

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 120009-EI  
FLORIDA POWER & LIGHT COMPANY

IN RE: NUCLEAR POWER PLANT COST RECOVERY AMOUNT  
TO BE RECOVERED DURING THE PERIOD  
JANUARY - DECEMBER 2013

REBUTTAL TESTIMONY OF:

JOHN J. REED

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FPSC-COMMISSION CLERK

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5                                   **July 9, 2012**

6   **Q.    Please state your name and business address.**

7   A.    My name is John J. Reed. My business address is 293 Boston Post Road West,  
8        Marlborough, Massachusetts 01752.

9   **Q.    Have you previously filed direct testimony in this proceeding?**

10 A.    Yes, I have.

11 **Q.    Please state the purpose of your rebuttal testimony.**

12 A.    I have been asked by FPL to respond to portions of the Florida Public Service  
13 Commission's (the "Commission") Audit Staff's Review of FPL's Project Management  
14 Internal Controls for Nuclear Plant Uprate and Construction Projects (the "Staff Audit  
15 Report"). Specifically, FPL has asked me to assess Staff's recommended cost disallowance  
16 of \$3.5 million due to a vendor-caused work stoppage, as well as Staff's concerns regarding  
17 FPL's Engineering, Procurement and Construction ("EPC") vendor. FPL has also asked me  
18 to respond to portions of the direct testimony of William Jacobs, submitted on behalf of the  
19 Florida Office of the Public Counsel ("OPC"). I will address Dr. Jacobs's recommendation  
20 that the Commission consider the Turkey Point ("PTN") and St. Lucie ("PSL") Extended  
21 Power Uprates ("EPU") separately, as well as his recommendation that the Commission  
22 disallow all EPU Project costs expended at PTN that are greater than a recent cost forecast  
23 for that plant.

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1 **Q. Please summarize your conclusions regarding Staff's recommended disallowance**  
2 **and Staff's concerns regarding the EPC vendor.**

3 A. In my view, Staff's recommended disallowance is inconsistent with a reasonable application  
4 of the prudence standard. A reasonable application of the prudence standard involves  
5 evaluating decisions, actions, and outcomes within FPL's control. The prudence standard  
6 also considers a range of reasonable behavior given the circumstances, and requires an  
7 exclusion of hindsight. Staff's recommended disallowance, however, fails to focus strictly on  
8 those items and factors within the Company's control, does not allow for a range of  
9 reasonable behavior, and relies on hindsight.

10 Staff also expressed concerns regarding the potential for future project delays and  
11 cost increases caused by the EPC vendor, Bechtel. It is my opinion that such concerns are  
12 misplaced for many of the same reasons I disagree with Staff's recommended cost  
13 disallowance. Specifically, Staff has not focused on the reasonableness of the Company's  
14 decisions and actions for those items within FPL's control. In a reasonable application of  
15 the prudence standard, specific facts related to management decisions or actions that are  
16 under the subject company's control should be evaluated with consideration of a range of  
17 reasonable behavior based on the circumstances that were known or knowable at the time of  
18 the decisions or actions. In these instances, however, Staff is looking beyond the  
19 reasonableness of the Company's actions and reactions as they relate to its contractors,  
20 which places an unreasonable standard of prudence on FPL.

21 **Q. Please summarize your conclusions regarding the direct testimony of OPC Witness**  
22 **Jacobs.**

23 A. It is my opinion that Witness Jacobs's recommendation regarding the disallowance of costs  
24 also puts the Company in the position in which recovery of costs is not determined by FPL's

1 actions, but rather is determined by factors that are outside of its control. For that reason, I  
2 conclude that the Commission should reject Witness Jacobs's recommendations regarding  
3 placing a cap on FPL's recoverable costs.

4 I also disagree with the recommendation that PTN and PSL be considered  
5 separately. Considering either plant on its own would reverse the Commission's prior  
6 approach for approving the project and its expenditures, upon which FPL has relied in its  
7 continued management and implementation of the EPU Project, and would fail to account  
8 for the economies of scale and other advantages of conducting the uprates at the two plants  
9 simultaneously. In that regard, OPC Witness Jacobs calls on the Commission to make a  
10 virtually last minute change in its policies that violates certain core tenants of the prudence  
11 standard.

12 **Q. How is the remainder of your testimony organized?**

13 A. My testimony is organized in two sections. I address the Commission Staff's  
14 recommendations pertaining to the PSL outage and FPL's EPC contractor in Section I. In  
15 Section II, I address the recommendations made by OPC Witness Jacobs.

16  
17 Section I: Response to the Staff Audit Report

18 **Q. Please provide an overview of the work stoppage for which Staff is recommending a**  
19 **cost disallowance.**

20 A. As described in my Direct Testimony, an error by Siemens, the vendor that is performing  
21 the turbine generator upgrade work as part of the EPU Project at PSL, led to a delay in the  
22 spring 2011 outage at PSL Unit 2. Specifically, it was determined that a tool was left inside  
23 the generator stator core by Siemens personnel after work had been completed on that piece

1 of equipment. That tool caused damage to the equipment during post-modification testing.  
2 FPL incurred \$3.5 million in unforeseen costs required as a consequence of that incident.

3 **Q. What are the relevant decisions and actions by FPL related to this matter that should**  
4 **be evaluated by the Commission?**

5 A. The relevant decisions and actions by FPL related to this matter are those decisions and  
6 actions that were within the Company's control. Those decisions and actions included: (1)  
7 FPL's selection of Siemens to perform the turbine generator upgrade work; (2) the decision  
8 to have the work performed under a highly detailed contract; and (3) FPL's reliance on  
9 Siemens's procedures, training, and oversight for the turbine generator upgrade, including  
10 Siemens's tool accountability and control. The control and oversight failures that Staff  
11 alleges were the responsibility of FPL were in fact those of its vendor, whose knowledge and  
12 expertise were appropriately relied upon by the Company.

13 **Q. The Audit Staff's report suggests that FPL, as the owner, bears strict liability for a**  
14 **vendor-caused error. Do you agree?**

15 A. No, I do not. FPL, as the owner and licensee at PTN and PSL, is ultimately responsible for  
16 the safe operations of the facilities, and must apply effective oversight of contractors that  
17 perform work at the facilities on behalf of the Company. However, Staff has improperly  
18 extended that responsibility to impute the actions of its vendor to FPL. In addition, Staff  
19 has taken management and safety principles outlined in a DOE-sponsored publication and  
20 in a 2004 speech by Company Witness Diaz out of context and improperly applied them to  
21 the concept of cost recovery in this proceeding.

22 **Q. Please discuss the DOE-sponsored publication.**

23 A. The Staff Audit Report references a 2005 publication sponsored by the Department of  
24 Energy ("DOE") in Staff's argument that strict cost liability for the outage extension at PSL

1 lies with the Company. That publication was developed to evaluate implementation of  
2 recommendations that had previously been made with respect to DOE's management of  
3 DOE projects. The DOE does not own or operate any commercial nuclear power plants.  
4 As such, I do not see how this document is authoritative or relevant to reasonable nuclear  
5 power plant managers' decision-making. Nor have I seen that document offered as such an  
6 authority in my experience. In addition, the DOE publication is focused on project  
7 management techniques, not on issues that specifically address prudence and recovery of  
8 project-related costs. In any event, the DOE report states that one appropriate method of  
9 risk mitigation is transference of risk to others through a contracting strategy.<sup>1</sup>

10 The Commission, in prior proceedings, has implicitly approved the FPL approach to  
11 contracting for the EPU Project. That contracting approach does not involve a "self  
12 perform" model, but rather includes the engagement of well qualified and experienced  
13 vendors to manage and implement key aspects of the EPU Project. As I have discussed  
14 above, FPL is responsible for selecting qualified vendors that are capable of, and have core  
15 competencies in, elements of the project, and for properly managing those vendors, as called  
16 for under the terms of the EPC contract. While FPL continues to evaluate the performance  
17 and risk management strategies used by its vendors during the execution of the EPU Project,  
18 the monitoring and use of highly specialized, state of the art tools and equipment is clearly  
19 the responsibility of the construction and engineering vendor, not the Company, as specified  
20 in the Siemens agreement.

21 **Q. Please also discuss the 2004 speech made by Company Witness Diaz.**

22 **A.** The Staff Report also references remarks made by Company Witness Diaz in 2004 when he  
23 was Chairman of the U.S. Nuclear Regulatory Commission ("NRC"). As discussed in the  
24 rebuttal testimony of Company Witness Diaz, those remarks were not made in the context

1 of cost recovery and the economics of regulation, but instead were focused on the owner's  
2 responsibilities for the actions of its vendors in the context of operational safety and  
3 security. Those concepts are very different as are the governing standards. The U.S. nuclear  
4 industry and the NRC apply an absolute standard of owner responsibility for safety  
5 management and operational safety, while the prudence standard, as it relates to economic  
6 regulation and cost recovery, considers a range of reasonable behavior, give the  
7 circumstances. The range of reasonable behavior concept embodied in the prudence  
8 standard also recognizes that capital projects such as the EPU Project are not risk free, nor  
9 does it apply a standard of perfection to utility decision-making or performance.

10 **Q. What would be the effect of eliminating economic risk from the EPU Project?**

11 A. The effect of eliminating economic risk from the EPU Project would be significant and most  
12 likely uneconomic increases in project cost. For instance, in order for Siemens to accept  
13 unlimited liability for events such as the alignment pin issue (which, to begin with, might be  
14 an untenable contract condition from Siemens's perspective), Siemens would undoubtedly  
15 require a significantly greater contract price and more restrictive contract terms.

16 **Q. Has the Commission specifically evaluated the prudence of FPL's vendor  
17 management in the past?**

18 A. Yes it has. In Order No. PSC-11-0547-FOF-EI, issued at the conclusion of last year's  
19 Nuclear Cost Recovery Clause ("NCRC") proceeding, the Commission considered issues of  
20 prudence surrounding brief work stoppages that occurred in 2010 and early 2011. The  
21 Commission found that the Company's actions surrounding project management and  
22 controls were prudent:

23 We find that the recoverability of the work stoppage related costs  
24 concern raised by our audit staff witnesses hinges on whether FPL  
25 was prudent in training and oversight prior to work stoppages and its  
26 response to the facts surrounding the work stoppage. We note that

1           our audit staffs testimony identifies no error or deficiency in FPL's  
2           procedures, policies, or other management related controls. As noted  
3           above, witness Derrickson attested to reviewing FPL's response to  
4           each work stoppage and he found no evidence of imprudence.<sup>2</sup>

5           It is important to note that the Root Cause Evaluation (“RCE”) performed after the  
6           alignment pin event did not determine FPL’s oversight of Siemens to be either a root cause  
7           or a contributing cause of the error.<sup>3</sup>

8   **Q.    What is an appropriate application of the prudence standard as it relates to this**  
9   **event?**

10  A.    An appropriate application of the prudence standard: (1) identifies what was reasonably  
11       known or knowable by FPL at the time of its decisions or actions and given the specific  
12       circumstances faced by the Company; (2) does not use hindsight to identify what the prudent  
13       course of action would have been based on the end result of management’s decisions; and  
14       (3) considers a range of reasonable behavior regarding elements of the EPU Project that are  
15       within FPL’s control. In my opinion, according to those principles, the decisions and  
16       actions of FPL as they related to this incident were reasonable and prudent.

17  **Q.    Has that standard of prudence been adopted by the Commission?**

18  A.    Yes. As stated in my Direct Testimony, the Commission has adopted the following standard  
19       of prudence (Order No. PSC-09-0783-FOF-ED):

20           The applicable standard for determining prudence is consideration of  
21           what a reasonable utility manager would have done in light of  
22           conditions and circumstances which were known or reasonably  
23           should have been known at the time decisions were made.

24       Important to that definition of the prudence standard is the consideration of the “conditions  
25       and circumstances” faced at the time of decision-making. An important condition in this  
26       case is the nature of the contract between FPL and Siemens, as well as the level of



1 responsibility FPL reasonably delegated to the vendor and relied upon in overseeing the  
2 project.

3 **Q. Have other commissions applied similar standards of prudence?**

4 A. Yes. For example, a similar standard was applied by the Minnesota Public Utilities  
5 Commission, which stated:

6 The [prudence] test examines the Company's prudence, *i.e.* whether  
7 the Company exercised the care that a reasonable person would  
8 exercise under the same circumstances at the time the decision was  
9 made.<sup>4</sup>

10 The Federal Energy Regulatory Commission ("FERC") also offered a consistent view of the  
11 prudence standard in 1984 by stating the following:

12 We note that while in hindsight it may be clear that a management  
13 decision was wrong, our task is to review the prudence of the utility's  
14 action and the cost resulting there from based on the particular  
15 circumstances existing either at the time the challenged costs were  
16 actually incurred, or the time the utility became committed to incur  
17 those expenses.<sup>5</sup>

18 Lastly, the New York Public Service Commission shared similar observations when  
19 reviewing Consolidated Edison Company of New York's Indian Point 2 nuclear plant.

20 The Company's conduct should be judged by asking whether the  
21 conduct was reasonable at the time, under all the circumstances,  
22 considering that the company had to solve its problems prospectively  
23 rather than in reliance on hindsight. In effect, our responsibility is to  
24 determine how reasonable people would have performed the tasks  
25 that confronted the company.<sup>6</sup>

26  
27 **Q. Were the selection of Siemens, the negotiation of and reliance on a highly detailed  
28 contract, and the reliance on the vendor's procedures, training, and oversight all  
29 decisions that were prudent and within FPL's control?**

30 A. Yes, I believe they were. As described by Company Witness Jones, Siemens was clearly an  
31 appropriate vendor to engage for the turbine generator upgrade work, and in my experience  
32 the contract terms with regards to limitations on liability were standard for the industry.

1 Furthermore, the Siemens contract was entered into in 2008, and has never been the subject  
2 of a disallowance in previous NCRC proceedings. In addition, the nature of the contract  
3 (*i.e.*, a highly detailed contract) vested Siemens with the responsibility for control and  
4 oversight of the alignment pin toolset. FPL reasonably relied upon the vendor to design and  
5 follow procedures and controls for a toolset that had been in place for 18 months and was  
6 successfully used by Siemens at other sites. Staff's assertion that FPL acted imprudently by  
7 failing to detect a vendor-supplied tool control deficiency suggests a level of owner  
8 responsibility infallibility that is clearly outside a reasonable application of the prudence  
9 standard for a contract such as this. As noted above, the RCE performed after the outage  
10 event did not find that FPL's oversight of Siemens was a root cause or a contributing cause  
11 of the error.

12 **Q. With regard to Staff's concerns regarding Bechtel, the EPC vendor, why do you state**  
13 **such concerns are misplaced?**

14 A. It is my opinion that such concerns are misplaced because Staff is focusing not on FPL's  
15 oversight and management of the EPC contract (*i.e.*, those elements within the Company's  
16 control) but rather on the performance of the vendor. In my opinion, decisions and actions  
17 are prudent or imprudent, not results or costs. The appropriate decisions and actions made  
18 by FPL as they relate to the EPC vendor include: (1) FPL's decision to engage Bechtel as the  
19 EPC; (2) the formation of the Bechtel contract; (3) FPL's oversight of Bechtel; and (4) the  
20 decision to maintain Bechtel as the EPC vendor. The first two decisions and actions  
21 happened prior to the period under review in this proceeding, and were not the subject of  
22 any disallowance by the Commission. I provided details on the third decision or action (*i.e.*,  
23 FPL's oversight of Bechtel) in my Direct Testimony. That discussion included reference to  
24 FPL's application of rigorous oversight and management of the EPC vendor, including

1 modifying the incentive structure and bringing in vendors with specialized experience to  
2 assist with project management and to subcontract to the EPC. I believe that FPL continues  
3 to prudently manage the EPC contract. Lastly, in my opinion, FPL's decision to maintain  
4 Bechtel as the EPC vendor was prudent. The alternative, of course, would be to self-  
5 perform the remainder of the project or replace Bechtel with another firm, either of which  
6 could have highly adverse effects on the budget and schedule of the project at this late stage  
7 of implementation.

8 **Q. Do you have any further comment regarding Staff's recommendations and concerns?**

9 A. Yes. Much of the information related to the Siemens and Bechtel contracts that was cited by  
10 Staff comes from FPL's and its vendors' quality control and oversight of the EPU Project.  
11 Reviews and reports such as the RCE of the Siemens error and the Contractor Evaluation  
12 Report of Bechtel demonstrate a culture that strives for continued learning and  
13 improvement. Such a culture promotes candid reviews of issues as they arise and  
14 encourages employees to step forward and challenge the status quo. In my opinion, the  
15 information that is gained from those reviews and evaluations provides transparency for  
16 management as to the implementation of the EPU Project, and is invaluable to the ongoing  
17 oversight of the project.

18 However, I am concerned that a cost disallowance that applies hindsight by relying  
19 on the results of an after-the-fact candid assessment of an event could discourage forthright  
20 assessments and improvements critical to the safe implementation of complex projects such  
21 as the EPU Project. Reports such as RCEs intentionally apply hindsight in order to provide  
22 assurance that negative events are not repeated. If that hindsight is misused in a regulatory  
23 context, an incentive will be created to diminish the transparency of such reports. Such an  
24 incentive would detract from the Company's ability to learn and improve from past events.

1 Section II: Response to OPC Witness Jacobs

2 **Q. Please summarize this section of your testimony.**

3 A. In this section of my rebuttal testimony I address OPC Witness Jacobs's recommendation  
4 that the Commission consider the costs and feasibility of the PTN and PSL EPU work  
5 separately, rather than as one project. I also explain why Witness Jacobs's recommendation  
6 that the Commission implement a hard cap on costs to complete the PTN uprate would  
7 violate the prudence standard that has been affirmed by the Commission in prior NCRC  
8 proceedings.

9 **Q. Do you agree with Witness Jacobs's recommendation that the Commission should**  
10 **split the EPU work apart for economic analysis?**

11 A. No, I do not. As is discussed in greater detail by Company Witness Jones, there are several  
12 notable advantages of treating the PTN and PSL uprates as a single integrated project. Mr.  
13 Jones discusses the contracting and engineering cost efficiencies of conducting the uprates  
14 together as one project in his rebuttal testimony. In addition, revising the feasibility  
15 approach would also violate the prudence standard that has been established by the  
16 Commission by revisiting actions, decisions, and evidence that has been the subject of prior  
17 NCRC hearing cycles.

18 **Q. How has the Commission handled its consideration of the PTN and PSL EPU**  
19 **Project in the past?**

20 A. The Commission approved the combined project on its merits in 2008, and has approved  
21 the combined project's prudently-incurred costs through the NCRC proceeding every year  
22 since. To change course on this matter today, in an advanced stage of project development,  
23 would be a significant departure from the regulatory approach that has defined the

1 Company's actions throughout the Project, and upon which FPL has relied in implementing  
2 the Project.

3 **Q. Witness Jacobs recommends that all PTN uprate costs above a recent cost forecast**  
4 **be disallowed, if and when such costs are incurred. Do you agree with that**  
5 **recommendation?**

6 A. No, I do not. Witness Jacobs's recommendation would prevent the Commission from  
7 evaluating the specific actions and decisions made by FPL and their attendant cost impacts.  
8 Placing a hard cap on the costs to be recovered by FPL would also put FPL at risk for cost  
9 disallowances regardless of the source of those costs, and absent due process regarding the  
10 specific activities undertaken in the EPU Project.

11 **Q. Is OPC Witness Jacobs's recommendation consistent with the Nuclear Cost**  
12 **Recovery Rule?**

13 A. No. The Nuclear Cost Recovery Rule states that alternative cost recovery mechanisms shall  
14 "promote electric utility investment in nuclear or integrated gasification combined cycle  
15 power plants and allow for the recovery in rates of all such prudently incurred costs."<sup>7</sup> The  
16 Nuclear Cost Recovery Rule further states, "[s]uch costs shall not be subject to disallowance  
17 or further prudence review."<sup>8</sup> OPC Witness Jacobs's recommendation, however, would  
18 essentially bypass the prudence review process. By placing a cap on expenditures, FPL  
19 would be at risk of not recovering costs even if they were prudently incurred.

20 **Q. Please explain.**

21 A. By recommending both the setting of a strict cost benchmark for completion of the EPU  
22 Project and disallowing any costs above that level — regardless of the Commission's views  
23 on the prudence or imprudence of the actions of the utility — Witness Jacobs ignores  
24 provisions of the Nuclear Cost Recovery rule and calls for abandonment of the prudence

1 standard and the framework that has been established by the Florida Legislature and the  
2 Commission, within which the Commission has the opportunity to address and review  
3 ongoing capital projects, and ensure that ratepayers bear only prudently incurred expenses.

4 **Q. Does this conclude your testimony?**

5 A. Yes it does.

## Endnotes:

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- <sup>1</sup> The Owner's Role in Project Risk Management, Board of Infrastructure and the Constructed Environment, National Academies Press, 2005, at 8.
  - <sup>2</sup> Florida Public Service Commission, Order No. PSC-11-0547-FOF-EI. November 23, 2011.
  - <sup>3</sup> Root Cause Evaluation, Condition Report 1619410.
  - <sup>4</sup> *Re Interstate Power Company*, Docket No. E-001/GR-91-605, Findings Of Fact, Conclusions Of Law, And Order, 136 P.U.R.4th 21, 34; 1992 WL 348061 at 15 (June 12, 1992); *affid. Petition of Interstate Power Co.*, 416 N.W.2d 800 (Minn. App. 1987).
  - <sup>5</sup> Decision of the Federal Energy Regulatory Commission, In Re: New England Power Company, 31 FERC 61,047.
  - <sup>6</sup> Decision of the New York Public Service Commission, In Re: Consolidated Edison Company, Opinion 79-1, January 16, 1979, Case No. 27123.
  - <sup>7</sup> Nuclear Power Plant Cost Recovery Rule, Section 25-6.0423, F.A.C.
  - <sup>8</sup> *Ibid.*