control costs by shifting some of the risk of these projects from the ratepayers to the utilities.

**Staff Analysis:** Staff notes that resolution of this issue impacts both FPL and PEF. FPL has requested a stay of this proceeding in the First District Court of Appeal. Staff believes there are no urgent matters stemming from this issue that require resolution at this time. Therefore, staff believes deferral of the resolution of this issue until the 2011 NCRC proceeding is appropriate.

**Issue 4:** Should the Commission find that for the year 2009, PEF's accounting and costs oversight controls were reasonable and prudent for the Levy Units 1 & 2 project and the Crystal River Unit 3 Uprate project?

**Recommendation:** Yes, the Commission should find that PEF's accounting and costs oversight controls employed during 2009 for Levy Units 1 & 2 and the Crystal River Unit 3 Uprate projects were reasonable and prudent. (Laux)

**Position of the Parties**

**PEF:** Yes, PEF's accounting and cost oversight controls were reasonable and prudent for the CR3 Uprate project and the LNP. The Company has appropriate, reasonable project accounting controls, project monitoring procedures, disbursement services controls, and regulatory accounting controls. Pursuant to these controls, PEF regularly conducts analyses and reconciliations to ensure that proper cost allocations and contract payments have been made.

**OPC:** With respect to the uprate projects, OPC believes there are indications of inadequate management and contracting oversight controls.

**PCS PHOSPHATE:** PCS Phosphate agrees with and adopts the position of the OPC.

**FIPUG:** No. As to the CR3 Uprate, there are indications of inadequate management including work performed by AVERA that would not have been needed had the project been properly managed.

**SACE:** Agree with OPC.

**Staff Analysis:** This issue addresses the accounting and cost oversight controls employed by PEF during 2009 for LNP and the CR3 Uprate projects.

PEF witness Hardison provided an overview of applicable accounting oversight and cost control programs, standards, policies, and procedures employed by PEF for the LNP during 2009. (TR 570-572) PEF witness Garrett provided similar information concerning the CR3 Uprate and LNP. (TR 57, 65-69)

Witnesses Hardison and Garrett both stated that PEF incorporated internal and external audit reviews as part of the company's accounting oversight and cost control program to ensure that actual project costs are reasonable and incurred in a prudent manner. (TR 70, 572) Witness Garrett stated in his prefiled testimony that "[t]he project accounting and cost oversight controls that ensure the proper accounting treatment for LNP and CR3 Uprate project costs have not changed from 2008. These controls were found to be reasonable and prudent in Docket 090009-EI." (TR 65) Witness Hardison, in her prefiled testimony, identified approximately 47 new or revised corporate procedures that were introduced during 2009 that apply to the LNP. (TR 545-550) According to witness Hardison, the general purpose of these changes were to enhance quality assurance and self assessment in the contract management, procurement and account systems as they relate to PEF's nuclear plant development. (TR 549-551)

PEF witness Doughty, an independent management consultant, provided testimony regarding his overall assessment of the LNP management. Within this assessment, witness Doughty reviewed certain processes that staff considers to be accounting oversight and cost control activities. (TR 185-89, 211-212, 216, 226-28) Witness Doughty did not identify any concerns with the project management controls he reviewed and stated that PEF's activities and decisions regarding the LNP management were reasonable and prudent given the size and complexity of the Levy project. (TR 179, 188, 227)

Staff notes the primary concern identified by intervening parties, within this issue, focused on activities associated with the license development work for the CR3 Uprate project. No similar concerns were identified for the remaining siting, design, planning or construction work that took place during 2009 for the LNP and CR3 Uprate projects.

OPC's witness Jacobs, under cross-examination, stated that he did not offer and had no opinion concerning accounting oversight and cost control programs for the LNP and CR3 Uprate projects. (TR 731, 732) However, in its brief OPC suggested that there are indications of inadequate management and contracting oversight controls. (OPC BR 25) Given this, OPC argues that the Commission should "open a separate docket or direct that a specific issue be included in this cost recovery docket addressing the reasonableness of the costs and the prudence of the company's approach to the overall budgeting and adherence to the budget for the EPU project." (OPC BR 33) OPC's other arguments are focused on activities associated with the CR3 Uprate project license amendment request (LAR) development. (OPC BR 25-33)

FIPUG also took the position that there are indications of inadequate management such as, "work performed by AVERA that would not have been needed had the project been properly managed." (FIPUG BR 6) Similar to OPC, FIPUG focused its arguments on activities associated with the LAR. (FIPUG BR 6-8) In support of its position FIPUG opines, "[h]ad PEF appropriately staffed and supervised the LAR process, it would not have experienced the delay that it did or the additional AREVA costs to prepare the revised LAR." (FIPUG BR 8) FIPUG did not offer a witness addressing its concerns and it did not identify what additional AREVA costs were incurred.

Commission staff witnesses Coston and Carpenter reviewed many of the accounting and cost oversight controls employed by PEF for the LNP and CR3 Uprate projects. (TR 750; EXH 77) Witnesses Coston and Carpenter released a report of their audit review and findings in July 2010. (TR 750) This report was attached to their testimony and filed in the docket on July 20, 2010. As stated in their testimony, "the primary objective of this review was to document project key developments, along with the organization, management, internal controls, and oversight that PEF has in place or plans to employ for these projects." (TR 750)

When addressing the reasonableness of a utility's accounting and cost oversight controls, staff looks to confirm that systems and processes are in place which are consistent with general accounting requirements and standards. In addition, staff's analysis of budgeting and cost reporting/control systems looks to confirm that budgeting and cost information are developed accurately and timely, and that the information is reported in such a way as to be helpful to project managers and senior management.

Based on staff's review of the report filed by witnesses Coston and Carpenter, staff believes that the findings identified in their report are more directly associated with project management controls, or concern management actions whose impacts on project costs may not be known until some time in the future. Similarly, the heart of the concerns identified by OPC and FIPUG are related to management control processes, rather than accounting and cost controls. Staff agrees with the position offered by PEF in which it asserts, "OPC states that for the CR3 Uprate there are indications of inadequate management and contracting oversight controls. However, no evidence was introduced at the hearing regarding this statement and what OPC clearly meant by its position at the hearing was that OPC was concerned with certain CR3 Uprate costs not the accounting and cost oversight controls." (PEF BR 15) Staff notes that the review and recommendation in Issue 5 will address project management, contracting, and oversight control concerns as raised by the parties relating to the CR3 Uprate project.

Staff was not persuaded by OPC's arguments supporting its recommendation that the "Commission should open a separate docket or direct that a specific issue be included in this cost recovery docket addressing the reasonableness of the costs and the prudence of the company's approach to the overall budgeting and adherence to the budget for the EPU project." (OPC BR 25-27) Staff believes a review of the record shows that neither OPC nor other parties identified any specific concerns with PEF's accounting/budgeting systems and processes for either project. No concerns were identified that PEF's cost control documents or reports did not accurately present or report approved budgets for any activity being controlled. In addition, no concerns were identified that budget variances for any particular activity, either due to actual costs incurred or changes in project scope, were not included in budget control reports or reported in a timely manner. Finally, no concerns were raised as to the booking of actual costs or the reporting of them in a timely manner. In staff's view, OPC's arguments centered on changes in estimated total project costs. Staff notes that no party identified any project scope or cost changes that were unneeded or shown to be unreasonable. Therefore, staff does not believe the Commission should open a separate docket or include a specific issue to address this concern. Staff suggests that concerns regarding changes in estimated total project costs are best addressed in the project feasibility analysis issue where changes can be reviewed on an annual basis.

In light of staff's analysis and a preponderance of the evidence in the record, staff believes PEF has demonstrated that the accounting and costs oversight controls employed during 2009 for the LNP and the CR3 Uprate projects were reasonable and prudent

#### Conclusion

Staff recommends that the Commission find that PEF's accounting and costs oversight controls employed during 2009 for Levy Units 1 & 2 and the Crystal River Unit 3 Uprate projects were reasonable and prudent.



**Issue 5:** Should the Commission find that for the year 2009, PEF's project management, contracting, and oversight controls were reasonable and prudent for the Levy Units 1 & 2 project and the Crystal River Unit 3 Uprate project?

**Recommendation:** Staff recommends the Commission find that project management, contracting, and oversight controls employed by PEF during 2009 for the Levy Units 1 & 2 project were reasonable and prudent. Staff recommends that the Commission withhold making a finding concerning the prudence of the project management, contracting, and oversight controls employed by PEF during 2009 for the Crystal River Unit 3 Uprate project, especially as it relates to the LAR development process. A determination concerning the prudence of these controls and oversight activities should be included as an issue in the 2011 Nuclear Cost Recovery proceeding. (Laux)

**Position of the Parties**

**PEF:** Yes, PEF's project management, contracting and oversight controls for 2009 were reasonable and prudent for the CR3 Uprate project and the LNP. These procedures are designed to ensure timely and cost-effective completion of the project. They include regular status meetings, both internally and with its vendors. These project management and oversight controls also include regular risk assessment, evaluation, and management. There are also adequate, reasonable policies regarding contracting procedures.

**OPC:** No. The Commission should put PEF on notice that its decision related to the timing of expenditures relative to the impending LAR is still subject to a prudency review. PEF has yet to demonstrate that the costs of preparing the LAR are prudent and reasonable. The evidence indicates that excessive costs were incurred due to inadequate oversight of the preparation of the LAR.

**PCS PHOSPHATE:** PCS Phosphate agrees with and adopts the position of the OPC.

**FIPUG:** No. As to the CR3 Uprate, PEF has not demonstrated that the project delays, including submission of the LAR, and the costs related to the revised LAR are prudent and reasonable. Excessive and duplicative costs have been incurred due to inadequate oversight of the preparation of the yet to be submitted LAR.

**SACE:** Agree with OPC.

**Staff Analysis:** This issue addresses project management, contracting, and oversight controls employed by PEF during 2009 for the LNP and CR3 Uprate projects. No concerns were identified by the parties concerning the LNP; however, concerns were identified for the CR3 Uprate project. In general, the concerns raised by the parties involved certain activities associated with PEF's management control over the LAR development process. Staff notes, once a nuclear plant is licensed by the NRC, any proposed modification to the plant that may change the original safety analysis (such as an uprate) must be submitted to the NRC for review and approval. This process is called a License Amendment Request, or LAR.

PEF witnesses Hardison, Franke, and Karp provided overviews of the applicable project management, contracting, and oversight controls employed by PEF during 2009 for the LNP and CR3 Uprate projects. (Hardison TR 570-572; Franke TR 328-33; Karp TR 610-615) PEF witness Elnitsky described and provided support concerning management processes and decisions pertaining to contractual matters for the Levy project during the 2009 time period. (TR 891-901) Witness Franke described and provided support concerning management processes and decisions relative to contractual matters for the CR3 Uprate project during 2009. (TR 328-335)

As discussed in witness Franke's testimony:

. . . [PEF] utilizes several policies and procedures to ensure that costs for the CR3 Uprate project are reasonably and prudently incurred. First, the CR3 Uprate is managed in accordance with the Company's Project Management Manual, which is used to manage all capital projects, together with the Company's policies and procedures for Major Capital Projects – Integrated Project Plan (IPP). The IPP is being updated to account for changes in the work plan since the last update including the shift in the R17 outage schedule and the deferral of the LPTs.

We believe that our project management and cost oversight policies and procedures are consistent with best practices for capital project management in the industry and are reasonable and prudent. PEF has employed these project management policies and procedures to successfully implement two phases of the CR3 Uprate project, during two separate plant outages, and completed the work scope necessary for the first two phases of the CR3 Uprate project.

(TR 361-362)

Witness Hardison and Karp provided similar project management information for the LNP, with witness Hardison opining that:

The policies and procedures have been tested by the Company on other capital projects. Any lessons learned from those projects have been incorporated in the current policies and procedures. We believe, therefore, that our project management policies and procedures are consistent with best practices for capital project management in the industry.

(TR 572)

PEF witnesses Doughty and Galloway reviewed project management, contracting, oversight controls and management decision-making processes as part of their overall project management assessment of the LNP. (TR 223-225, 263, 276) These two consultants opined that the project management controls and decision-making processes were reasonable and prudent given the size and complexity of the Levy project. (TR 227, 279)

As noted above, the main concern raised in this issue involved certain activities associated with the LAR development process for the CR3 Uprate project. Staff's review of the

record identified facts concerning PEF's LAR development process, which were not disputed. PEF contracted with AREVA to develop a LAR application package for the Uprate project. (TR 444-445, 829) The contract specified that AREVA was to develop the needed information based on a model used in, what was then, a recently approved uprate request for the Ginna nuclear plant. (TR 399) AREVA submitted a draft of its work in mid 2009. (TR 445) PEF submitted the draft application to an expert panel that had been established to review the application. The panel reviewed AREVA's work and found that the scope and level of detail included in the draft application would not be approved by the NRC, due to the fact that "standards" for LAR applications had evolved since the Ginna submittal. (TR 448-468) The expert panel further found that the work that was performed was incomplete and of poor quality. (TR 448-468) PEF's internal auditors reviewed the LAR process around this same time and found that PEF had not devoted adequate management resources to the process to ensure receiving a quality work product from AREVA. (TR 824-825)

Only PEF and staff witnesses provided testimony on this particular concern. Audit staff witnesses Coston and Carpenter reviewed many of the project management, contracting, and oversight controls employed by PEF during 2009 for the LNP and the CR3 Uprate projects. They released a report of their review and findings in July 2010. (TR 750) This report was attached to their prefiled testimony, filed in this docket on July 20, 2010. As stated in audit staffs' testimony, "[t]he primary objective of this review was to document project key developments, along with the organization, management, internal controls, and oversight that PEF has in place or plans to employ for these projects." (TR 750)

The staff witnesses' report identified no concerns regarding the project management of the LNP in 2009. However, they identified one concern regarding the CR3 Uprate project management, recommending that "the Commission consider whether the additional costs for the LAR restructuring/rewrite and the additional scope by AREVA resulted from inadequate management oversight." (TR 752) Staff notes that no further unresolved findings are identified in witnesses Coston and Carpenter's 2010 report concerning project management, contracting, and oversight controls for the LNP or other aspects of the CR3 Uprate project.

OPC witness Jacobs, under cross-examination, stated that he did not offer and had no opinion concerning project management, contracting, and oversight controls for the LNP and CR3 Uprate projects. (TR 731, 732) However, in its brief OPC suggested that there are indications of inadequate management and contracting oversight of the CR3 Uprate project, and that PEF has yet to demonstrate that the costs of preparing the LAR were reasonable and prudent. (OPC BR 25) OPC argues that through PEF's own admissions, it failed to properly oversee and manage both AREVA and its own staff. (OPC BR 29) OPC suggested that the Commission "disallow \$6 million representing the rough aggregate of the [REDACTED] for the company costs to fix the mess." (OPC BR 31) In the alternative, OPC suggested that the Commission should allow the parties to address the disallowance in next year's docket. (OPC BR 31)

FIPUG, in its brief, offered similar arguments to those offered by OPC. FIPUG suggested that there are indications of inadequate management, and that PEF has not demonstrated that the costs related to the revised LAR were reasonable and prudent. (FIPUG BR

7) FIPUG suggested that had PEF appropriately staffed and supervised the LAR process, it would not have experienced the delay that it did or the additional AREVA costs to prepare the revised LAR. (FIPUG BR 8) FIPUG did not offer any evidence in support of its assertion.

PEF witness Franke addressed audit staffs' finding in his rebuttal testimony. (TR 802-835) Overall, witness Franke did not take issue with the general observations contained in Coston and Carpenter's report concerning the CR3 Uprate LAR development and contract activities. However, witness Franke did not agree with their finding. (TR 827-836) In particular, PEF did not agree that any rewrite work done by AREVA for work that did not meet the standards contained in the original contract has been charged to or will be paid by PEF. (TR 836, 830) In addition, witness Franke stated that no "restructuring" or enhancement work required under Change Orders 23 and 25 (to the original contract) included avoidable work. (TR 827-828, 830) Witness Franke further stated that the work contracted for under these two change orders was necessary to meet evolving NRC expectations for LAR submittals and was needed regardless of the quality of work that was delivered by AREVA under the original contract. (TR 836)

Witness Franke did not take issue with the conclusion in audit staffs' report, which in part stated that PEF had "inadequate management oversight" concerning the development of the CR3 Uprate LAR during 2009. (TR 824) During cross-examination witness Franke stated, "[w]e were disappointed both in AREVA and our own performance to allow them to deliver something that didn't meet the contract." (TR 475) He stated that the conclusion in audit staffs' report is consistent with findings of the PEF expert panel and findings contained in an internal adverse condition report prepared by PEF's own internal auditors. (TR 824-828) Regarding the concern that there potentially was "inadequate management oversight" concerning the development of the CR3 Uprate LAR, witness Franke suggested that the LAR problems do not support a finding of imprudence. Witness Franke stated that the problems that were identified by the expert panel and auditors, coupled with the company's response, actually demonstrated prudent project management.

The subsequent adverse conditions internal audit report regarding the quality of PEF management of vendor work on the draft LAR also reflects prudent project management. Obviously, PEF prefers different conclusions, but PEF understands that independent external and critical internal reviews are necessary to any prudent project management process. Audit Staff agreed PEF's self-assessment process is important and valuable. PEF accepted the criticisms of the draft LAR report and its management, created and implemented an action plan to address them, and corrected them. Further expert panel reviews in November 2009 and January 2010 confirmed that these recommendations were adequately addressed.

This demonstrates PEF's prudent project management, contracting, and oversight controls. PEF reviewed and re-reviewed the LAR work, corrected any work that was not up to par, and ensured a final, sufficient and adequate work product consistent with standards at the time the LAR must be submitted. This is exactly what is supposed to occur when prudent project management and oversight controls are in place, and this is how those project management and oversight

controls are supposed to be implemented to identify and remedy any issues on a timely basis.

(TR 826-827)

In theory, staff agrees with the view presented by PEF witness Franke in the above paragraphs. A project management process that does not allow for or react timely to a known problem would be a strong indication of a poorly designed project management control. If a company was in this position and did not take remedial action, that would be an indication of imprudent management control. However, staff believes that the concern raised by witnesses Coston and Carpenter is related to timing not results.

Audit staff witnesses Coston and Carpenter question what actions PEF could or should have taken before the expert panel's review. It appears, based on the staff witnesses' finding, that PEF did not have a process or resources in place to timely redirect work (due to knowable evolving NRC expectations) that was being performed under contract by PEF's contractor AREVA. A delay in redirecting this work may have resulted in work being completed that provided limited value in satisfying the LAR's changing informational/data requirements, and therefore project costs could have been adversely affected.

Staff acknowledges that the parties had the usual amount of time to investigate PEF's project management, contracting, and oversight controls for the LNP and CR3 Uprate projects. Staff also notes that the concern identified by witnesses Coston and Carpenter is the only item which resulted from an actual investigation of the facts and circumstances surrounding the activity. However, the questions posed by witnesses Coston and Carpenter only became known to the parties late in the hearing preparation process. Staff believes that a finding of management imprudence, on any issue, should not be made lightly or without complete information.

Staff believes that the record is clear that during 2009 PEF did not marshal adequate resources to manage the LAR development process effectively. However, staff does not believe that this fact provides the Commission with a clear basis upon which to make a finding concerning management prudence. Staff believes that questions concerning the LAR development process still remain unanswered, such as, whether it was reasonably clear from the inception of the process, or at any time up until the completion of the expert panel's review of the draft LAR application, that additional resources were warranted? Did PEF engage in any mitigating strategies, and if so when, to augment the actual level of resources that had been devoted to the development of the LAR? Staff believes that the record is also unclear as to whether ratepayers' costs will or have been negatively affected by PEF's management actions concerning the LAR. Staff's review of the record found no instance where parties identified work performed by AREVA (under the original contract or either of the two change orders) that was shown to be unneeded. However, testimony and positions of the parties concerning potential cost impacts due to the LAR range from \$0 to over \$40 million. (TR 476; PEF BR 36; OPC BR 29; FIPUG BR 8; TR 752) Given this divergence of fact and opinion, staff does not believe that the Commission should make any decision concerning the prudence of PEF's management actions associated with the LAR development for CR3 Uprate at this time.

Staff believes that the Commission's decision-making process, and ultimately the ratepayers, will be better served by the Commission finding that allows all parties the opportunity to fully investigate the facts and circumstances surrounding PEF's management of the 2009 LAR development process. A more thorough understanding of the facts and circumstances concerning management actions during 2009 will also afford the Commission a better record to determine if any imprudent actions occurred, and determine the level of impact these actions had upon costs. Staff agrees with the suggestion offered by OPC that the Commission should put the parties on notice that concerns with PEF's management of the LAR development process and determination of management prudence will be identified as an issue in the 2011 Nuclear Cost Recovery proceeding.

#### Conclusion

Staff recommends that the Commission find that project management, contracting, and oversight controls employed by PEF during 2009 for the Levy Units 1 & 2 project were reasonable and prudent. Staff recommends that the Commission withhold making a finding concerning the prudence of the project management, contracting, and oversight controls employed by PEF during 2009 for the Crystal River Unit 3 Uprate project, especially as it relates to the LAR development process. A determination concerning the prudence of these controls and oversight activities should be included as an issue in the 2011 Nuclear Cost Recovery proceeding.

**Issue 6:** Should the Commission approve what PEF has submitted as its annual detailed analysis of the long-term feasibility of completing the Levy Units 1 & 2 project, as provided for in Rule 25-6.0423, F.A.C? If not, what action, if any, should the Commission take?

**Recommendation:** Yes. PEF presented evidence that it examined technical, regulatory, and economic factors impacting the long-term feasibility of the Levy Units 1 & 2 project which demonstrate that the project remains feasible. In addition, PEF provided the updated fuel and environmental forecasts, as well as an updated project cost estimate requested by the Commission. (Garl)

**Position of the Parties**

**PEF:** Yes, the Commission should approve what PEF submitted because PEF's detailed feasibility analyses demonstrate the long-term feasibility of completing the LNP. If the Commission does not approve PEF's submission based on perceived technical deficiencies, it should identify the deficiencies and permit PEF to re-file with additional information. If the Commission finds the LNP is not feasible on substantive ground, this would preclude PEF from completing the LNP and the Commission should award PEF its prudent 2009, reasonable 2010, and reasonable project exit costs.

**OPC:** No. Due to the tenuous nature of the LNP project, the Commission should require additional analysis of the feasibility of the overall project in 2011 based on concerns raised by all witnesses in this docket.

**PCS PHOSPHATE:** No. The circumstances presented by the LNP project delay announced in this docket mandate a broader examination of the LNP project. PEF's attempt to address those broader concerns acknowledges the importance of such an evaluation, but its assessment was inadequate and failed to address key concerns. These are discussed in Issue 7.

**FIPUG:** No. Due to the tenuous nature of the LNP, the Commission should find the project is not feasible at this time, especially since PEF has been unable to secure any joint ownership agreement and ratepayers must fund the entire project. The Commission should not authorize further advance recovery for this project. It should also devise a risk sharing mechanism so that the burden of such projects does not fall entirely on ratepayers.

**SACE:** No. PEF has failed to complete a realistic feasibility assessment that properly takes into account important changes in key variables which have adversely affected the long-term feasibility of the LNP, including but not limited to: declining natural gas costs, declining estimates of the cost of carbon; declining demand; ongoing schedule delays; increased total project costs; and the true impacts of efficiency and renewables. As a result, the Commission should deny cost recovery for PEF's 2010 and 2011 costs.

**Staff Analysis:** This issue addresses review and approval of PEF's detailed long-term feasibility analysis of continuing construction and completing the LNP as required by Rule 25-6.0423, F.A.C., and Order No. PSC-08-0518-FOF-EI.

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

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366.93 and 403.519(4), F.S., during the 2006 legislative session. Section 366.93(2), F.S., requires the Commission to establish, by rule, alternative cost recovery mechanisms for the recovery of costs incurred in the siting, design, licensing, and construction of a nuclear power plant. The 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-08-0518-FOF-EI, at page 24, the Commission provided specific guidance regarding the requirements necessary for PEF to satisfy Rule 25-6.0423(5)(c)5, F.A.C. The Order reads as follows:

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.

Additionally, at page 21, the Order contains the following language lending insight to the Commission's intent regarding the long-term feasibility of PEF's LNP:

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.

Addressing necessary delays to the project schedule, PEF considered three primary scenarios for analysis in determining its course of action: (1) moving forward as quickly as possible, (2) project cancellation, and (3) continuation with a partial suspension. (Lyash TR 1033) In evaluating the three choices, PEF considered a number of quantitative and qualitative factors. Among the quantitative factors that the Company examined were project costs and cost-effectiveness using sensitivities addressing updated fuel and environmental price forecasts. Qualitative factors considered included regulatory feasibility, technical feasibility, funding feasibility, and joint ownership. (EXH 30, p. 5)

PEF witness Elnitsky discussed cost comparison of the three options:

For each of the three options, the Company considered the costs to be incurred over the three year period from 2010 through 2012. PEF chose that time frame because 2012 is the current estimate of when the COL for the LNP is to be issued and it also provides a reasonable assessment of the near term costs of each option.

(TR 866)



Due to regulatory determinations beyond PEF's control, primarily delays in the NRC review process, the Unit 1 in-service date was initially assumed to be delayed a minimum of 36 months. (Lyash TR 1084) Staff viewed the move-forward-as-quickly-as-possible option, with a 2019 in-service date (ISD) for Unit 1, as a reasonable starting point for comparison with other options.

PEF's examination removed the move-forward-as-quickly-as-possible option from further consideration for five reasons. First, a 36-month schedule shift did not provide "float" time for potential future schedule impacts. Second, PEF believed investment of near-term capital would not materially change the in-service date. In addition, the infusion of near-term capital would drive up customer bills on top of increases imposed by new demand-side management goals. Fourth, near-term investment of substantial capital before receiving the COL would put the Company at greater risk. Finally, this option would deny additional time for greater certainty about the economy and state and federal environmental policies. (Lyash TR 1084-1086) When the move-ahead option with a 2019 in-service date (ISD) is compared to PEF's proposed 2021 ISD, the cumulative present value revenue requirement (CPVRR) analysis reflects minimal change. However, the near term (2010-2012) rate impact changed dramatically as shown below:

Estimated Average Customer Monthly Bill Impact

Year	2019 ISD	2021 ISD
2010	\$6.78	\$6.78
2011	\$11.01	\$2.17
2012	\$20.39	\$3.99

(EXH 28)

Having eliminated the move-forward-as-quickly-as-possible course of action, PEF began studying the remaining two choices: project cancellation and partial suspension of activity until receipt of the COL.

PEF assessed the cancellation option as a less than an optimum choice for both the Company and its customers. Were the LNP to be terminated, the benefits of new nuclear generation would likely be lost for the foreseeable future. The other parties to the EPC contract would move on to other utilities pursuing development of AP1000 units in the United States and around the world. Likewise, the limited resources of the NRC would be committed to review of active nuclear projects. Cancellation of the LNP would deny PEF and its customers the long-term benefits of fuel portfolio diversity, reduced reliance on fossil fuels for energy production, carbon free energy generation, and base load capacity with a relatively low cost fuel source. (Lyash TR 1086-1088) Witness Lyash summarized, "The long-term benefit is a billion dollars, plus your fuel savings, plus any carbon costs that might accumulate on top of that." (TR 1154)

Also arguing against project cancellation was PEF's negotiation of the amendment to the EPC contract. Audit staff concluded that the Company was able to negotiate a favorable amendment with limited fee impact, as well as mitigate risk to PEF and its customers. (EXH 77 p. 9) PEF agreed with the audit staff conclusion that PEF was able to obtain a favorable amendment that preserved the contractual benefits of the EPC agreement with limited fee impact to PEF and its customers as well as mitigating risk. (Lyash TR 1124-1125)

In reviewing PEF's management process and procedures used to reach a decision, the audit staff concluded that, "given the uncertainties facing the company, keeping the project progressing without further substantial investment is a reasonable approach at this point in time." (Staff Coston and Carpenter TR 751)

Having decided that the best course of action was to partially suspend activity until the NRC issues the COL, PEF then developed a long-term feasibility analysis based upon this new approach.

#### Economic Feasibility

Staff believes that the forecasts, cost estimates, and analyses are necessary filing requirements to assess PEF's 2010 LNP feasibility analysis. In addition, staff reviewed regulatory and technical aspects of the project. These elements provide a holistic perspective for staff's recommendation regarding the approval or denial of PEF's detailed long-term feasibility analysis.

#### Project Cost-Effectiveness

PEF updated the LNP total project cost estimate from the need determination estimate of \$17.2 billion to \$22.5 billion. (Elnitsky TR 977) Two years ago the total project costs, including AFUDC, were approximately \$17.2 billion, but that was for units scheduled for operation in 2016 and 2017. The new total LNP cost, which increased by about \$5 billion, including AFUDC, is for nuclear units coming in service in 2021 and 2022. According to PEF witness Lyash, the reason for the increase in the total project cost from the need determination proceeding to this proceeding was the change in the scheduled in-service dates of the units. (TR 1201-02; Ex. 218, pp. 206-08)

PEF witness Elnitsky explained the cost increase as a function of time shift:

... the primary change in total project cost is a result of escalation. The scope of the project has not changed, nor have there been other changes that cause the base cost of the project to go up.

Fundamentally, what has happened is the escalation factors that are part of the base contract around long-lead material and commodities, as you run those out over the schedule shift of the project that is the primary contributor to the cost. So one way to think about it is when you pick up a project of this size and you move it in time, the primary driver of the cost change is escalation factors.

(Elnitsky, TR 1006)

Another example of the cost estimate increase is the material and labor cost exceeding original estimates, a portion of which is also attributable to the change of the in-service date. (Elnitsky, TR 943-944) This is due largely to the effects of cost escalation resulting from the shifts in the in-service dates for the first unit to 2021. (Elnitsky, TR 808)

The updated analysis produced results that were more favorable to the LNP, even though the updated analysis assumed a higher project cost and later in-service date than in the need case. (Lyash TR 1079) In response to a question about the credibility of the total cost increasing while the updated CPVRR results were more favorable, PEF witness Lyash provided the following explanation:

No, I don't think it's inconsistent that the project moved out in time and escalated in cost and yet still looks similarly attractive. And the reason is because the project did not increase significantly in capital cost in terms of the defined scope. There have not been more feet of pipe, more yards of concrete, less productivity, more equipment priced into it. So the price has not increased in that manner.

It has primarily increased because as you move any project out in time and you apply escalation to it, the type of escalation we typically see in the economy, its price rises, but so does the price of all the alternatives. So does the price of fuel, so do the environmental costs, so its relative position – while it is [*sic*] absolute dollar value may change, its relative position doesn't change.

(TR 1201-1202)

PEF updated its CPVRR analysis comparing the LNP to comparably-sized natural gas plants under a variety of scenarios and sensitivities. PEF compared the updated analysis to the same analysis performed for the need determination when PEF's projected Return on Equity (ROE) was at 11.25 percent. At that ROE, PEF's weighted average cost of capital was 8.1 percent. The table below illustrates the comparative CPVRR data presented at the Need Determination:

Summary of CPVRR Results from the Levy Need Determination										
Levy Need Study CPVRR Economic Results Summary Table (\$2007)										
Fuel Sensitivities				CapEx Sensitivities						
Base Capital Reference Date	Low Fuel Reference	Mid Fuel Reference	High Fuel Reference	Mid Fuel Reference Case	LNP CapEx -5%	Mid Fuel Reference	LNP CapEx 5%	LNP CapEx 15%	LNP CapEx 25%	
<b>Levy Need - 100% Ownership, 2016 COD Levy Case Versus All Gas CPVRR \$Million, (\$2007)</b>										
No CO <sub>2</sub>	(\$6,416)	(\$2,888)	\$2,635	No CO <sub>2</sub>	(\$2,365)	(\$2,888)	(\$3,400)	(\$4,434)	(\$5,469)	
EPA WM CO <sub>2</sub>	(\$3,834)	(\$343)	\$5,212	EPA WM CO <sub>2</sub>	\$109	(\$343)	(\$926)	(\$1,960)	(\$2,996)	
CRA WM CO <sub>2</sub>	(\$2,684)	\$793	\$6,318	CRA WM CO <sub>2</sub>	\$1,207	\$793	\$172	(\$862)	(\$1,897)	
EPRI Full CO <sub>2</sub>	\$85	\$3,614	\$9,077	EPRI Full CO <sub>2</sub>	\$3,975	\$3,614	\$2,940	\$1,906	\$871	
EPRI Ltd CO <sub>2</sub>	\$2,930	\$6,380	\$11,892	EPRI Ltd CO <sub>2</sub>	\$6,674	\$6,380	\$5,640	\$4,605	\$3,571	
<b>Levy Need - 80% Ownership, 2016 COD Levy Case Versus All Gas CPVRR \$Million, (\$2007)</b>										
No CO <sub>2</sub>	(\$5,568)	(\$2,725)	\$1,732	No CO <sub>2</sub>	(\$2,284)	(\$2,725)	(\$3,154)	(\$4,023)	(\$4,892)	
EPA WM CO <sub>2</sub>	(\$3,530)	(\$733)	\$3,756	EPA WM CO <sub>2</sub>	(\$364)	(\$733)	(\$1,234)	(\$2,103)	(\$2,972)	
CRA WM CO <sub>2</sub>	(\$2,613)	\$171	\$4,631	CRA WM CO <sub>2</sub>	\$502	\$171	(\$367)	(\$1,236)	(\$2,106)	
EPRI Full CO <sub>2</sub>	(\$448)	\$2,403	\$6,790	EPRI Full CO <sub>2</sub>	\$2,681	\$2,403	\$1,812	\$942	\$73	
EPRI Ltd CO <sub>2</sub>	\$1,799	\$4,594	\$9,016	EPRI Ltd CO <sub>2</sub>	\$4,605	\$4,594	\$3,936	\$3,067	\$2,197	
<b>Levy Need - 50% Ownership, 2016 COD Levy Case Versus All Gas CPVRR \$Million, (\$2007)</b>										
No CO <sub>2</sub>	(\$4,017)	(\$2,246)	\$523							
EPA WM CO <sub>2</sub>	(\$2,766)	(\$363)	\$1,783							
CRA WM CO <sub>2</sub>	(\$2,250)	(\$409)	\$2,317							
EPRI Full CO <sub>2</sub>	(\$1,033)	\$908	\$3,685							
EPRI Ltd CO <sub>2</sub>	\$339	\$2,220	\$5,199							

(EXH 27, p. 7)

In PEF's 2010 rate case, the Commission reset PEF's ROE to 10.50 percent, thereby changing PEF's current weighted average cost of capital to 6.75 percent.<sup>8</sup> The following table displays the CPVRR analysis results at the new rate, which shows the LNP even more cost-effective:

PEF Summary CPVRR Review for 2010 NCRC Filing												
April '10 NCRC CPVRR Economic Results Summary Table (\$2010)												
Fuel Sensitivities						CapEx Sensitivities						
Base Case	Low Fuel	Low BW	Mid Fuel	High BW	High Fuel	Reference Case	LNP CapEx	LNP CapEx	Mid Fuel	LNP CapEx	LNP CapEx	LNP CapEx
Reference Case	Reference	Fuel Sens	Reference	Fuel Sens	Reference	Reference Case	-5%	-5%	Reference	5%	15%	25%
<b>NCRC APR '10: 100% Ownership, 2021 COD Levy Case Versus All Gas CPVRR \$Million, 6.75% Discount Rate</b>												
No CO <sub>2</sub>	(\$11,170)	(\$3,545)	\$975	\$5,069	\$19,776	No CO <sub>2</sub>	\$2,520	\$1,490	\$975	\$460	(\$570)	(\$1,500)
EPA WM CO <sub>2</sub>	(\$7,437)	\$865	\$4,792	\$8,908	\$23,614	EPA WM CO <sub>2</sub>	\$6,337	\$5,307	\$4,792	\$4,277	\$3,247	\$2,216
CRA WM CO <sub>2</sub>	(\$5,145)	\$3,309	\$7,201	\$11,330	\$26,001	CRA WM CO <sub>2</sub>	\$8,746	\$7,716	\$7,201	\$6,686	\$5,656	\$4,626
EPRI Full CO <sub>2</sub>	(\$2,843)	\$5,796	\$9,669	\$13,817	\$28,450	EPRI Full CO <sub>2</sub>	\$11,214	\$10,184	\$9,669	\$9,154	\$8,124	\$7,094
EPRI Ltd CO <sub>2</sub>	\$2,110	\$10,935	\$14,748	\$18,867	\$33,531	EPRI Ltd CO <sub>2</sub>	\$16,293	\$15,263	\$14,748	\$14,234	\$13,204	\$12,174
<b>NCRC APR '10: 80% Ownership, 2021 COD Levy Case Versus All Gas CPVRR \$Million, 6.75% Discount Rate</b>												
No CO <sub>2</sub>	(\$9,166)	(\$2,878)	\$628	\$3,906	\$15,780	No CO <sub>2</sub>	\$1,842	\$1,033	\$628	\$224	(\$586)	(\$1,395)
EPA WM CO <sub>2</sub>	(\$5,217)	\$511	\$3,601	\$6,884	\$18,782	EPA WM CO <sub>2</sub>	\$4,816	\$4,006	\$3,601	\$3,186	\$2,367	\$1,578
CRA WM CO <sub>2</sub>	(\$4,407)	\$2,393	\$5,466	\$8,776	\$20,647	CRA WM CO <sub>2</sub>	\$6,680	\$5,871	\$5,466	\$5,062	\$4,252	\$3,443
EPRI Full CO <sub>2</sub>	(\$2,574)	\$4,328	\$7,398	\$10,735	\$22,564	EPRI Full CO <sub>2</sub>	\$8,612	\$7,803	\$7,398	\$6,993	\$6,184	\$5,374
EPRI Ltd CO <sub>2</sub>	\$1,343	\$8,339	\$11,376	\$14,698	\$26,484	EPRI Ltd CO <sub>2</sub>	\$12,590	\$11,781	\$11,376	\$10,972	\$10,162	\$9,353
<b>NCRC APR '10: 50% Ownership, 2021 COD Levy Case Versus All Gas CPVRR \$Million, 6.75% Discount Rate</b>												
No CO <sub>2</sub>	(\$6,496)	(\$2,461)	(\$213)	\$1,680	\$9,494	No CO <sub>2</sub>	\$557	\$44	(\$213)	(\$469)	(\$982)	(\$1,495)
EPA WM CO <sub>2</sub>	(\$4,801)	(\$371)	\$1,633	\$3,738	\$11,354	EPA WM CO <sub>2</sub>	\$2,402	\$1,689	\$1,633	\$1,376	\$863	\$350
CRA WM CO <sub>2</sub>	(\$3,441)	\$813	\$2,801	\$4,900	\$12,510	CRA WM CO <sub>2</sub>	\$3,571	\$3,058	\$2,801	\$2,544	\$2,031	\$1,518
EPRI Full CO <sub>2</sub>	(\$2,250)	\$2,080	\$4,036	\$6,160	\$13,693	EPRI Full CO <sub>2</sub>	\$4,805	\$4,292	\$4,036	\$3,799	\$3,266	\$2,753
EPRI Ltd CO <sub>2</sub>	\$235	\$4,678	\$6,605	\$8,709	\$16,129	EPRI Ltd CO <sub>2</sub>	\$7,375	\$6,862	\$6,605	\$6,349	\$5,836	\$5,323

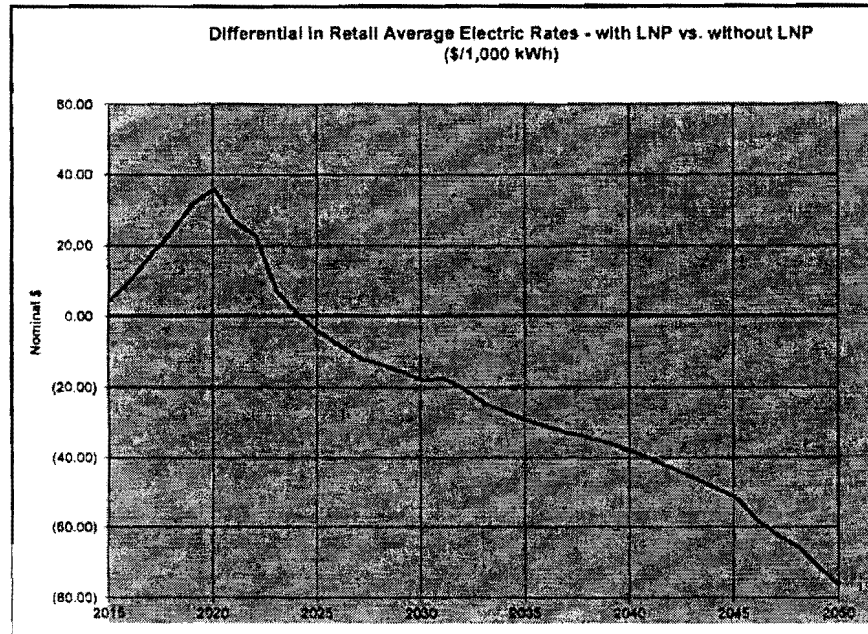
(EXH 27, p. 8)

PEF was questioned about more scenarios and sensitivities showing that the natural gas alternative was a more cost-effective course (i.e., had negative numbers) than in the CPVRR analysis done for the need determination. PEF noted that such an argument failed to recognize that the updated CPVRR analysis included more scenarios and sensitivities. (Lyash TR 1200-1201) On a percentage basis, the updated CPVRR produced results that were more favorable to the LNP, even though the updated CPVRR assumed a higher project cost and later in-service dates for the LNP than the need case. (Lyash TR 1079) Staff, however, believes this is an incomplete method of analyzing the CPVRR results. Such an analysis does not change the fact that the cost-effectiveness of the LNP project is still driven by the same two primary factors as in the original need determination proceeding: the differential in fuel prices and the cost of carbon regulation. As shown above, only scenarios with the low fuel reference show the LNP to not be cost-effective. Staff believes 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. Natural gas prices have historically been volatile and subject to sharp increases in price. While the "No CO<sub>2</sub>" scenarios represent the present day status (i.e. no CO<sub>2</sub> regulations), the general consensus

<sup>8</sup> Order No. PSC-10-0398-S-EI, issued June 18, 2010, in Docket 090079-EI, In re: Petition for increase in rates by Progress Energy Florida, Inc.

is that Congress will enact some form of carbon regulation in the near future. As shown above, any cost of carbon legislation improves the overall cost-effectiveness of the LNP project.

PEF also provided its projection of comparative costs between a resource plan including the LNP and the plan without the LNP. The chart below demonstrates that fuel savings from operation of Levy units 1 and 2 is projected to offset the initial increase in the retail average electric rate within 4 years of the in-service dates. After 2025, savings will continue increasing in comparison to a generation plan from comparably-sized natural gas plants.



(EXH 76, p. 179)

### Updated Fuel Forecasts

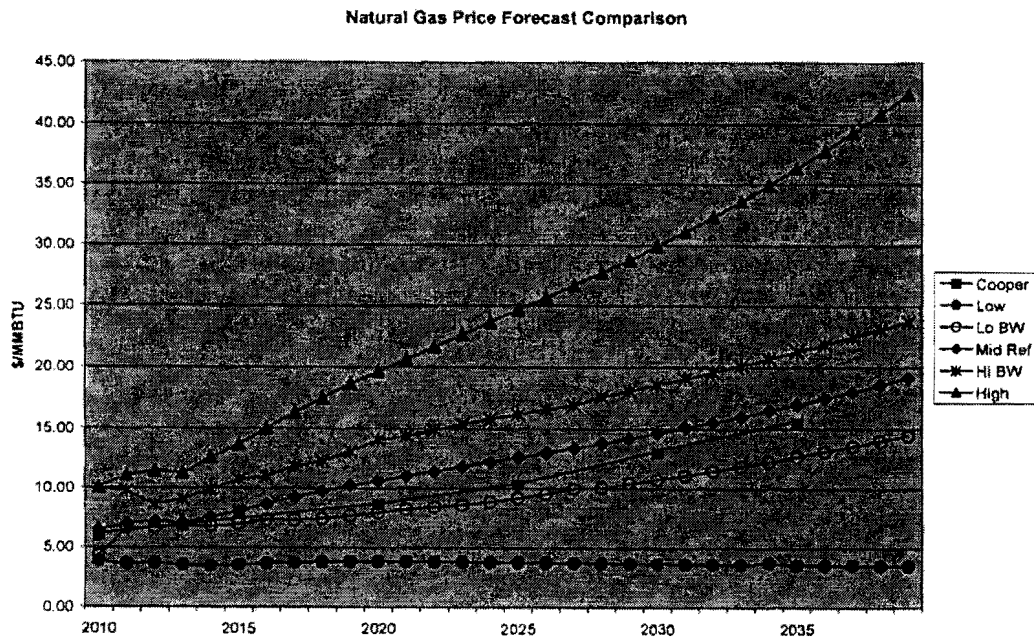
In preparing the updated CPVRR analysis, PEF used the same approach to prepare a fuel forecast update for this docket that was used to prepare the cost-effectiveness analysis in the need determination proceeding and the last two NCRC proceedings. Witness Lyash included PEF's updated fuel forecasts in an exhibit to his direct testimony. (EXH 27, pp. 13-17) PEF again relied upon recent long-term fuel projections from widely accepted industry sources, PIRA Energy Group and Global Insight, to provide the basic price forecast. The approach established PEF's basic fossil fuel forecasts as its medium price forecast. For residual oil, natural gas, and coal, PEF developed high and low price forecasts based on the 90<sup>th</sup> percentile above and below the basic, mid-reference fuel price forecast.<sup>9</sup> The high and low price forecasts specified a range that allows for possible price outcomes and the uncertainty of price forecasts in the economic analysis. However, while the previously filed analyses used low, mid, and high fuel forecasts, this year's update used two more fuel forecasts in addition to the low, mid, and high cases. The additional forecasts are referred to as the low bandwidth and high bandwidth. (Lyash TR 1077-

<sup>9</sup> Attachment B, Item 7

1078) The new forecast scenarios fell between the mid case and the low and high case, respectively.

SACE witness Cooper testified that natural gas prices are declining and PEF's fuel forecast does not reflect reality. (TR 636-638) He offers data from the Energy Information Administration showing lower natural gas prices than what PEF used. (EXH 39) PEF witness Lyash's rebuttal testimony noted that witness Cooper's testimony about fuel forecasting is similar to what witness Cooper offered last year, which was rejected by the Commission. As mentioned above, PEF used widely accepted industry sources for fuel cost forecasting, as was accepted by the Commission last year. In addition, while witness Cooper relies on a single price forecast, PEF's feasibility assessment is based on several sources and a range of fuel cost scenarios. (TR 1138-1139) Other intervenors offered no alternative fuel forecasts.

Staff analyzed the range of projected fuel prices and plotted the natural gas prices used by PEF and SACE witness Cooper. Since SACE witness Cooper's exhibit was not accompanied by a data table, staff approximated values from witness Cooper's Exhibit 39 graph. PEF's five natural gas pricing forecasts were plotted from PEF witness Lyash's Exhibit 27, pages 4-8. As the resulting graph clearly displays, witness Cooper's price forecast falls below PEF's Mid-Reference fuel price that Cooper referred to in his testimony and his exhibit. However, SACE witness Cooper's reliance on only one price reference led him to overlook two PEF price scenarios that fall below the price forecast Cooper used. PEF used these two price scenarios, Lo and Lo Bandwidth, as well as the Mid-Reference, Hi Bandwidth, and Hi price scenarios in its updated CPVRR calculations. The natural gas price forecast graph is shown below:



(EXH 27, pp. 4-8; EXH 39)

Staff believes that PEF has considered a sufficient range of natural gas price forecasts that can realistically be expected to include the actual prices as the years pass. Witness Cooper's forecast actually validates what staff considers the most likely fuel price forecast, PEF's Mid-Reference Forecast, because the projected prices are relatively close. Staff, therefore, concludes that PEF's updated fuel forecasts are reasonable for purposes of evaluating its LNP costs and benefits.

### Environmental Forecasts

Order No. PSC-08-0518-FOF-EI from the Need Determination, at page 15, contains the following language lending insight to the Commission's intent regarding the long-term feasibility of PEF's LNP:

We also find that the CO<sub>2</sub> [carbon dioxide] price projections used in the cost-effective analysis represent a reasonable range of forecasts based upon CO<sub>2</sub> compliance cost studies available to PEF at the time that the cost-effective analysis was undertaken. Since the price forecasts are based upon on-going federal CO<sub>2</sub> legislation, we find it appropriate that PEF provide updated cost information as part of its annual feasibility report.

PEF used the same approach to prepare an environmental forecast update for this docket that was used to prepare the cost-effectiveness analysis in the need determination proceeding and the last two NCRC proceedings. Witness Lyash included PEF's updated emissions cost estimates in an exhibit to his direct testimony. (EXH 27, p. 11) PEF used four CO<sub>2</sub> compliance cost scenarios in its cost-effectiveness analysis and a scenario with no CO<sub>2</sub> costs, as in past analyses.

As was the case with fuel cost forecasts above, SACE witness Cooper used an alternate projection of CO<sub>2</sub> costs from the Environmental Protection Agency. (TR 638) Meanwhile, witness Lyash observed that witness Cooper again isolated on a single source estimate. In contrast, PEF used several cost estimate scenarios, including zero cost, in its feasibility assessment. (TR 1139) In PEF's updated CPVRR analysis, 50 percent of the zero-cost CO<sub>2</sub> scenarios showed the LNP was more cost-effective than comparably-sized gas plants. (EXH 27, p. 8) In this worst-case scenario, the LNP still compared nearly equivalent to a gas plant resource plan. Other intervenors offered no alternative environmental forecasts.

Staff observes that there is continued uncertainty regarding the future legislation of CO<sub>2</sub> as well as potential issues regarding the timing of filing requirements and on-going legislation. While there is currently no legislation placing a cost on CO<sub>2</sub>, staff observes that the consensus is Congressional action will place a value on this greenhouse gas in the near future. Staff believes that using a range of CO<sub>2</sub> forecasts in its analysis of feasibility provides PEF with a reasonable view of what the future may hold, as compared to the one-dimensional forecast offered by SACE witness Cooper.

Staff believes PEF provided an acceptable updated cost estimate with additional support of an updated CPVRR analysis. Together with PEF's updated fuel and environmental forecasts, as well as continued consideration of joint ownership, discussed below, PEF met the

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Commission's request for current information. Staff believes that PEF presented a convincing case in showing the LNP is economically feasible.

#### Regulatory Feasibility

SACE witness Gunderson challenged the regulatory feasibility of the LNP, citing delays in the process of obtaining a COL and geotechnical issues at the Levy site. (TR 687-696) PEF rebutted that the NRC is continuing its review of the AP1000 design and the LNP COL, and that witness Gunderson omitted the fact that State regulatory approval of the LNP came from the Governor and Cabinet sitting as the Siting Board on August 11, 2009. (Lyash TR 883, 904-907, 1056, 1133-1136) In addition, the NRC issued the Draft Environmental Impact Statement on August 6, 2010. (Elnitsky TR 922)

PEF acknowledged existence of some regulatory uncertainty that could impact the project. There continues to be discussions at the state and federal level concerning required levels of power production from renewable resources and power plant emission regulations, like those proposed to potentially address greenhouse gases such as carbon dioxide. While enactment of legislation or regulation in these areas could have an impact on the LNP, of most concern to PEF is the nuclear cost recovery statute. Since nearly unanimous support of the 2006 legislation creating nuclear cost recovery provisions, during the course of the recession, the statute has more recently come under attack by some legislators. (Lyash TR 1056-1064) PEF witness Lyash stated:

If that support did materialize for ending or altering the alternative cost recovery provisions of the nuclear cost recovery statute then the LNP likely would become infeasible. That does not appear to be the case. Florida executive and legislative energy policies behind the adoption of the nuclear cost recovery statute have not fundamentally changed. There still appears to be general legislative and state executive support for the development of nuclear generation in the state.

(TR 1076)

The current absence of legislation to alter or end the nuclear cost recovery provisions, and lack of any indications that NRC filings will be denied, lead staff to believe the LNP still retains regulatory feasibility.

#### Technical Feasibility

PEF asserted that the AP1000 design it intends to employ in the LNP is a viable nuclear technology. The NRC previously approved the AP1000 basic design and is continuing its review toward approving the revision of the design. (Lyash TR 1072) SACE witness Gunderson challenges the technical feasibility of the AP1000. (TR 687-696) However, his views are unsupported, and are substantially the same as those dismissed by the Commission in the 2009 proceeding as unsupported. (TR 1131-1132, 1138)

Many of the questions the NRC had regarding the Levy site that were discussed during the nuclear cost recovery proceeding last year are being resolved. Following a NRC audit in late



September 2009, the NRC staff indicated that new results from field investigations appear to resolve many of their previous geotechnical questions related to karst<sup>10</sup> and the foundation support at the site. The NRC requests for additional information following that site audit support the NRC staff comments at the audit. The karst-related and other geotechnical site risks are receding. (Lyash TR 1073)

Given that the LNP schedule would be delayed when the NRC did not approve PEF's request for a Limited Work Authorization (LWA), PEF reviewed other potential risks it might face, such as economic conditions, load growth impacts, capital markets, and state and federal energy and environmental policies and regulations. (Lyash TR 1040) The additional time necessary for several NRC review activities leading to issuance of the COL resulted in PEF calculating the minimum schedule shift of 36 months. (Lyash TR 1039) After a detailed review of these factors, PEF came to the decision that a 36-month delay would not provide enough "float" time should other uncertainties further jeopardize the schedule. PEF, therefore, adopted a 60-month shift as the best schedule for its customers and the Company, thus giving LNP Unit 1 an in-service date of 2021. (Lyash TR 1180)

NRC's previous certification of the AP1000 design, its continuing review of the design revision PEF will use, and resolution of geotechnical concerns at the Levy site persuade staff that the LNP is technically feasible.

#### Funding Feasibility

In addition to elements of economic feasibility pursuant to Order No. PSC-08-0518-FOF-EI, staff believes availability of funding for the project should also be considered. While PEF's credit rating was downgraded one notch by Moody's Investor Services since the last NCRC proceeding, not all rating agencies took action regarding PEF's credit rating, and the Company continues to demonstrate it has access to capital on reasonable terms. PEF sees that the consistent theme among investment analysts is that the current negative outlook by some is short term, primarily prompted by the economic downturn in Florida. As Florida's economy recovers, economic risk should be reduced. (Lyash TR 1048-1049)

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

#### Joint Ownership

PEF continued exploring joint ownership with a number of companies. In addition, its cost analysis included consideration of three levels of ownership by PEF: 100 percent, 80 percent, and 50 percent. (Lyash TR 1150-1151; EXH 27, pp. 7-9) Thus far, however, none of those who continue to express interest in joint ownership have committed to such an agreement. (Lyash TR 1173)

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<sup>10</sup> Karst is a term geologists use to describe a landscape found on carbonate rocks, such as the limestone of the Florida peninsula. Karst contains such features as caves, sinkholes, large springs, and sinking streams.

PCS Phosphate claimed that expected joint ownership participation has been lost. (PCS BR 1) However, when a Commissioner questioned PEF witness Lyash regarding the contention that joint ownership has been lost, he replied, “. . . we have and we continue to pursue that, and those discussions are active.” (TR 1150)

OPC argued that PEF conceded that joint ownership is critical to the viability of the LNP, citing PEF witness Lyash's testimony that the current level of joint ownership activity has lessened. (OPC BR 14) OPC's argument, however, was contradicted by the record. In response to a question from a Commissioner about whether joint ownership was a significant risk issue, witness Lyash responded:

I don't consider joint ownership a risk issue. I do consider it a positive step that we can take to mitigate other risks and to mitigate customer price impact. It is a significant part of our discussions as we go forward. It will not in and of itself cause a specific decision on the project, but we will consider it at every step of the path.

(TR 1151)

Staff also believes OPC has taken PEF witness Lyash's testimony out of context. In response to an OPC question about discussions with potential joint owners being “materially less active,” witness Lyash responded:

I'm not sure what you mean by materially less active. I would say that they are consistent with where we are at in the project schedule revision and negotiation phase. There is no lessening of interest, there is no lessening of exchange of relevant information, but the level of activity is somewhat less because a lower level of activity is warranted.

(TR 1182)

FIPUG similarly argued that lack of any joint ownership agreement is the primary reason the Commission should find the LNP infeasible. (FIPUG BR 8) FIPUG, joined by PCS Phosphate, also cited the 2009 and 2010 Ten-Year Site Plans from Seminole Electric Cooperative as evidence that at least one potential joint owner had concerns with the uncertain status of the LNP and moved on to other options. The Seminole 2009 Ten-Year Site Plan projected joint ownership in the LNP, while the 2010 plan replaced the LNP with 4 combustion turbines. (FIPUG BR 17; PCS Phosphate BR 5) PEF witness Lyash explained that these 4 units are peaking units that operate only about 10 percent of the time when demand is at its peak. The combustion turbines, therefore, cannot be considered replacements for the base load capability of a nuclear unit. In addition, Seminole's 2010 Ten-Year Site Plan did not project beyond 2020, so Seminole's thinking about the revised LNP in-service date of 2021 was not shown. (TR 1167-1168)

As discussed above, even at 100 percent ownership, the LNP is estimated to be cost-effective under a majority of the sensitivities. In contrast to OPC's and FIPUG's arguments, staff was persuaded that lack of joint ownership of the two Levy units will not, in and of itself,

make the LNP infeasible. Staff agrees with PEF witness Lyash that joint ownership does not affect overall cost-effectiveness but may have a significant impact on rates for PEF customers. PEF should continue to weigh the short-term benefits of lower rates for its customers against the long-term benefits of significant fuel savings from a fully owned LNP. Furthermore, staff accepts PEF's characterization that the level of activity with potential joint owners was in line with PEF's current level of activity on the project, but has not ceased. (EXH 74, pp. 4-6)

#### Conclusion

Staff recommends that the Commission approve what PEF has submitted as its annual detailed analysis of the long-term feasibility of completing the Levy Units 1 & 2 project. Staff believes PEF has offered a fully vetted, transparent, and convincing discussion of its selection of a course of action. In doing so, a preponderance of the evidence shows PEF fully considered the economic, regulatory, technical, funding, and joint ownership considerations impacting the feasibility of the project. While PEF acknowledged continuing uncertainty in virtually all these areas, all appear to point toward the LNP being feasible at this time.

**Issue 7:** Is PEF's decision to continue pursuing a Combined Operating License from the Nuclear Regulatory Commission for Levy Units 1 & 2 reasonable? If not, what action, if any, should the Commission take?

**Recommendation:** Staff recommends the Commission find PEF's decision to continue pursuing a Combined Operating License for Levy Units 1 & 2 reasonable at this time. (Breman)

**Position of the Parties**

**PEF:** Yes. This decision was the result of a deliberate, rational, decision-making process consistent with best management practices in the utility industry. PEF reasonably and prudently made its decision based on this assessment of the LNP costs, benefits, and risks. If the Commission determines that PEF's decision is not reasonable and that PEF should cancel the LNP the Company is entitled to recover its prudent 2009, reasonable 2010, and reasonable project exit costs pursuant to Section 366.93(6).

**OPC:** PEF has not demonstrated that in choosing its proposed option, it has evaluated, with the customers' best interests in mind, all scenarios associated with the five year delay in the proposed commercial operation date of what remains of the LNP Project. The Commission should defer until at least the 2012 billing/recovery period, 75% of \$62.6 million of the 2010 and 2011 costs at issue in this proceeding.

**PCS PHOSPHATE:** No. Given the change in circumstances associated with the revised cost and schedule for the LNP project, PEF has not established that its decision was reasonable. In particular, PEF did not adequately assess the project cancellation options. PCS agrees with OPC's findings and recommendations.

**FIPUG:** The numerous uncertainties and risks associated with the LNP raise questions as to whether PEF has pursued the most prudent course of action. The Commission should defer any advance cost recovery until the status of the LNP is determined. The Commission should also devise a risk sharing mechanism so that the burden of such projects does not fall entirely on ratepayers.

**SACE:** No. It is unreasonable for PEF to continue to incur additional costs on the licensing of the proposed Levy Units 1 & 2, and pass these costs on to ratepayers, with no demonstrated commitment to actually construct the proposed reactors and with no demonstration of the long-term feasibility of completing the reactors. As a result, the Commission should deny cost recovery for PEF's 2010 and 2011 costs as these costs are not being reasonably incurred.

**Staff Analysis:** This issue addresses the reasonableness of PEF's decision to continue pursuing a COL for the LNP. Staff notes that acquiring a COL is a prerequisite for the safety-related construction and operation of a nuclear power plant.<sup>11</sup> Reference to COL activities in the issue statement serves to show the LNP status as progressing towards commercial operation as opposed to project cancellation. Therefore, this issue essentially addresses the reasonableness of continuing with the LNP in the event that the project is determined to be feasible in Issue 6.

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<sup>11</sup> 10 CFR 50.10(c) and 10 CFR 52.103(g)

As staff addresses more fully below, PEF explicitly considered but rejected project cancellation in response to events that transpired after PEF submitted its applications to the NRC. On July 30, 2008, PEF submitted LWA and COL applications to the NRC for the LNP.<sup>12</sup> Staff notes that the Commission previously addressed, by Order PSC-09-0783-FOF-EI, the prudence of PEF's 2008 LNP activities. The Commission acknowledged that:

PEF believed its requested NRC review schedule for the LWA and COLA was necessary to achieve the 2016 and 2017 in-service dates. No party challenged PEF's need to secure its proposed LWA to meet 2016 and 2017 in-service dates.

On December 31, 2008, PEF entered into the EPC agreement with Shaw/Westinghouse. The project schedule which formed the basis for the EPC agreement was predicated on receiving an LWA from the NRC which would allow certain safety related work to proceed before the COL was issued. (TR 706) However, on January 23, 2009, the NRC staff informed PEF that review of the LWA request would take as long as the review of the combined operating licensee application (COLA).<sup>13</sup>

The NRC's LWA determination was memorialized in the NRC's LNP review schedule issued in late February 2009. (TR 190, 540, 707) As a result of the NRC's determination, PEF withdrew its LWA. On May 1, 2009, PEF announced a schedule shift of at least 20 months. (TR 706) This announcement gave rise to questions during the 2009 NCRC proceeding concerning the timing of PEF's decision to enter the EPC agreement.<sup>14</sup> These questions were addressed in Order PSC-09-0783-FOF-EI, at page 30, where the Commission stated "we are persuaded that PEF's actions and planning regarding an LWA leading up to the signing of an EPC contract were reasonable and consistent with good business practices." No party appealed the order.

Staff notes that the full ramifications of the NRC's determination were not addressed in the 2009 NCRC proceeding because impacts to the EPC contract were not known at the time, and as noted below, PEF did not complete its analyses until early 2010. With the NRC LWA determination in 2009, the NRC would not authorize excavation and foundation preparation work until the COL is issued. (TR 554) Without an LWA to perform excavation and foundation preparation work prior to COL issuance, there would be a minimum 20 month shift in the original LNP schedule. (TR 554) However, the 2008 schedule and costs to perform excavation and foundation preparation work were no longer reasonable because of the NRC's determination to complete its LWA and COL review on the same date. On April 30, 2009, PEF notified Shaw/Westinghouse that PEF was enacting a partial suspension clause of the EPC contract for a period of at least 20 months. (EXH 77) PEF requested analyses for potential amendment of the EPC agreement and various scenarios considering 24 and 36 month shifts in project schedules. (TR 201, 540, 707; EXH 77) These analyses formed the basis for PEF's announced plan to go forward with the LNP. (TR 707)

Shaw/Westinghouse submitted a response on August 13, 2009. (EXH 77) From August through October, PEF analyzed and evaluated the schedule shift proposals and, based on that

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<sup>12</sup> Attachment B, Item 12, pages 25, 28, and 30.

<sup>13</sup> Attachment B, Item 12, page 28.

<sup>14</sup> Attachment B, Item 12, page 25.

evaluation, PEF requested additional schedule analysis impacts. (TR 540; EX 77) The Senior Management Committee (SMC), at an October 15, 2009 meeting, expressed concern that these shift scenarios may not provide the best long-term option given the current economic conditions in the state. (EXH 77) The LNP team was tasked to reevaluate the schedule with longer-term suspension options and assess the following options:

- Cancel the LNP;
- Cancel the EPC contract while continuing the COL efforts;
- Cancel current EPC purchase orders and suspend the EPC contract while maintaining all beneficial terms and conditions and continuing with COL efforts;
- Continue with a 36 month schedule shift.

(EXH 77)

On January 20, 2010, the NRC issued a revised review schedule extending the target date for the final environmental impact statements by about ten months. (TR 860-862) Due to increasing NRC review schedule concerns, PEF questioned the reasonableness of a 36-month schedule shift with in-service dates in 2019 and 2021 for Levy Units 1 and 2, respectively. (TR 860-862) The 36-month LNP schedule shift scenario appeared to lack "float" or allowance for delays in the project schedule. (TR 860-862) PEF witness Lyash stated that, "the totality of our assessment that moving it to the 2021/2022 in-service time we felt was the optional decision." (TR 1187)

On February 15, 2010, the LNP team presented its evaluations to the SMC. (EXH 30) On March 26, 2010, PEF signed EPC Amendment 3 to resolve the impact of the schedule shift. (TR 860-862) Staff observes that implementation of EPC Amendment 3 and continued efforts to secure the COL for the LNP are the underlying assumptions reflected in PEF's requested 2010 and 2011 recovery amounts.

Staff notes that the above timeline and summary of PEF's actions are not disputed by any party. Audit staff witnesses Carpenter and Coston reviewed PEF's approach to decision-making and concluded that PEF's approach was reasonable. (TR 751, 758)

SACE witnesses Cooper and Gunderson characterized PEF's COL activities as "line sitting" or "site banking." (TR 644, 681; SACE BR 9, 20) Witness Cooper stated, "[i]n my opinion, it is not reasonable or prudent to allow PEF and FPL to incur additional costs of these proposed reactors from Florida ratepayers so that the utilities can do nothing more than sit in line until they themselves determine if completion of the reactors is feasible." (TR 636) Witness Gunderson defined site banking as a strategy that is ". . . entirely focused upon funding only the necessary NRC requirements for obtaining a COL without any real demonstrated commitment to actually constructing these proposed new reactors." (TR 681) Witness Gunderson stated, "[t]he ultimate conclusion of my analysis is that neither PEF nor FPL have demonstrated that completion of these reactors is feasible, and as a result incurring additional costs for site banking is unreasonable and imprudent." (TR 675) Staff believes both witness Cooper and Gunderson

recognize PEF is pursuing a COL yet offer their respective characterizations of “line sitting” or “site banking” because of their opposition to the LNP being found feasible. Staff believes SACE witnesses Cooper and Gunderson do not present any additional analysis concerning the reasonableness of PEF’s decision to continue pursuing a COL.

OPC witness Jacobs clearly stated his opinion regarding the cancellation of the LNP (TR 727). The following question and answers occurred during cross-examination:

Q. Dr. Jacobs, is it your opinion that Progress Energy Florida should cancel the Levy nuclear project?

A. No, that’s not my opinion at this time.

Q. And is it your opinion, Dr. Jacobs, that Progress Energy Florida should terminate the EPC agreement and cancel the Levy nuclear project?

A. No, it is not.

Nevertheless, witness Jacob expressed a view that uncertainty exists and there must be a balance between the risk and cost to ratepayers (TR 725-726). He stated:

If it is certain that the project would continue, then the company’s option would be the proper one. If it is certain that the project would be canceled, then it should be canceled sooner rather than later.

However, if there is uncertainty, as there is, there must be a balance between the risk and the cost to the ratepayers. And, therefore, I recommend in my testimony that the company be required to analyze the fourth scenario that I have identified, and in light of this analysis and the identified risks justify the option that they have, they have chosen.

Staff believes that witness Jacobs’ recommendation has two elements. The first and most obvious element is that the Commission should order PEF to analyze a scenario in which the LNP is cancelled after receipt of the COL in late 2012. (TR 708, 711-713, 722, 725-726) The second element is found in his expression that in addressing uncertainty “. . . there must be a balance between the risk and costs for the ratepayers” (TR 726) Thus, it appears that the purpose of soliciting the analysis is to use the analysis in establishing, as witness Jacob stated, “a balance between the risk and cost to the ratepayers.”

OPC acknowledged that PEF provided the analysis of cancellation after receipt of the COL as sought by its witness. (OPC BR 15; TR 932-933; EXH 88) On rebuttal, PEF witness Elnitsky explained that the analysis, his exhibit JL-6, was considered by the SMC during evaluation of project cancellation options. (TR 930-933, 936, 1012-1013) Consequently there is no longer a need or basis for the Commission to order PEF to provide the analysis requested by OPC witness Jacobs.

The next element in witness Jacob’s recommendation, establishing a balance between the risk and cost of the ratepayers, in staff’s view, appeared in OPC’s post-hearing brief as a “risk sharing” mechanism. (OPC BR 5) The specific action OPC requested in implementing its proposed risk sharing mechanism results in (i) deferring recovery of 75 percent of PEF’s

estimated true-up amount for 2010 and 75 percent of PEF's projected 2011 amounts that would otherwise be eligible through the NCRC, (ii) consideration of recovery of the deferred amounts in the 2011 NCRC proceeding, and (iii) holding the eligibility for recovery on a Commission finding that "PEF has a realistic chance of completing the plant in a manner that is beneficial to customers." (OPC BR 5, 23-25) Staff notes that OPC's brief did not state whether the actions requested would only apply to the 2011 NCRC or whether there would be additional ongoing risk sharing actions impacting 2012 and subsequent NCRC proceedings. Additionally, OPC's brief did not demonstrate how the proposed actions achieved the intended goal of risk sharing. Staff notes that OPC's post-hearing proposal appeared late in the process, which does not allow for careful and complete analysis.

Additionally, staff notes that the Commission's authority to require risk sharing is addressed in Issue 3A. Consistent with staff's recommendation to defer resolution of Issue 3A, and the late nature of OPC's proposed risk sharing mechanism, staff believes the Commission should refrain from adopting OPC's risk sharing mechanism at this time.

PEF did not dispute that there are greater uncertainties facing the LNP today. (TR 1109) PEF believes it has sufficiently mitigated the risks and uncertainties associated with the project by focusing on the COL under the terms of the amended EPC agreement. (TR 1109) PEF opined that OPC witness Jacobs' assessment of risks was incomplete because he did not evaluate the mitigation of risks through the EPC amendment. (TR 1110) EPC Amendment 3 provided for deferral of approximately \$1 billion in project expenses until after the COL is obtained. (TR 869, 954, 961, 1088, 1089)

Staff notes that the underlying concern raised by OPC's witness and again in OPC's proposed "risk sharing" mechanism is that of rate impacts. The briefs of FIPUG and PCS Phosphate express similar concern and urge Commission action. (FIPUG BR 2, 14, 18; PCS Phosphate BR 10, 11, 17) Estimates of rate impacts based on a 1000 kWh usage residential monthly bill were presented in the need proceeding for the LNP. (EXH 190) At that time, the maximum estimated rate impact through the NCRC would be \$28.96 in 2015. (EXH 190, p. 2176) In this proceeding, the updated estimate of the residential bill for 2015 is down to \$6.51. (EXH 188) However, the maximum rate impact is now \$43.42 and occurs five years later in 2020. (EXH 188) On a simple ratio basis, and ignoring the time value of money, the updated information shows that the maximum NCRC residential bill impact may have increased 50 percent.<sup>15</sup> Staff believes that rate impacts are substantially a consequence of the timing of recovery. Twice PEF implemented deferrals of recovery amounts, as a means to mitigate rate impact.<sup>16</sup> The Commission, by Order No. PSC-09-0783-FOF-EI, granted PEF flexibility "to annually reconsider changes to the deferred amount and recovery schedule." Given that all parties view risk differently and that the NCRC is, pursuant to Section 366.93, F.S., an alternative cost recovery mechanism, the unique facts applicable to PEF's LNP may warrant a review of options. However, the testimony in this proceeding lacks rigorous analysis of specific or alternative rate management and/or "risk sharing" mechanisms.

<sup>15</sup>  $50\% = 100\% \times (\$43.42 - \$28.96) \div \$28.96$

<sup>16</sup> Attachment B, Item 10 page 4; Item 12, page 38



Notwithstanding, PEF asserted that its decision to continue the LNP was reasonable and is not rendered unreasonable simply because intervenors prefer a different or a conditional decision. (PEF BR 20) The fundamental question is what energy policy does the State of Florida want to support. PEF believes that nuclear continues to be an important part of the long-term energy mix and that to walk away from this project would be a mistake. (PEF BR 33; TR 1211) PEF witness Lyash characterized his feeling about the project as “. . . not bullish, but eyes wide open to both the costs and the benefits.” (TR 1211) These are the same benefits that the Florida Legislature recognized in the 2006 legislation and the Commission recognized in granting the need determination for the LNP. (PEF BR 30; TR 1088, 1095, 1114) These benefits include fuel diversity, carbon free generation, reduced reliance on fossil fuels, and an estimated \$100 billion in fuel savings to customers over the 40 years of operation. (PEF BR 30; TR 1210)

#### Conclusion

Staff believes PEF has offered a fully vetted, transparent, and convincing discussion of the reasonableness of continuing the LNP compared to cancellation at this time. Staff recommends the Commission find PEF's decision to continue pursuing a COL for the LNP reasonable. Staff does not believe the record supports adoption of the risk sharing mechanism as proposed by OPC, at this time. Staff's recommendation affords the opportunity to continue forward with the LNP in an effort to secure the expected long-term benefits and also allows the opportunity to assess the appropriateness of any LNP specific risk sharing mechanism in a subsequent proceeding.

**Issue 8:** Should the Commission approve what PEF has submitted as its 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?

**Recommendation:** Staff recommends that the Commission approve what PEF has submitted as its annual detailed analysis of the long-term feasibility of completing the Crystal River Unit 3 Uprate project. The Company presented evidence that it examined technical, regulatory, and economic factors impacting the long-term feasibility of the project. (Garl)

**Position of the Parties**

**PEF:** Yes, the Commission should approve what PEF submitted because PEF's detailed analysis demonstrates the long-term feasibility of completing the CR3 Uprate project. The CR3 power uprate will provide customers substantial benefits for the extended life of the CR3 plant and enhance fuel diversity on PEF's system. All of these benefits will be achieved and the full 180 MWe will be realized when the project is completed after the next CR3 refueling outage, and, therefore, the project is feasible.

**OPC:** No. The Commission should require PEF to submit in 2011 a feasibility analysis that evaluates the project based on likely NRC-approved power levels.

**PCS PHOSPHATE:** No. Agree with OPC.

**FIPUG:** No. The Commission should require PEF to submit a feasibility analysis that evaluates the project based on likely NRC-approved power levels as discussed in Issues 4 and 5.

**SACE:** Agree with OPC.

**Staff Analysis:** This issue addresses review and approval of PEF's detailed long-term feasibility analysis of continuing construction and completing the CR3 Uprate project as required by Rule 25-6.0423, F.A.C.

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 the Commission to establish, by rule, alternative cost recovery mechanisms for the recovery of costs incurred in the siting, design, licensing, and construction of a nuclear power plant. The 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.

PEF witness Franke explained that the CR3 Uprate project was designed as a three-phase endeavor. The first phase was completed during a 2007 refueling outage with the unit returning to on-line service in January 2008. The second phase was completed on schedule and on budget

during the 2009 refueling outage. The final phase, referred to as the Extended Power Uprate (EPU), is scheduled to occur during the next refueling outage, in the fall of 2012. While PEF is performing the planning required for the third phase, it is also tracking LAR submissions from other utilities to determine the right timing for submitting the EPU LAR to the NRC. PEF has seen nothing suggesting its LAR will not be approved. (TR 364, 805-806)

OPC witness Jacobs suggested that PEF should have waited until the NRC approved the LAR for the EPU before committing to expenditures for the third phase of the uprate. However, he did not suggest that the CR3 Uprate project is infeasible or that PEF's work toward completion should be stopped until the NRC approves the LAR. (TR 732-733)

OPC speculated in its post-hearing brief about "likely NRC-approved power levels." (OPC BR 34) The other intervenors joined in OPC's speculation. (FIPUG BR 18; PCS Phosphate BR 1; SACE BR 5) While much testimony and exhibits in the record address concern about whether the NRC will approve the LAR, nothing in the record suggests that NRC approval of the LAR might be for a power level less than the 180 MW being requested by PEF. While this is a possibility, the lack of any testimony, questions, or other evidence in the record to that effect suggests that none of the parties considered NRC approval of a lower power level as probable. Staff believes that the annual NRC proceeding provides the forum for review of such a situation should it arise.

PEF witness Franke testified that PEF's feasibility analysis of the CR3 Uprate project considered qualitative and quantitative factors. Qualitative analysis included assessment of technical and regulatory capability to complete the EPU. Analysis of the technical capability to complete the project included several feasibility studies in 2009. These studies confirmed that the work and EPU component installation can be completed and the EPU achieved. The studies added to the confidence gained from having completed two of the three phases of the project on schedule with no material issues. (TR 362-364)

PEF also believes that the various regulatory and legal approvals, such as the LAR, can be obtained. The Company studied the progress of LAR reviews conducted by the NRC and established the EPU schedule based on the historical time needed to complete the NRC review process. Another factor increasing LAR review time is an extended outage through 2010 due to matters unrelated to the CR3 Uprate project. This extended outage will push back the next refueling outage to fall 2012 when actual work on the third phase of the uprate will begin. (TR 364-365)

PEF completed an updated, quantitative CPVRR economic analysis that included an update of the fuel cost savings to customers. This analysis was completed assuming completion of the EPU during a planned 2011 refueling outage. PEF believes a shift in the refueling outage date to fall 2012, due to the 2010 extended outage, will not materially impact these numbers. (TR 362) The results show that the completed uprate will provide customers substantial fuel savings for the extended life of the plant. While PEF has opted to install a new low pressure turbine at additional expense of \$47 million, this option shows an estimated NPV fuel savings of over \$800 million. When compared to the remaining investment, it is clearly beneficial to customers to move forward. (TR 362-366)

Conclusion

Staff recommends that the Commission approve what PEF has submitted as its annual detailed analysis of the long-term feasibility of completing the Crystal River Unit 3 Uprate project. The Company presented evidence that it examined technical, regulatory, and economic factors impacting the long-term feasibility of the project. A review of this information demonstrated that the project remains feasible.

**Issue 9:** What system and jurisdictional amounts should the Commission approve as PEF's final 2009 prudently incurred costs and final true-up amounts for the Crystal River Unit 3 Uprate project?

**Recommendation:** Staff recommends that the Commission approve as reasonable the following Crystal River Unit 3 Uprate project final 2009 costs: capital costs in the amount of \$118,140,493 (\$87,458,545 jurisdictional), O&M expenses of \$821,773 (\$762,529 jurisdictional), carrying charge of \$14,351,595, and a base revenue requirement of \$396,018. The Commission should also approve as reasonable a final 2009 true-up amount of negative \$244,765 for use in determining the 2011 NCRC recovery amount. The final true-up amount is the summation of the following factors: \$9,999 over-projection of 2009 O&M expenses, \$122,005 under-projection of carrying charges, and a \$356,771 over-projection of other adjustments. Staff recommends the Commission find that there is not enough information in the record at this time to determine the prudence of PEF's 2009 CR3 Uprate costs. Therefore, staff recommends the Commission revisit the issue of PEF's prudence concerning 2009 CR3 Uprate costs during the 2011 NCRC proceeding. (Laux)

**Position of the Parties**

**PEF:** Capital Costs (System) \$118,140,493; (Jurisdictional, net of joint owners) \$87,458,545. O&M Costs (System) \$821,773; (Jurisdictional, net of joint owners) \$762,529. Carrying Costs \$14,351,595 and a base revenue requirement of \$396,018. The net amount of -\$244,765 should be included in setting the allowed 2011 NCRC recovery. The 2009 variance is the sum of an O&M over-projection of \$9,999, under-projection of carrying charges of \$122,005 and an over-projection of adjustments of \$356,771.

**OPC:** PEF has not met the Rule 25-6.0423(8)(d) requirement of annual variance explanations. The Commission shouldn't make any prudence determination about 2009 EPU costs in 2010. PEF failed to demonstrate that the LAR preparation costs are prudent and reasonable. The Commission should disallow \$6 million of excessive LAR preparation costs consistent with the discussion on Issues 4 and 5.

**PCS PHOSPHATE:** Agree with OPC.

**FIPUG:** The Commission should disallow costs related to the work done by AREVA which were excessive and/or duplicative and were incurred due to inadequate management oversight during the preparation of the LAR. See discussion of Issues 4 and 5.

**SACE:** Agree with OPC.

**Staff Analysis:** This issue addresses PEF's request concerning the reasonableness and prudence of 2009 final costs and true-up amount for the CR3 Uprate project. Staff notes that two concerns have been identified by the parties concerning 2009 CR3 Uprate project costs. The first is associated with any cost impacts related to PEF's LAR development process, as addressed in Issue 5. The second concern is associated with OPC's assertion that PEF has not met the annual variance explanations requirements of Rule 25-6.0423(8)(d), F.A.C.

PEF witness Garrett provided support for the activities and methods used to determine the requested final recovery amount. (TR 62-65) PEF witness Franke provided descriptions of activities that are associated with the 2009 final costs and final true-up request. (TR 316-327)

Witness Garrett showed, on Exhibit 3, the 2009 CR3 Uprate project final true-up amount as a negative \$244,765. PEF is requesting that this amount be used in determining the 2011 total NCRC recovery amount. The requested amount includes the following items: over-projection of 2009 operation and maintenance (O&M) expenses in the amount of \$9,999, a \$122,005 under-projection of carrying costs, and a \$356,771 over-projection of other adjustments.

On Exhibit 3, witness Garrett identified final 2009 CR3 Uprate project costs which were used in calculating the final true-up amount. The costs include: capital costs in the amount of \$118,140,493 (\$87,458,545 jurisdictional), O&M expenses of \$821,773 (\$762,529 jurisdictional), carrying costs of \$14,351,595, and a base revenue requirement of negative \$396,018.

In support of the requested recovery amounts, PEF witness Franke stated:

During 2009, PEF incurred reasonable and prudent costs to plan for and carry out the second phase of the project, which occurred during the 2009 refueling outage. PEF also incurred some costs in support of the third phase of the project, currently scheduled for the next CR3 refueling outage. This included costs necessary to secure long lead-time equipment necessary for the phase 3 outage work. The work performed for the second phase of the uprate project was completed and the equipment was installed during the 2009 refueling outage.

PEF took adequate steps to ensure that the costs it incurred were reasonable and prudent.

(TR 315-316)

As discussed in Issues 4 and 5, OPC believes that PEF's management oversight of the LAR development process was inadequate and therefore certain 2009 costs should be disallowed. (OPC BR 25) OPC stated, "[t]he fundamental issue is this: was the cost associated with the expert panel, the LAR re-write and company staff costs excessive or duplicative based on sloppy work that PEF did not properly oversee?" (OPC BR 28) OPC argued it was, and recommends that the Commission disallow \$6 million of PEF's 2009 costs. (OPC BR 31) OPC stated that "[t]his recommended amount represents the rough aggregate of the [REDACTED] for the company costs to fix the mess." (OPC BR 31) In addition, OPC suggested that the Commission withhold a determination of prudence concerning total 2009 and 2010 costs related to the LAR re-write in order to allow further review. (OPC BR 31-32)

OPC also suggested that significant increases in the estimated total project cost (from \$439 million to \$512 million) are "unexplained and unjustified." (OPC BR 33) Given this, OPC asserted that PEF has not met the annual variance explanation requirement of Rule 25-6.0423(8)(d), F.A.C. (OPC BR 34) In addition, due to its concerns with PEF's lack of budget adherence and, project management, contracting, and oversight controls that appear to be

inadequate to control costs, OPC suggested, “[t]he Commission should allow the recovery on a preliminary basis of the remaining 2009, and the projected and estimated 2010 and 2011 costs but should not make a determination of prudence on any of the dollars pending further explanation and justification.” (OPC BR 31, 33)

As discussed in Issues 4 and 5, FIPUG stated that there are indications of inadequate management, and that PEF did not demonstrate that the costs related to the revised LAR are prudent and reasonable. (FIPUG BR 7) FIPUG suggested that had PEF appropriately staffed and supervised the LAR process, PEF would not have experienced a delay in preparing the LAR nor would PEF have incurred any additional costs to revise the LAR. (FIPUG BR 8) Staff notes FIPUG did not offer any evidence in support of its assertion. (FIPUG BR 8) Additionally, staff believes FIPUG’s arguments parallel those of OPC.

Audit staff witnesses Coston and Carpenter (as discussed in Issue 5) offered a finding in their audit review report concerning the CR3 Uprate project which is directly related to 2009 costs. On page 5 of their testimony they state, “[w]e recommend that the Commission consider whether the additional costs for the LAR restructuring/rewrite and the additional scope by AREVA resulted from inadequate management oversight.” (TR 752)

As discussed in Issue 5, PEF agrees with the fact that it had inadequate management oversight over the LAR process in 2009; however, it disagrees with any conclusions that this level of oversight was imprudent or resulted in ratepayers being charged twice for the same work. (PEF BR 16-17, 35-38). PEF also disagreed with OPC that PEF has not met the annual variance explanations requirements of Rule 25-6.0423(8)(d), F.A.C. PEF states that project cost variances and explanations were included in witnesses Garrett’s prefiled testimony. (PEF BR 37) In addition, project variance explanations and justifications were included in witness Franke’s testimony, and provided as answers to interrogatories and data requests, many of which are part of the record in this docket. (PEF BR 37-38). PEF also noted in its brief that witness Franke provided explanation and justification information during his deposition, a copy of which is a part of the record. (PEF BR 37)

Staff has reviewed the record, and believes that PEF met its obligations under Rule 25-6.0423(8)(d) F.A.C. Therefore, staff recommends that no Commission action is needed in that regard.

As discussed in Issue 5, staff believes that the record is clear that during 2009 PEF did not devote adequate resources to manage the LAR development process effectively. However, staff does not believe that this fact provides the Commission with a clear and sufficient basis on which to make a finding that costs were imprudently incurred. Staff believes that there is not enough information in the record, at this time, to determine whether CR3 Uprate costs have been negatively affected by PEF’s management actions concerning the LAR development. Testimony and positions of the parties concerning potential cost impacts range from \$0 to over \$40 million. (TR 476; PEF BR 36; OPC BR 29; FIPUG BR 8; TR 752) Given this, staff is not persuaded that the Commission should adopt, at this time, either OPC’s \$6 million disallowance, or FIPUG’s exclusion of all additional AREVA costs.

Nevertheless, staff believes OPC's suggestion to withhold a finding of prudence for the 2009 period has merit because there is not enough information in the record at this time to determine that a specific amount of costs were imprudently incurred. However, staff notes Rule 25-6.0423(5)(c)2, F.A.C., requires the Commission make a finding of prudence. The rule states in part:

The Commission shall, prior to October 1 of each year, conduct a hearing . . . to determine the reasonableness of projected construction expenditures and the prudence of actual construction expenditures expended by the utility, and the associated carrying costs.

Staff interprets the Rule to require the Commission to make a finding concerning PEF's prudence based on the record presented. Staff does not believe the Rule limits the Commission's ability as to how it frames its finding. Thus, staff believes that the Commission should find there is not enough information in the record at this time to determine the prudence of PEF's 2009 CR3 Uprate costs. Staff believes all parties' interests would be best served by affording them the opportunity to fully investigate and present the facts and circumstances surrounding the management of the CR3 Uprate LAR development process and ascertain the impacts it had on actual 2009 costs, if any. Staff recommends the Commission revisit the issue of PEF's prudence concerning 2009 CR3 Uprate costs during the 2011 NCRC proceeding.

Staff notes that beyond those items identified in Issues 4 and 5, no other concerns were identified with the 2009 final costs and final true-up amount for the CR3 Uprate project. Consistent with staff's recommendations in Issues 4 and 5, staff's verification of PEF's calculations and true-up amount, and a preponderance of the evidence in the record, staff believes PEF has demonstrated the reasonableness of its requested 2009 final cost and final true-up amount for the CR3 Uprate project.

#### Conclusion

Staff recommends that the Commission approve as reasonable the following Crystal River Unit 3 Uprate project final 2009 costs: capital costs in the amount of \$118,140,493 (\$87,458,545 jurisdictional), O&M expenses of \$821,773 (\$762,529 jurisdictional), carrying charges of \$14,351,595, and a base revenue requirement of \$396,018. The Commission should also approve as reasonable a final 2009 true-up amount of negative \$244,765 for use in determining the 2011 NCRC recovery amount. The final true-up amount is the summation of the following factors: \$9,999 over-projection of 2009 O&M expenses, \$122,005 under-projection of carrying charges, and a \$356,771 over-projection of other adjustments. Staff recommends the Commission find that there is not enough information in the record at this time to determine the prudence of PEF's 2009 CR3 Uprate costs. Therefore, staff recommends the Commission revisit the issue of PEF's prudence concerning 2009 CR3 Uprate costs during the 2011 NCRC proceeding.



**Issue 10:** What system and jurisdictional amounts should the Commission approve as PEF's reasonably estimated 2010 costs and estimated true-up amounts for the Crystal River Unit 3 Uprate project?

**Recommendation:** Staff recommends that the Commission approve as reasonable the following Crystal River Unit 3 Uprate project estimated 2010 costs: capital costs of \$66,334,227 (\$32,827,539 jurisdictional), O&M expenses of \$1,234,649 (\$1,109,484 jurisdictional), carrying charges of \$7,557,070, and a base revenue requirement of negative \$746,776. The Commission should also approve as reasonable an estimated 2010 true-up amount of \$2,379,874 for use in determining the 2011 NCRC recovery amount. The estimated true-up amount is the summation of the following factors: \$895,281 under-projection of 2010 O&M expenses, \$2,231,369 under-projection of carrying charges, and an over-projection of other adjustments in the amount of \$746,776. (Laux)

**Position of the Parties**

**PEF:** Capital Costs (System) \$66,334,227; (Jurisdictional, net of joint owners) \$32,827,539. O&M Costs (System) \$1,234,649; (Jurisdictional, net of joint owners) \$1,109,484. Carrying Costs \$7,557,070 and a base revenue requirement of negative \$746,776. The Commission should also approve an estimated 2010 EPU project true-up amount of \$2,379,874 to be included in setting the allowed 2011 NCRC recovery. The 2010 variance is the sum of an O&M under-projection of \$895,281, plus an under-projection of carrying charges of \$2,231,369 plus an under-projection of other adjustments of negative \$746,776.

**OPC:** No Position.

**PCS PHOSPHATE:** No position pending resolution of other issues.

**FIPUG:** This is a fall out calculation depending on the Commission's decisions on other issues.

**SACE:** No position.

**Staff Analysis:** This issue addresses PEF's request concerning the reasonableness of 2010 estimated costs and estimated true-up amount for the CR3 Uprate project.

PEF witness Foster provided support for the activities and methods used to determine the requested estimated recovery amount. (TR 90-94) PEF Witness Franke provided descriptions of activities that are associated with the 2010 estimated costs and estimated true-up request. (TR 342-358)

Witness Foster showed, on Exhibit 7, the estimated 2010 CR3 Uprate project true-up in the amount of \$2,379,874. PEF requested this amount be used in determining the 2011 NCRC recovery amount. The estimated project true-up amount includes the following items: under-projection of 2010 O&M expenses in the amount of \$895,281, a \$2,231,369 under-projection of carrying costs, and a \$746,776 over-projection of other adjustments.

On Exhibit 7, witness Foster identified estimated 2010 costs which were used in the true-up calculation. These costs include: capital costs in the amount of \$66,334,227 (\$32,827,539 jurisdictional), O&M expenses of \$1,234,649 (\$1,109,484 jurisdictional), carrying costs of \$7,557,070, and a base revenue requirement of negative \$746,776.

In support of the requested recovery amounts, witness Franke stated:

In 2010, PEF incurred reasonable and prudent cost to complete work for the second phase of the CR3 Uprate project during the 2009 refueling outage called the R16 outage. PEF also reasonably and prudently incurred and will continue to incur costs in 2010 to move forward with work for the third and final phase of the project and to finalize the Company's License Amendment Request ("LAR") for the project and support that request before the NRC. Work on the final phase of the CR3 Uprate project and to obtain NRC approval of the LAR for the full uprate will continue in 2011 as PEF prepares for the next CR3 refueling outage and the completion of the CR3 Uprate project.

PEF has also provided reasonable projections for costs to be incurred during the remainder of 2010.

These projected costs were developed using the best available information to the Company at this time.

(TR 341-342)

Staff notes that beyond those items identified in Issues 4, 5 and 8, no other concerns were identified with the 2010 estimated costs and estimated true-up amount for the CR3 Uprate project. Consistent with staff's recommendations in Issues 4, 5 and 8, staff's verification of PEF's calculations and true-up amount, and a preponderance of the evidence in the record staff believes PEF has demonstrated the reasonableness of its requested 2010 estimated costs and estimated true-up amount for the CR3 Uprate project.

#### Conclusion

Staff recommends that the Commission approve as reasonable the following Crystal River Unit 3 Uprate project estimated 2010 costs: capital costs of \$66,334,227 (\$32,827,539 jurisdictional), O&M expenses of \$1,234,649 (\$1,109,484 jurisdictional), carrying charges of \$7,557,070, and a base revenue requirement of negative \$746,776. The Commission should also approve as reasonable an estimated 2010 true-up amount of \$2,379,874 for use in determining the 2011 NCRC recovery amount. The estimated true-up amount is the summation of the following factors: \$895,281 under-projection of 2010 O&M expenses, \$2,231,369 under-projection of carrying charges, and an over-projection of other adjustments in the amount of \$746,776.

Docket No. 100009-EI  
Date: September 30, 2010

**Issue 11:** What system and jurisdictional amounts should the Commission approve as PEF's reasonably projected 2011 costs for the Crystal River Unit 3 Uprate project?

**Recommendation:** Staff recommends that the Commission approve as reasonable the following project 2011 costs for Crystal River Unit 3 Uprate project: capital cost of \$67,829,699 (\$52,297,867 jurisdictional), \$481,102 (\$423,093 jurisdictional), projected O&M expenses, carrying charges of \$10,023,829, and a base revenue requirement of \$3,424,764. The Commission should also approve as reasonable a projected 2011 amount of \$13,871,686 for use in determining the 2011 NCRC recovery amount. (Laux)

**Position of the Parties**

**PEF:** Capital Costs (System) \$67,828,699; (Jurisdictional, net of joint owners) \$52,297,867. O&M Costs (System) \$481,102; (Jurisdictional, net of joint owners) \$423,093. Carrying Costs \$10,023,829 and a base revenue requirement of \$3,424,764.

**OPC:** No position.

**PCS PHOSPHATE:** No position pending resolution of other issues.

**FIPUG:** This is a fall out calculation depending on the Commission's decisions on the other PEF issues.

**SACE:** No position.

**Staff Analysis:** This issue addresses PEF's request concerning the reasonableness of projected 2011 costs for the CR3 Uprate project.

PEF witness Foster provided support for the activities and method used to determine the requested 2011 projected recovery amount. (TR 94-97) PEF witness Franke provided descriptions of activities that are associated with 2011 period projected costs for which PEF is requesting recovery. (TR 342-358)

Witness Foster, on Exhibit 8, identified \$13,871,686 in 2011 CR3 Uprate projected costs for which PEF is requesting inclusion in the 2011 NCRC recovery amount. The projected 2011 recovery amount includes the following items: projected 2011 O&M expenses of \$423,093, carrying costs in the amount of \$10,023,829, and other adjustments in the amount of \$3,424,764.

On Exhibit 8, witness Foster also identified each of the 2011 CR3 Uprate costs on which the recovery request is based. These costs include: projected 2011 CR3 Uprate costs as: 2011 capital costs in the amount of \$67,828,699 (\$52,297,867 jurisdictional), O&M expenses of \$481,102 (\$423,093 jurisdictional), carrying costs of \$10,023,829, and a projected base revenue requirement of \$3,424,764.

In support of the requested recovery amounts, witness Franke stated that during 2011 PEF will:

. . . prepare for the last phase of the CR3 Uprate project, the Extended Power Uprate phase, which is scheduled for completion during the next plant refueling outage called R17. PEF recently decided that the R17 outage will take place in the spring of 2012. In 2011, PEF will incur costs to: (1) continue the engineering design work for the third phase of the uprate to be completed during the next refueling outage; (2) provide detailed field implementation planning of the engineering design work; (3) complete and submit the EPU LAR to the NRC and work through the licensing review process with the NRC; (4) develop CR3 Uprate vendor oversight plans and schedules for the R17 outage manufacturing cycle; and (5) work on vendor selection and procure long lead equipment for the EPU work during the R17 outage.

(TR 341-343)

Staff notes that beyond those concerns identified in Issues 4, 5 and 8, no other concerns were identified with the projected 2011 costs for the CR3 Uprate project. Consistent with staff's recommendations in Issues 4, 5 and 8, staff's verification of PEF's calculations, and a preponderance of the evidence in the record, staff believes PEF has demonstrated the reasonableness of its requested projected 2011 costs for the CR3 Uprate project.

#### Conclusion

Staff recommends that the Commission approve as reasonable the following project 2011 costs for Crystal River Unit 3 Uprate project: capital cost of \$67,829,699 (\$52,297,867 jurisdictional), \$481,102 (\$423,093 jurisdictional), projected O&M expenses, carrying charges of \$10,023,829, and a base revenue requirement of \$3,424,764. The Commission should also approve as reasonable a projected 2011 amount of \$13,871,686 for use in determining the 2011 NCRC recovery amount.

**Issue 12:** What system and jurisdictional amounts should the Commission approve as PEF's final 2009 prudently incurred costs and final true-up amounts for the Levy Units 1 & 2 project?

**Recommendation:** Staff recommends the Commission approve as prudent the following Levy Units 1 & 2 project final 2009 costs: capital costs in the amount of [REDACTED] (\$255,963,530 jurisdictional), O&M expenses of \$4,500,975 (\$4,020,056 jurisdictional), carrying costs of \$36,124,710, and a base revenue requirement of \$7,619. The Commission should also approve as prudent a final 2009 true-up amount of \$4,192,819 for use in determining the 2011 NCRC recovery amount. The final true-up amount is the summation of the following factors: \$8,749,309 over-projection of 2009 pre-construction cost, \$911,232 over-projection of O&M expenses, \$13,845,741 under-projection of carrying costs, and a \$7,619 under-projection of other adjustments. (Laux)

**Position of the Parties**

**PEF:** Capital Costs (System) [REDACTED] (Jurisdictional) \$255,963,530. O&M Costs (System) \$4,500,975; (Jurisdictional) \$4,020,056. Carrying Costs \$36,124,710 and a base revenue requirements of \$7,619. The net amount of \$4,192,819 should be included in setting the allowed 2011 NCRC recovery. The 2009 valiance is the sum of over-projection preconstruction costs of \$8,749,309, plus an over-projection of O&M expenses of \$911,232 plus an under-projection of carrying costs of \$13,845,741, plus an under-projection of other adjustments costs of \$7,619.

**OPC:** PEF has represented that all the costs related to its non-LNP transmission needs have been appropriately removed from requested cost recovery in this docket. The Commission should make an affirmative finding as to this. Otherwise, the OPC takes no position.

**PCS PHOSPHATE:** PCS Phosphate agrees with and adopts the position of the OPC.

**FIPUG:** This is a fall out calculation depending on the Commission's decisions on the other PEF issues.

**SACE:** Agree with OPC.

**Staff Analysis:** This issue addresses PEF's request concerning the prudence of final 2009 costs and true-up amounts for the LNP.

PEF witness Garrett provided support for the activities and methods used to determine the requested recovery amounts. (TR 57-62, 67-70; EXH 2) PEF witnesses Hardison and Karp, also provided descriptions of activities associated with the final 2009 costs and final true-up amounts for the LNP. (Hardison TR 536-544; Karp TR 598-608)

Witness Garrett explained that the data taken from PEF's books and records are kept in accordance with general accepted accounting principals and practices, provisions of the Uniform System of Accounts, and any accounting rules and orders established by this Commission. (TR 57) Witness Garrett applied these standards in the development of the 2009 LNP final true-up amount of \$4,192,819 that PEF requests be included in determination of the 2011 NCRC

recovery amount. This amount includes the following items: 2009 pre-construction cost over-projection in the amount of \$8,749,309, \$911,232 over-projection of O&M expenses, \$13,845,741 under-projection of carrying costs, and a \$7,619 under-projection of other adjustments. (EXH 2) These final true-up amounts are based on the following final 2009 costs: Capital costs of [REDACTED] (\$255,963,530 jurisdictional), O&M expenses of \$4,500,975 (\$4,020,056 jurisdictional), and carrying costs of \$36,124,710.

The majority of Engineering, Design, and Procurement costs were incurred pursuant to the terms of the EPC agreement. (Hardison TR 540) The 2009 O&M expenses were related to internal labor and expenses, legal costs, and the NuStart Energy Development LLC program. (TR 543-544) PEF's 2009 LNP licensing activities included: (1) Responding to NRC requests for additional information (RAI); (2) Preparing testimony and support for the DEP Site Certification Application (SCA) hearings; (3) Developing SCA Conditions of Certification Reports; (4) Submission of COL Revision 1; (5) Responding to NRC Atomic Safety and Licensing Board intervenor motions and contentions; (6) Completing the conceptual Environmental Mitigation Plan and responding to DEP requests for additional information; (7) Continuing work on Federal permitting, the Wetland Mitigation Plan and the Baseline Ecological Survey; (8) NRC site reviews of geotechnical and other technical evaluations; and (9) Supporting licensing activities associated with the API000 Design Control Document revisions and the standard sections of the Reference Plant COL. (Hardison TR 536-538)

LNP engineering activities and work included: (1) Developing a Grout Test Program; (2) Completing document reviews related to early site infrastructure, construction, and the API000 standard plant design; (3) Completing an offset boring program required to support specific NRC RAI questions associated with site characterization; (4) Engineering support required to respond to NRC RAIs. (Hardison TR 538)

The 2009 LNP related transmission activities included working on State and Federal licensing, program and project schedules and cost estimates, staffing and resource plans, external outreach and communications, project designs, transmission line route selection, land acquisition, and permitting activities (Karp TR 597)

Through its brief, OPC took no position on this issue. However, staff notes OPC's "no position" is conditioned on the removal from recovery of all non-LNP transmission costs. (OPC BR 35) Nowhere in its brief, or the testimony of OPC's witness Jacobs, does OPC identify any non-LNP transmission costs. Staff agrees with the basis of OPC's position that only costs directly related to an eligible project qualifies for NCRC recovery.

PEF witness Karp testified that PEF's 2011 NCRC cost recovery request concerning transmission-related costs currently reflects the LNP schedule shift. (TR 619-621, 630) PEF witness Elnitsky, in his deposition, stated that "all costs associated with this Central Florida South Substation project were completely removed from the LNP, and the Company's cost recovery request." (EXH 218) Hearing Exhibit 191 contains PEF's response to OPC Interrogatory No. 90. In this response, PEF stated that all transmission costs affected by the LNP schedule shift have been removed and transferred to general transmission operation accounts. Staff believes that there is adequate record support to conclude that OPC's transmission related concern is resolved.

Staff notes that beyond concerns raised regarding LNP feasibility (Issue 6), and the transmission concern OPC raised in this issue, no other specific concerns as to the prudence of 2009 LNP costs were identified. Consistent with staff's recommendations on these issues, verification of PEF's calculations and true-up amounts, and a preponderance of the evidence in the record, staff believes PEF has demonstrated its requested 2009 final costs and true-up costs for the LNP were prudently incurred.

#### Conclusion

Staff recommends the Commission approve as prudent the following Levy Units 1 & 2 project final 2009 costs: capital costs in the amount of [REDACTED] (\$255,963,530 jurisdictional), O&M expenses of \$4,500,975 (\$4,020,056 jurisdictional), carrying costs of \$36,124,710, and a base revenue requirement of \$7,619. The Commission should also approve as prudent a final 2009 true-up amount of \$4,192,819 for use in determining the 2011 NCRC recovery amount. The final true-up amount is the summation of the following factors: \$8,749,309 over-projection of 2009 pre-construction cost, \$911,232 over-projection of O&M expenses, \$13,845,741 under-projection of carrying costs, and a \$7,619 under-projection of other adjustments.

**Issue 13:** What system and jurisdictional amounts should the Commission approve as reasonably estimated 2010 costs and estimated true-up amounts for PEF's Levy Units 1 & 2 project?

**Recommendation:** Staff recommends that the Commission approve as reasonable the following Levy Units 1 & 2 project 2010 estimated costs: capital costs of [REDACTED] (\$143,951,411 jurisdictional), O&M expenses of \$4,211,926 (\$3,687,427 jurisdictional), and carrying costs of \$50,652,578. The Commission should also approve as reasonable an estimated 2010 true-up amount of \$8,121,477 for use in determining the 2011 NCRC recovery amount. The estimated true-up amount is the summation of the following factors: \$11,835,352 under-projection of 2010 pre-construction costs, \$745,625 over-projection of O&M expenses, and an over-projection of carrying costs in the amount of \$2,968,249. (Laux)

**Position of the Parties**

**PEF:** Capital Costs (System) [REDACTED]; (Jurisdictional) \$143,951,411. O&M Costs (System) \$4,211,926; (Jurisdictional) \$3,687,427. Carrying Costs \$50,652,578. The Commission should also approve an estimated 2010 LNP project true-up amount of \$8,121,477 to be included in setting the allowed 2011 NCRC recovery. The 2010 variance is the sum of an under-projection of Preconstruction costs of \$11,835,352, plus an over-projection of O&M expenses of \$745,625 plus an over-projection of carrying charges of \$2,968,249.

**OPC:** No position.

**PCS PHOSPHATE:** PCS Phosphate agrees with and adopts the position of the OPC.

**FIPUG:** This is a fall out calculation depending on the Commission's decisions on the other PEF issues.

**SACE:** None. PEF has not demonstrated that completion of the Levy Units 1 & 2 is feasible in the long-term as required by Rule 2S-6.0423(5)(c)5, F.A.C., therefore no such costs could be reasonably estimated and/or incurred.\*

**Staff Analysis:** This issue addresses PEF's request concerning the reasonableness of 2010 estimated costs and estimated true-up amount for the LNP.

PEF witness Foster provided support for the activities and methods used to determine the requested recovery amount. (EXH 4) PEF witnesses Karp and Hardison also provided descriptions of activities that are associated with the 2010 estimated costs and estimated true-up request. (Karp TR 620-629; Hardison TR 562-570)

For the remainder of 2010, PEF will incur costs related to: (1) continuing COLA activities with the NRC; (2) executing near-term wetland mitigation activities working with the DEP and the USACE; (3) ongoing EPC contractor and vendor support for open long-lead material purchase orders and disposition activities; (4) continuing project management and federal and state regulatory support; (5) managing and supervising continuing long-lead material vendor work; (6) continuing AP1000 design support and work; (7) continuing design finalization



payments in 2010 under the EPC Agreement; and (8) investigating, managing, and acquiring certain land for roads and wetlands mitigation. (Hardison TR 561-563)

The base load transmission schedule, scope, budget and work plan was realigned with the LNP schedule. Most of the LNP transmission activities were deferred past the receipt of the COL. During the remainder of 2010, costs will be incurred for environmental permitting and engineering design work, land acquisition associated with strategic right of ways, environmental impacts analysis, wetland mitigation planning. (Karp TR 619-622)

PEF witness Foster showed, on Exhibit 4, the estimated 2010 LNP true-up in the amount of \$8,121,477. PEF is requesting that this amount be used in determining the 2011 NCRC recovery amount. The estimated project true-up amount includes the following items: under-projection of 2010 pre-construction cost in the amount of \$11,835,352, a \$745,625 over projection of O&M expenses, and a \$2,968,249 over-projection of carrying charges.

On Exhibit 4, witness Foster identified estimated 2010 costs which are used in the true-up calculation. These costs include: capital costs in the amount of [REDACTED] (\$143,951,411 jurisdictional), O&M expenses of \$4,211,926 (\$3,687,427 jurisdictional), and carrying charges of \$50,652,578.

Staff notes that beyond the concerns raised in Issues 2, 6 and 7, no party identified any specific concerns as to the reasonableness of estimated 2010 LNP activities or associated cost. Consistent with staff's recommendations on these issues, verification of PEF's calculations and true-up amounts, and a preponderance of the evidence in the record, staff believes PEF has demonstrated the reasonableness of its requested 2010 estimated costs and estimated true-up amount for the LNP.

### Conclusion

Staff recommends that the Commission approve as reasonable the following Levy Units 1 & 2 project 2010 estimated costs: capital costs of [REDACTED] (\$143,951,411 jurisdictional), O&M expenses of \$4,211,926 (\$3,687,427 jurisdictional), and carrying costs of \$50,652,578. The Commission should also approve as reasonable an estimated 2010 true-up amount of \$8,121,477 for use in determining the 2011 NCRC recovery amount. The estimated true-up amount is the summation of the following factors: \$11,835,352 under-projection of 2010 pre-construction costs, \$745,625 over-projection of O&M expense, and an over-projection of carrying costs in the amount of \$2,968,249.

**Issue 14:** What system and jurisdictional amounts should the Commission approve as reasonably projected 2011 costs for PEF's Levy Units 1 & 2 project?

**Recommendation:** Staff recommends that the Commission approve as reasonable Levy Units 1 & 2 projected 2011 costs in the amount of \$75,259,568 for use in determining the 2011 NCRC recovery amount. The recommended amount, based on a projected 2011 capital cost [REDACTED] (\$48,464,396 jurisdictional), includes the following items: projected 2011 site selection and pre-construction costs in the amount of \$25,056,735, projected O&M expenses of \$4,343,901 (\$3,823,883 jurisdictional), and carrying costs of \$46,378,959. (Laux)

**Position of the Parties**

**PEF:** Capital Costs (System) [REDACTED]; (Jurisdictional) \$48,464,396. O&M Costs (System) \$4,343,901; (Jurisdictional) \$3,823,883. Carrying Charges \$46,378,950.

**OPC:** No position.

**PCS PHOSPHATE:** PCS Phosphate agrees with and adopts the position of the OPC.

**FIPUG:** No further advance payments should be permitted for the LNP. It is unclear what the status of this project is and thus ratepayers should not be required to make advance payments for a project that may never provide them any electricity. See discussion of Issues 6 and 7.

**SACE:** None. PEF has not demonstrated that completion of the Levy Units 1 & 2 is feasible in the long-term as required by Rule 2S-6.0423(5)(c)5, F.A.C., therefore no such costs could be reasonably estimated and/or incurred.

**Staff Analysis:** This issue addresses PEF's request concerning the reasonableness of projected 2011 costs for the LNP.

PEF witness Foster provided support for the activities and methods used to determine the requested projected recovery amount. (EXH 5) PEF witnesses Karp and Hardison also provided descriptions of activities that are associated with 2011 projected costs for which PEF is requesting recovery. (Karp TR 620-629; Hardison TR 562-570)

During 2011, PEF will incur costs related to: COL activities, executing near-term wetland mitigation activities, support for open long-lead material purchase orders and disposition activities, AP1000 design support and work; and investigating, managing, and acquiring certain land for roads and wetlands mitigation. (Hardison TR 561-563)

The base load transmission schedule, scope, budget and work plan was realigned with the LNP schedule. Most of the LNP transmission activities were deferred past the receipt of the COL. During 2011, costs will be incurred for environmental permitting and engineering design work, land acquisition associated with strategic right of ways, environmental impacts analysis, wetland mitigation planning. (Karp TR 619-622)

Witness Foster, on Exhibit 5, identified \$75,259,568 in 2011 LNP costs for which PEF is requesting inclusion in the 2011 NCRC recovery amount. This amount includes the following items: projected 2011 site selection and pre-construction costs in the amount of \$25,056,735, O&M expenses of \$3,823,883, and carrying costs in the amount of \$46,378,950.

On Exhibit 5, witness Foster also identifies each of the 2011 LNP costs on which the recovery request is based. These costs include: 2011 capital costs in the amount of [REDACTED] (\$48,464,398 jurisdictional), O&M expenses of \$4,343,901 (\$3,823,883 jurisdictional), and carrying costs of \$46,378,950.

Staff notes that beyond the general threshold eligibility and feasibility concerns raised by the parties, no party identified any specific concerns as to the reasonableness of projected 2011 LNP activities or associated projected cost. Consistent with staff's recommendations in Issues 2, 6, and 7, verification of PEF's calculations, and a preponderance of the evidence in the record, staff believes PEF has demonstrated the reasonableness of its requested projected 2011 costs for the LNP.

### Conclusion

Staff recommends that the Commission approve as reasonable Levy Units 1 & 2 projected 2011 costs in the amount of \$75,259,568 for use in determining the 2011 NCRC recovery amount. The recommended amount, based on a projected 2011 capital cost [REDACTED] (\$48,464,396 jurisdictional), includes the following items: projected 2011 site selection and pre-construction costs in the amount of \$25,056,735, projected O&M expenses of \$4,343,901 (\$3,823,883 jurisdictional), and carrying costs of \$46,378,959.

Docket No. 100009-EI  
Date: September 30, 2010

**Issue 15:** What is the total jurisdictional amount to be included in establishing PEF's 2011 Capacity Cost Recovery Clause factor?

**Recommendation:** Staff recommends the Commission approve a total jurisdictional amount of \$163,580,660 for the 2011 NCRC recovery amount. This amount should be used in establishing PEF's 2011 Capacity Cost Recovery Clause factor. The total 2011 recovery amount includes \$60,000,000 amortization of the rate management deferred balance. (Laux)

**Position of the Parties**

**PEF:** The total jurisdictional amount to be included in establishing PEF's 2011 Capacity Cost Recovery Clause factor should be \$163,580,660 (before revenue tax multiplier). Please see Appendix A for a breakout of these costs.

**OPC:** The Commission should include in establishing PEF's 2011 Capacity Cost Recovery Clause factor no more than \$85.1 million of the \$147.7 million submitted for recovery and defer recovery of \$62.6 million of the 2010 and 2011 revenue requirement pending a further determination of prudence. This allocates the risk within the parameters of the Rule at least temporarily while the Commission better understands the nature of the Company's self-imposed hold on the LNP construction project.

**PCS PHOSPHATE:** PCS Phosphate agrees with and adopts the position of the OPC.

**FIPUG:** No further advance payments should be permitted for the LNP. It is unclear what the status of this project is and thus ratepayers should not be required to make advance payments for a project that may never provide them any electricity. See discussion of Issues 6 and 7.

**SACE:** Agree with OPC.

**Staff Analysis:** This issue is primarily a fall-out issue that reflects decisions on all prior issues. In addition to these issues, PEF is requesting the Commission approve an amortization of \$60,000,000 from the rate management deferred balance related to the LNP. (TR 136-137, PEF BR 44) This amount would be included in the 2011 NCRC recovery amount. The rate management deferred balance consists of previously approved LNP costs whose actual recovery has been deferred in an effort to manage annual rate impacts.

With the exception of PEF, no party addressed the deferred amount to be recovered during 2011. Staff notes the Commission's approval of the rate management plan in Order No. PSC-09-0783-FOF-EI did not set or require a particular amortization schedule be used for any recovery of the deferred balance. However, staff further notes that the requested amount is consistent with PEF's original program goal of recovering all deferred amounts over a five-year period.

As shown in the table below, OPC, FIPUG, PCS Phosphate, and SACE argued for adjustments to PEF's 2011 recovery level in prior issues. Based on staff's recommendation in all prior issues, staff does not recommend any adjustment to PEF's petition.

Issues	Topic	PEF	OPC, PCS Phosphate, FIPUG	SACE
		Petition	With Adjustments	With Adjustments
Issue 9 (p. 41)	CR3 Uprate 2009 Final True-up	\$-244,765	-\$6,244,765	-\$6,244,765
Issue 10 (p. 45)	CR3 Uprate 2010 Estimated True-up	\$2,379,874	\$2,379,874	\$2,379,874
Issue 11 (p. 47)	CR3 Uprate 2011 Projections	\$13,871,686	\$13,871,686	\$13,871,686
CR3 Uprate Subtotal		\$16,006,795	\$10,0006,795	\$10,0006,795
Issue 12 (p. 49)	LNP 2009 Final True-up	\$4,192,819	\$4,192,819	\$4,192,819
Issue 13 (p. 52)	LNP 2010 Estimated True-up	\$8,121,477	\$2,030,369	\$0
Issue 14 (p. 54)	LNP 2011 Projections	\$75,259,568	\$18,814,892	\$0
Amortization of Deferrals		\$60,000,000	\$60,000,000	\$60,000,000
LNP Subtotal		\$147,573,864	\$85,038,080	\$64,192,819
NCRC Total 2011 Amount <sup>17</sup>		\$163,580,660	\$95,044,875	\$74,199,614

Conclusion

Staff recommends the Commission approve a total jurisdictional amount of \$163,580,660 for the 2011 NCRC recovery amount. This amount should be used in establishing PEF's 2011 Capacity Cost Recovery Clause factor. The total 2011 recovery amount includes \$60,000,000 amortization of the rate management deferred balance.

<sup>17</sup> Numbers do not add due to rounding.

PEF's Post-Hearing Brief Attachment for Issue 15

CR3 2011 Uprate Revenue Requirement Summary				
	2009 True-Up	2010 A/E True-Up	2011 Projected	Total
O&M	-\$9,999	\$895,281	\$423,093	\$1,308,375
Carrying Costs	\$122,005	\$2,231,369	\$10,023,829	\$12,377,203
Other Adjustments	-\$356,771,	-746,776	3,424,764	\$2,321,217
Total Uprate 366.93 Revenue Requirements	-\$244,765	\$2,379,874	\$13,871,686	\$16,006,795
Levy 2011 Uprate Revenue Requirement Summary				
	2009 True-Up	2010 A/E True-Up	2011 Projected	Total
Site Selection & Preconstruction	-\$8,749,309	\$11,835,352	\$25,056,735	\$28,142,778
O&M	-\$911,232	-\$745,625	\$3,823,883	\$2,167,026
Carrying Costs	\$13,845,741	-\$2,968,249	\$46,378,950	\$57,256,442
Other	\$7,619			\$7,619
Total Levy 366.93 Revenue Requirements	\$4,192,819	\$8,121,478	\$75,259,568	\$87,573,865
Plus 2011 Amortization of Proposed Deferral		\$	\$60,000,000	\$60,000,000
Proposed Levy 366.93 Revenue Requirements				\$147,573,865
Proposed NCRC Revenue Requirement for 2011 CCRC				\$163,580,660

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Index of Orders

1. Order No. PSC-07-0119-FOF-EI, issued February 8, 2007, in Docket No. 060642-EI, granted the need for the extended power uprate of PEF's Crystal River 3 nuclear power plant and exemption from Bid Rule 25-22.082, F.A.C.
2. Order No. PSC-07-0240-FOF-EI, issued March 20, 2007, in Docket No. 060508-EI, adopted new Rule 25-6.0423, F.A.C., implementing Section 366.93, F.S.
3. Order No. PSC-08-0021-FOF-EI, issued January 7, 2008, in Docket No. 070602-EI, granted the need for the extended power uprate of FPL's Turkey Point and St. Lucie nuclear power plants, exemption from Bid Rule 25-22.082, F.A.C., and applicability of Rule 25-6.0423, F.A.C.
4. Order No. PSC-08-0038-FOF-EI, issued January 15, 2008, in Docket No. 070672-EI, adopted amendments to Rules 25-6.0423, and 25-22.081, F.A.C., implementing changes to Section 366.93, F.S., to include integrated gasification combined cycle power plants.
5. Order No. PSC-08-0237-FOF-EI, issued April 11, 2008, in Docket No. 070650-EI, granted the need for FPL's Turkey Point Nuclear Units 6 and 7.
6. Order No. PSC-08-0295-DS-EI, issued May 5, 2008, in Docket No. 080083-EI, granted FPL's request for a declaratory statement that "advance payments made prior to the completion of site clearing work are properly characterized as preconstruction costs to be recovered pursuant to the mechanism provided in Rule 25-6.0423, F.A.C."
7. Order No. PSC-08-0518-FOF-EI, issued August 12, 2008, in Docket No. 080148-EI, granted the need for PEF's Levy Units 1 and 2 nuclear power plants.
8. Order No. PSC-08-0749-FOF-EI, issued November 12, 2008, in Docket No. 080009-EI, approved 2009 CCRC recovery amounts for PEF and FPL (first year of roll-over docket).
9. Order No. PSC-08-0779-TRF-EI, issued November 26, 2008, in Docket No. 080603-EI, approved a base rate increase for costs associated with the measurement uncertainty recapture phase of PEF's CR3 Uprate project, pursuant to Section 366.93(4), F.S., and Rule 25-6.0423(7), F.A.C.
10. Order No. PSC-09-0208-PAA-EI, issued April 6, 2009, in Docket No. 090001-EI, granted PEF's petition for a mid-course correction to their Capacity Cost Recovery Clause factor, and deferred recovery of \$198 million in LNP site selection and preconstruction expenses.

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Index of Orders (continued)

11. Order No. PSC-09-0689-PAA-EI, issued October 15, 2009, in Docket No. 090009-EI, granted PEF and FPL a variance from or partial waiver of Rule 25-6.0423(5)(c)4, F.A.C., requiring the utilities to submit revisions to all necessary CCRC filings "no later than October 15 of the current year."
12. Order No. PSC-09-0783-FOF-EI, issued November 19, 2009, in Docket No. 090009-EI, approved 2010 CCRC recovery amounts for PEF and FPL (second year of roll-over docket).
13. Order No. PSC-09-0837-PAA-EI, issued December 21, 2009, in Docket No. 090421-EI, approved a base rate increase for certain costs associated with PEF's CR3 Uprate project, pursuant to Section 366.93(4), F.S., and Rule 25-6.0423(7), F.A.C.
14. Order No. PSC-10-0207-PAA-EI, issued April 5, 2010, in Docket No. 090529-EI, approved a base rate increase for certain costs associated with FPL's extended power uprate project, pursuant to Section 366.94(4), F.S., and Rule 25-6.0423(7), F.A.C.