

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Nuclear Cost Recovery
Clause**

**DOCKET NO. 100009
Submitted for filing:
April 30, 2010**

REDACTED

**DIRECT TESTIMONY OF SUE HARDISON
IN SUPPORT OF ACTUAL/ESTIMATED AND PROJECTED COSTS**

**ON BEHALF OF
PROGRESS ENERGY FLORIDA**

COM 5
APA 5
ECR 5
GCL 1
RAD +
SSC
ADM
OPC
CLK *at Rep.*

DOCUMENT NUMBER-DATE

03568 APR 30 2010

FPSC-COMMISSION CLERK

IN RE: NUCLEAR COST RECOVERY CLAUSE

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. 100009

DIRECT TESTIMONY OF SUE HARDISON

1 **I. INTRODUCTION AND QUALIFICATIONS**

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

3 A. My name is Sue Hardison. My business address is 100 East Davie Street, TPP
4 11A1, Raleigh, NC 27601.

5

6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by Progress Energy Carolinas ("PEC") in the capacity of General
8 Manager – Corporate Development Group Business Services.

9

10 **Q. What are your responsibilities as the General Manager – Corporate**
11 **Development Group Business Services?**

12 A. As General Manager, I am responsible for providing business support for the
13 Corporate Development Group, including budgeting, capital planning and cost
14 management. I am also responsible for project controls and contract
15 administration for the Corporate Development Group.

16

17

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

Q. Please summarize your educational background and work experience.

A. I have a Bachelor of Arts degree in both Economics and Accounting from North Carolina State University. I am a licensed Certified Public Accountant in the State of North Carolina. I have been with Progress Energy – and formerly Carolina Power & Light – for nearly 23 years. I have held various accounting, business management and support services roles in several departments in the Company, including Treasury, Accounting, Nuclear Generation, Energy Delivery and Plant Construction. I have been a manager in the Company since 1995. Prior to joining the Company, I spent five years in public accounting, holding staff positions in both a local firm and a ‘Big 8’ firm.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to support the Company’s request for cost recovery pursuant to the Nuclear Cost Recovery Rule, for the costs it incurred for the Levy Nuclear Project (“LNP”). My testimony supports the Company’s actual/estimated and projected costs for 2010 and 2011.

Q. Have you previously filed testimony in this docket?

A. Yes, I filed testimony on March 1, 2010 in support of the actual costs incurred in 2009 for the LNP.

1 **Q. Do you have any exhibits to your testimony?**

2 A. No, however, I am sponsoring portions of the schedules attached to Thomas G.
3 Foster's testimony. Specifically, I am co-sponsoring portions of Schedules AE-4,
4 AE-4A, and AE-6 and sponsoring Schedules AE-6A through AE-7B of the
5 Nuclear Filing Requirements ("NFRs"), included as part of Exhibit No. ___ (TGF-
6 1) to Thomas G. Foster's testimony. I will also be co-sponsoring portions of
7 Schedules P-4 and P-6 and sponsoring Schedules P-6A through P-7B included as
8 part of Exhibit No. ___ (TGF-2) to Mr. Foster's testimony, and co-sponsoring
9 Schedules TOR-4, TOR-6, and TOR-6A which is Exhibit No. ___ (TGF-3) to Mr.
10 Foster's testimony. A description of these Schedules follows:

- 11 • Schedule AE-4 reflects Capacity Cost Recovery Clause ("CCRC") recoverable
12 Operations and Maintenance ("O&M") expenditures for the period.
- 13 • Schedule AE-4A reflects CCRC recoverable O&M expenditure variance
14 explanations for the period.
- 15 • Schedule AE-6 reflects actual/estimated monthly expenditures for site selection,
16 preconstruction and construction cost for the period.
- 17 • Schedule AE-6A reflects descriptions of the major tasks.
- 18 • Schedule AE-6B reflects annual variance explanations.
- 19 • Schedule AE-7 reflects contracts executed in excess of \$1.0 million.
- 20 • Schedule AE-7A reflects details pertaining to the contracts executed in excess of
21 \$1.0 million.
- 22 • Schedule AE-7B reflects contracts executed in excess of \$250,000, yet less than
23 \$1.0 million.

- 1 • Schedule P-4 reflects CCRC recoverable O&M expenditures for the projected
- 2 period.
- 3 • Schedule P-6 reflects projected monthly expenditures for preconstruction and
- 4 construction costs for the period.
- 5 • Schedule P-6A reflects descriptions of the major tasks.
- 6 • Schedule P-7 reflects contracts executed in excess of \$1.0 million.
- 7 • Schedule P-7A reflects details pertaining to the contracts executed in excess of
- 8 \$1.0 million.
- 9 • Schedule P-7B reflects contracts executed in excess of \$250,000, yet less than
- 10 \$1.0 million.
- 11 • Schedule TOR-4 reflects CCRC recoverable actual to date and projected O&M
- 12 expenditures for the duration of the project.
- 13 • Schedule TOR-6 reflects actual to date and projected annual expenditures for site
- 14 selection, preconstruction and construction costs for the duration of the project.
- 15 • Schedule TOR-6A reflects descriptions of the major tasks.

16 These schedules are true and accurate.

17

18 **Q. Please summarize your testimony.**

19 **A.** In 2010, PEF has incurred and will continue to incur reasonable costs for work on

20 its Combined Operating License Application (“COLA”) to the Nuclear

21 Regulatory Commission (“NRC”) and work related to the conditions for its Site

22 Certification Application (“SCA”), which was approved by the Governor and

23 Cabinet sitting as the Siting Board. This work is necessary to obtain the required

1 licenses and permits for the LNP. In addition, under its Engineering, Procurement
2 and Construction Agreement (“EPC Agreement”) entered into with Westinghouse
3 and Shaw, Stone and Webster (the “Consortium”), PEF incurred and will continue
4 to incur various costs for long lead material items and purchase order
5 management and disposition as discussed in the testimony of Mr. John Elnitsky
6 filed in this docket.

7 As demonstrated in my testimony and the NFRs filed as exhibits to Mr.
8 Foster’s testimony, PEF took adequate steps to ensure that the costs it incurred
9 were reasonable and prudent. PEF has also provided reasonable projections for
10 costs to be incurred during the remainder of 2010 and all of 2011. These costs
11 include owner scope of work for continued COLA and SCA-related license and
12 permit activities for the LNP. This also includes continued work with the
13 Consortium under Amendment 3 to the EPC Agreement to efficiently address
14 long lead material items and other purchase orders, work to support the AP1000
15 design, certain land acquisitions, and to continue project management through the
16 period before the LNP Combined Operating License (“COL”) is obtained for the
17 project from the NRC. The costs of this work are necessary for the LNP and
18 therefore reasonable.

19
20 **Q. Please briefly describe the Levy Nuclear Project.**

21 **A.** The LNP involves the planned construction of two state-of-the-art Westinghouse
22 AP1000 Advanced Passive nuclear power plants in Levy County, Florida and
23 associated transmission facilities to meet the Company’s generation capacity

1 needs. The LNP will provide needed base load generation from a clean, carbon-
2 free generation resource that enhances the Company's fuel diversity and reduces
3 PEF's and the State of Florida's dependence on fuel oil and natural gas to
4 generate electricity.

5
6 **Q. What are the Company's current plans for the LNP?**

7 **A.** The Company's current plans for the LNP are discussed in detail in the testimony
8 of Mr. Lyash and Mr. Elnitsky filed contemporaneously with my testimony. As
9 they explain, the Company worked extensively throughout the end of 2009 and
10 into 2010 negotiating with the Consortium to amend the EPC Agreement to
11 reflect the schedule shift and the decision to focus on obtaining the Levy COL.
12 The Company's costs for the LNP in 2010 and 2011 reflect this Company
13 decision.

14
15 **III. 2010 ACTUAL/ESTIMATED AND 2011 PROJECTED PERIODS**

16 **Q. Can you generally explain what the LNP costs are for 2010 and 2011?**

17 **A.** Yes. As I indicated above, the LNP costs for 2010 and 2011 reflect the
18 Company's decision to focus work on obtaining the COL and other permits for
19 the project and defer most work and capital investment in the project until after
20 the COL is obtained. As a result, PEF has incurred and will continue to incur
21 reasonable costs under the EPC Agreement for purchase order and long lead
22 material disposition management and associated support costs because of the
23 schedule shift in the project. PEF receives and analyzes detailed vendor cost

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

information on an individual purchase order basis to determine optimal disposition by minimizing near-term cost and customer price impact and maintaining supply chain flexibility and then issues a change order as appropriate. PEF also continues its licensing and permit work for the LNP, with Consortium support, including the AP1000 design and engineering, the COLA review with the NRC, the SCA conditions and associated activities with the Florida Department of Environmental Protection (“DEP”), and further related work with other state and federal agencies.

More specifically, for the remainder of 2010 and for 2011, 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 United States Army Corps of Engineers (“USACE”); (3) ongoing Consortium and vendor support for open long-lead material purchase orders and disposition activities; (4) continuing project management and federal and state regulatory support from the Consortium and the Company; (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. All of this work is necessary to the LNP under the current management decision and LNP schedule.

1 **Q. Does PEF have nuclear generation pre-construction costs?**

2 A. Yes. PEF has 2010 actual/estimated and 2011 projected preconstruction costs for
3 the LNP. PEF's total estimated 2010 costs associated with the LNP, excluding
4 transmission costs, are approximately \$ [REDACTED] million. PEF projects its 2011 costs
5 for the LNP, excluding transmission costs, to be approximately [REDACTED] million.

6 Schedule AE-6 of Exhibit No. ___ (TGF-1) to Mr. Foster's testimony,
7 shows generation preconstruction costs for 2010 actual/estimated in the following
8 categories: License Application development costs of [REDACTED] million and
9 Engineering, Design & Procurement costs of [REDACTED] million.

10 Schedule P-6 of Exhibit No. ___ (TGF-2) to Mr. Foster's testimony breaks
11 down the 2011 projected generation pre-construction costs into the following
12 categories: License Application costs of [REDACTED] million and Engineering, Design &
13 Procurement costs of [REDACTED] million.

14
15 **Q. Please describe what the License Application costs are, and why the**
16 **Company has to incur them.**

17 A. These License Application costs are necessary to support the on-going licensing
18 and permit activities for the LNP. This includes the COLA pending before the
19 NRC, the conditions of certification under the LNP SCA, and additional,
20 necessary environmental and other permits for the LNP.

21 The LNP COLA was submitted July 30, 2008 and docketed by the NRC
22 on October 6, 2008. A review schedule for the LNP was issued on February 18,
23 2009 for the three parts of the NRC review leading up to the issuance of the LNP

1 COL: (1) the Final Safety Evaluation Report ("FSER"); (2) the Final
2 Environmental Impact Statement ("FEIS"); and (3) the conclusion of the
3 mandatory hearing and any contested hearing on the LNP COLA before the NRC
4 Atomic Safety and Licensing Board ("ASLB"). The review schedule also
5 provided a schedule for obtaining additional information through Requests for
6 Additional Information ("RAIs") through February 11, 2010. The RAI period
7 was later extended to May 5, 2010, but the RAI process was completed before this
8 new RAI date on March 24, 2010. Since its COLA was docketed, PEF has
9 supported the NRC review process through formally responding to the NRC RAIs
10 and otherwise working with the NRC towards the review and approval of the LNP
11 COLA. For example, the Company is currently supporting a NRC audit in 2010
12 following completion of the formal RAI process. The work supporting the NRC
13 COLA review will continue in 2010 and 2011. Even though the formal RAI
14 process concluded, the NRC may still require additional information prior to
15 issuance of the FSER and FEIS, which are now scheduled for July 2011, and
16 issuance of the COL, which is now expected at the end of 2012 at the earliest.
17 PEF will continue to reasonably incur costs in 2010 and 2011 to support the
18 NRC's review and issuance of the FSER, FEIS, and, ultimately, the COL for the
19 LNP.

20 Additionally, PEF will incur costs to prepare for and participate in the
21 ASLB hearings. A mandatory hearing before the ASLB is required before the
22 COL is issued. Also, there will be a contested hearing since the ASLB allowed
23 three private, anti-nuclear groups to intervene in the LNP NRC COLA docket and

1 admitted parts of three of twelve contentions they raised for hearing. As a result,
2 PEF will reasonably incur costs in 2010 and in 2011 to prepare for and participate
3 in these hearings.

4 PEF is also required to complete Conditions of Certification Reports for
5 the LNP during this period. They include the Barge Canal and Withlacoochee
6 River Monitoring Plan, Crystal Bay Surface Water Monitoring Plan, Discharge
7 Monitoring Plan, and the Wetland Mitigation Plan. We also chose to perform the
8 Floodplain Compensation Plan during this period. Additionally, PEF is involved
9 in the execution of near-term wetland mitigation activities in 2010 and 2011, as
10 well as associated environmental and other permit activities for the LNP. PEF
11 will continue to reasonably incur costs related to these licensing and permit
12 activities.

13 These License Application costs are necessary for the LNP. PEF
14 developed the preconstruction License Application cost estimates on a reasonable
15 licensing and engineering basis, using the best available information to the
16 Company, and consistent with utility industry and PEF practices. For the costs
17 associated with the COLA review and other permit processes, PEF used the terms
18 of its existing contracts as well as updated forecasts, which are provided on a
19 monthly basis by the contractors, to estimate the costs they will incur for the
20 technical and engineering support necessary for these license and permit review
21 processes. In addition, PEF based its projections on known project milestones
22 necessary to obtain the requisite NRC, USACE, and DEP approvals. Because

1 PEF is using actual or expected contract costs, NRC estimates, its own experience
2 and lessons learned, and relevant utility industry insight, PEF's cost estimates for
3 the preconstruction License Application work are reasonable.

4
5 **Q. Please describe what the Engineering, Design & Procurement costs are, and**
6 **explain why the Company has to incur them.**

7 A. PEF must incur certain Engineering, Design & Procurements costs in 2010 and
8 2011 to move forward with the LNP even with the Company's decision
9 addressing the schedule shift in the project. Key work scope in 2010 and 2011 by
10 the Consortium and the Company includes ongoing support for open long lead
11 material purchase orders and disposition activities, design finalization payments
12 to the Consortium, project management office support, and closure status reports
13 for site specific engineering packages. In addition there will be some shared
14 construction program development work such as module design and construction
15 initiatives. With the approval of Amendment 3 to the EPC Agreement, the
16 estimated costs for the Consortium's cost of this work under the EPC Agreement
17 is between [REDACTED] million per year.

18 PEF developed the preconstruction Engineering, Design & Procurement
19 cost estimates on a reasonable engineering basis, using the best available
20 information. To develop the costs, PEF utilized cost information from the EPC
21 Agreement and information obtained through negotiations with the Consortium.
22 Because PEF is using actual or expected contract costs, its own experience, and

1 utility industry practice, PEF's cost estimates for the preconstruction Engineering,
 2 Design & Procurement work are reasonable.

3

4 **Q. Does PEF have generation construction costs?**

5 A. Yes. PEF will have 2010 and 2011 projected Construction costs for nuclear
 6 generation for the LNP. Schedule AE-6 of Exhibit No. __ (TGF-1) to Mr.
 7 Foster's testimony breaks down the 2010 projected generation construction costs
 8 into the following categories: Real Estate Acquisition costs of [REDACTED] million and
 9 Power Block Engineering and Procurement costs of [REDACTED] million. Schedule P-6
 10 of Exhibit No. __ (TGF-2) to Mr. Foster's testimony breaks down the 2011
 11 projected generation construction costs into the following categories: Real Estate
 12 Acquisition costs of [REDACTED] million and Power Block Engineering and Procurement
 13 costs of [REDACTED] million.

14

15 **Q. Please describe what the Real Estate Acquisitions costs are, and explain why**
 16 **the Company has to incur them.**

17 A. Real estate acquisition costs for 2010 will be incurred to purchase property for the
 18 Levy plants access road and barge easement, and for wetland mitigation activities
 19 related to the Waccassa Watershed. For 2011, real estate acquisition costs will be
 20 incurred for periodic payments on the barge easement.

21 Effective December 2009, the Nuclear Plant Development ("NPD") Real
 22 Estate Governance Document (REI-NPDF-00001) was approved. This document
 23 provides guidance for the acquisition of land needed for PEF's nuclear plant

1 development. This document identifies participants; outlines the acquisition
2 procedure and payment process; outlines document tracking, approval, filing,
3 reporting and document management and retention procedures. It was developed
4 to define and formalize the management and execution of acquiring land and land
5 rights and to provide for oversight and management concerning land acquisition.
6 Utilizing these procedures, PEF developed these construction Real Estate
7 Acquisition cost estimates on a reasonable basis, using the best available
8 information, consistent with utility industry and PEF practice.

9
10 **Q. Please describe what the Power Block Engineering and Procurement costs**
11 **are, and explain why the Company has to incur them.**

12 **A.** Power Block Engineering and Procurement costs in both 2010 and 2011 are for
13 contractual progress payments on select long lead material items and associated
14 support work from the Consortium. These long lead materials include Squib
15 Valves, Reactor Coolant Loop Piping, and Variable Frequency Drives. As
16 previously discussed in my March 1, 2010 testimony, each of these items of
17 equipment was individually assessed and a decision was made to move forward
18 on the procurement of the equipment only after determining that the procurement
19 was the most efficient method of addressing the long lead material item given the
20 LNP schedule shift.

21 PEF developed these cost estimates utilizing cost information from the
22 EPC Agreement and from information obtained directly through extensive

1 negotiations with the Consortium. PEF's cost estimates for the construction
2 Power Block Engineering and Procurement work are reasonable.

3
4 **IV. PROJECT MANAGEMENT AND COST CONTROL OVERSIGHT**

5 **Q. Has the Company implemented any additional project management and cost**
6 **control oversight mechanisms for the Levy project, since the testimony you**
7 **filed on March 1, 2010?**

8 A. Yes. Corporate Development Group Business Services will issue its first NPD
9 Project Controls Report in April 2010. The report will be utilized during the
10 partial suspension period until work is restarted and a more robust reporting
11 process will be implemented. The NPD Project Controls Business Services
12 Report provides a summary level status in four key areas: Cost Performance,
13 Schedule, Contract Performance, and Employee Incentive Goal updates. This
14 report contains information that was previously provided in the NPD Performance
15 Report that is now being issued on a quarterly basis. As discussed in my March 1,
16 2010 testimony, in August 2009, PEF formed the Corporate Development Group
17 ("CDG") to bring more focused attention to the review, management, and control
18 of large capital investments, such as the LNP. The NPD Project Controls
19 organization has been reorganized and reports to the General Manager of CDG,
20 Business Services. This reorganization provides dedicated support in the areas of
21 financial, contracts, and project controls management for NPD and other CDG
22 projects and programs. No other new controls have been issued since my March
23 1, 2010 testimony.

1 As discussed in my March 1, 2010 testimony, the Company utilizes
2 several policies and procedures to ensure that costs for the LNP project are
3 reasonably and prudently incurred. For example, procedures in the areas of
4 contract management, procurement, and accounting were revised to incorporate
5 improvement updates in 2009. The Integrated Project Plan (“IPP”) procedure and
6 several quality-related nuclear specific procedures were also revised in 2009.

7 In addition, the LNP is being undertaken by the Company consistent with
8 the project standards established and implemented by Progress Energy’s Project
9 Management Center of Excellence organization (“PMCoE”). The approved
10 procedures implement best practices for all aspects of Project Management.

11 Other corporate tools are used to support the management of the Levy
12 work. The Oracle Financial Systems/Business Objects reporting tool provides
13 monthly corporate budget comparisons to actual cost information, as well as
14 detailed transaction information, which allows PEF to regularly monitor the costs
15 of the generation work compared to budgets and projections.

16 PEF also has several control mechanisms in place to manage the LNP and
17 the costs incurred on the project. For example, the LNP management team has
18 regular, internal meetings. These regular meetings allow the project management
19 team to monitor progress and key performance metrics of the LNP. PEF’s LNP
20 management team also meets regularly with outside contract vendors working on
21 the Levy Project to review issues around contract scope of work, safety, technical
22 items, production progress and the work schedule that falls under the vendor
23 contracts. Financial Services personnel prepare monthly Cost Management

1 Reports that include all contract, labor, equipment, material and other project cost
2 transactions recorded to the LNP. These reports are regularly reviewed by the
3 LNP management team.

4 The Company's procedures are reviewed and revised on an ongoing
5 basis. PEF also uses internal audits to verify that its program management and
6 oversight controls are in place and being implemented. Internal audits are also
7 conducted on outside vendors.

8 These project management policies and procedures reflect the collective
9 experience and knowledge of the Company. These policies and procedures have
10 also been tested by the Company on other capital projects. Any lessons learned
11 from those projects have been incorporated in the current policies and procedures.
12 We believe, therefore, that our project management policies and procedures are
13 consistent with best practices for capital project management in the industry.

14
15 **Q. Does this conclude your testimony?**

16 **A. Yes, it does.**
17