BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Nuclear Cost Recovery

Clause

DOCKET NO. 110009 Submitted for filing: May 2, 2011

REDACTED

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

ON BEHALF OF PROGRESS ENERGY FLORIDA

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IN RE: NUCLEAR COST RECOVERY CLAUSE BY PROGRESS ENERGY FLORIDA FPSC DOCKET NO. 110009

DIRECT TESTIMONY OF SUE HARDISON

1	I.	INTRODUCTION AND QUALIFICATIONS
2 I	Q.	Please state your name and business address.
3	A.	My name is Sue Hardison. My business address is 100 East Davie Street, TPP 19,
4		Raleigh, NC 27601.
5		
6	Q.	By whom are you employed and in what capacity?
7	A.	I am currently employed by Progress Energy Carolinas ("PEC") in the capacity of
8		General Manager - EnergyWise Program Office. I assumed this position with
9		PEC on February 11, 2011.
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11	Q.	Did this change in employment affect your responsibilities for the Levy
12		Nuclear Project?
13	A.	No, not at this time. In 2010 I was the General Manager-Corporate Development
14		Group ("CDG") Business Services. In this role I was accountable for the
15		financial reporting, business, and project controls for CDIG-managed major
16		projects, including the Levy Nuclear Project ("LNP"). I will continue to provide
17		support as needed for the LNP in 2011.
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Ο.	Please summarize	vour e	ducational	background	and work	experience.
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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 24 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' accounting 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 LNP. My testimony supports the Company's actual/estimated and projected costs for 2011 and 2012.

Q. Have you previously filed testimony in this docket?

A. Yes, I filed testimony on March 1, 2011 in support of the actual costs incurred in 2010 for the LNP.

Q. Do you have any exhibits to your testimony?

- A. No, however, I am sponsoring portions of the schedules attached to Thomas G. Foster's testimony. Specifically, I am co-sponsoring portions of Schedules AE-4, AE-4A, and AE-6 and sponsoring Schedules AE-6A through AE-7B of the Nuclear Filing Requirements ("NFRs"), included as part of Exhibit No. __ (TGF-1) to Thomas G. Foster's testimony. I will also be co-sponsoring portions of Schedules P-4 and P-6 and sponsoring Schedules P-6A through P-7B included as part of Exhibit No. __ (TGF-2) to Mr. Foster's testimony, and co-sponsoring Schedules TOR-4, TOR-6, and TOR-6A which is Exhibit No. __ (TGF-3) to Mr. Foster's testimony. A description of these Schedules follows:
- Schedule AE-4 reflects Capacity Cost Recovery Clause ("CCRC") recoverable
 Operations and Maintenance ("O&M") expenditures for the period.
- Schedule AE-4A reflects CCRC recoverable O&M expenditure variance explanations for the period.
- Schedule AE-6 reflects actual/estimated monthly expenditures for site selection,
 preconstruction and construction costs for the period.
- Schedule AE-6A reflects descriptions of the major tasks.
- Schedule AE-6B reflects annual variance explanations.
- Schedule AE-7 reflects contracts executed in excess of \$1.0 million.
- Schedule AE-7A reflects details pertaining to the contracts executed in excess of \$1.0 million.
- Schedule AE-7B reflects contracts executed in excess of \$250,000, yet less than
 \$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.
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18	Q. Please summarize your testimony.
19	A. In 2011 and 2012, PEF has incurred and will continue to incur reasonable costs
20	for work on its Combined Operating License Application ("COLA") to the
21	Nuclear Regulatory Commission ("NRC") and work related to environmental
22	permitting and implementation of the conditions of certification for its Site
23	Certification Application ("SCA"), which was approved by the Governor and

Cabinet sitting as the Siting Board. This work is necessary to obtain the required licenses and permits for the LNP.

In addition, under its Engineering, Procurement, and Construction Agreement ("EPC Agreement") entered into with Westinghouse and Shaw, Stone and Webster (the "Consortium"), PEF incurred and will continue to incur costs for Long Lead Equipment ("LLE") items, associated support costs, and purchase order management and disposition. PEF will also prepare for and commence negotiations of necessary amendments to the EPC Agreement to efficiently end the current partial suspension of the LNP and continue with the LNP work on the anticipated LNP schedule as discussed in the testimony of Mr. John Elnitsky filed in this docket.

In 2011, PEF will begin work on an updated transmission study given the anticipated in-service dates for the LNP. In 2012, PEF will commence work related to detailed transmission design packages. In 2011 and 2012, PEF will continue activity associated with strategic land acquisitions for transmission lines.

As demonstrated in my testimony and the NFRs filed as exhibits to Mr. Foster's testimony, PEF took adequate steps to ensure that the costs it incurred were reasonable and prudent. PEF has also provided reasonable projections for costs to be incurred during the remainder of 2011 and all of 2012. The costs of this work are necessary for the LNP and therefore reasonable.

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Q. Please briefly describe the Levy Nuclear Project ("LNP").

A. The LNP involves the planned construction of two state-of-the-art Westinghouse AP1000 Advanced Passive nuclear power plants in Levy County, Florida and associated transmission facilities to meet the Company's generation capacity needs. The LNP will provide needed base load generation from a clean, carbon-free generation resource that enhances the Company's fuel diversity and reduces PEF's and the State of Florida's dependence on fuel oil and natural gas to generate electricity.

III. 2011 ACTUAL/ESTIMATED AND 2012 PROJECTED PERIODS

Q. Can you generally explain what the LNP costs are for 2011 and 2012?

A. Yes. As I indicated above, the LNP costs for 2011 and 2012 reflect the Company's decision to focus work on obtaining the Combined Operating License ("COL") from the NRC. PEF will continue work related to the conditions for its SCA, work on environmental surveys for the transmission routes and environmental permitting work for the LNP, work on strategic land acquisitions for transmission lines, and will continue work in support of LLE disposition, while deferring most of the capital investment in the project until after the COL is obtained.

More specifically, for 2011 and for 2012, PEF will incur costs related to:
(1) continuing COLA activities with the NRC, which includes completion of the
Roller Compacted Concrete ("RCC") mix design and specialty testing programs
and the submission of structural, seismic, and other Requests for Additional

Information ("RAI") responses for the NRC site specific review of the LNP COLA; (2) completing environmental surveys for the transmission routes and the work on and submittal of the United States Army Corps of Engineers ("USACE") Section 404 permit for the LNP; (3) completing annual LNP COLA update and preparations for the ASLB hearings; (4) continuing work associated with obtaining the Final Environmental Impact Statement ("FEIS") from the NRC and the USACE; (5) completing all LLE change orders to approve the final disposition of LLE purchase orders; (6) commencing the preparations for, and the negotiations of, the EPC Agreement amendment(s) necessary for the Full Notice to Proceed ("FNTP"); (7) continuing AP1000 design support and work; and (8) benchmarking and monitoring of licensing activities at other plants. All of this work is necessary to the LNP under the current management decision and LNP schedule.

The overall scope of the transmission activities planned for the LNP have not materially changed, but PEF will move forward with an updated transmission study. This study is necessary because the state-wide transmission system that the LNP will connect with is not static, but instead changes with PEF and other electric utility resource and transmission system additions. The initial transmission study for the LNP was performed for the Levy units based on inservice dates of 2016 and 2017. As discussed in the testimony of Mr. Elnitsky filed in this docket, now that the Levy units are expected in-service in 2021 and 2022, an updated transmission study must be performed to determine the transmission system impacts of the LNP given the revised in-service dates for

Levy Units 1 and 2 and the changes in the state-wide transmission system. PEF will begin preparations for the updated transmission study in 2011. It is expected that a new transmission study will be completed by late 2012. In 2012, PEF will commence work related to detailed transmission design packages. In 2011 and 2012, PEF will continue activity associated with strategic land acquisitions for transmission lines. This transmission work scope supports PEF's decision to defer most of the transmission activities past receipt of the COL and to reschedule work based on the expected in-service dates for the LNP.

A. Generation.

Q. Does PEF have nuclear generation preconstruction costs?

A. Yes. PEF has 2011 actual/estimated and 2012 projected preconstruction costs for the LNP. Schedule AE-6 of Exhibit No. ___ (TGF-1) to Mr. Foster's testimony, shows actual/estimated generation preconstruction costs for 2011 in the following categories: License Application development costs of ____ and ___ Engineering, Design & Procurement costs of ____ Schedule P-6 of Exhibit No. __ (TGF-2) to Mr. Foster's testimony breaks down the 2012 projected generation preconstruction costs into the following categories: License Application costs of ____ and Engineering, Design & Procurement costs of ____ and Engineering, Design & Procurement costs

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

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

As discussed in the May 2, 2011 testimony of Mr. Elnitsky filed in this docket, the NRC review includes three parts that lead up to the issuance of the LNP COL: (1) the Final Safety Evaluation Report ("FSER"); (2) the FEIS; and (3) the conclusion of the mandatory hearing and any contested hearing on the LNP COLA before the NRC Atomic Safety and Licensing Board ("ASLB"). The issuance of a FSER is preceded by NRC review of the LNP COLA and the NRC's issuance of an Advanced Safety Evaluation Report ("ASER") with no open items. The current NRC milestone for issuance of the ASER is September 2011. The ASER will be reviewed by the Advisory Committee on Reactor Safeguards ("ACRS"). The NRC milestone for the ACRS review and report is January 2012. The ACRS review and report is followed by NRC review and the issuance of a FSER. The NRC milestone target to issue the FSER for the LNP COLA is April 2012. PEF will continue to incur costs to support the NRC SER review before issuance of the FSER for the LNP.

The draft Environmental Impact Statement ("EIS") for the LNP was issued in August 2010 and the public comment period ended on October 27, 2010. The NRC staff responses to the public comments on the LNP draft EIS are due

November 2011. The current NRC milestone for the FEIS is April 2012. PEF will continue to incur costs to support issuance of the FEIS for the LNP.

The ASLB allowed three groups to intervene in PEF's NRC LNP COLA docket and admitted parts of three contentions to the LNP COL. Some of these contentions were subsequently dismissed, but the remaining contentions will go to a final hearing before the ASLB. The Company currently anticipates that the ASLB hearings will start in October 2012. PEF will reasonably incur costs in 2011 and 2012 to prepare for and participate in these hearings.

As discussed in more detail by Mr. Elnitsky, due to regulatory schedule uncertainty at the NRC with respect to the LNP COLA review, we now expect issuance of the LNP COL in mid-2013. PEF will continue to reasonably incur costs in 2011 and 2012 to support the NRC's review and issuance of the FSER, FEIS, and the COL for the LNP.

PEF will also complete environmental surveys for the transmission routes, work supporting submittal of the USACE Section 404 permit, and other conditions of certification and environmental permitting activities for the LNP.

PEF will further provide the NRC with its annual LNP COLA update.

These License Application costs are necessary for the LNP. PEF developed the preconstruction License Application cost estimates on a reasonable licensing and engineering basis, using the best available information to the Company, and consistent with utility industry and PEF practices. For the costs associated with the COLA review and other permit processes, PEF used the terms of its existing contracts as well as updated forecasts, which are provided on a

monthly basis by the contractors, to estimate the costs they will incur for the technical and engineering support necessary for these license and permit review processes. In addition, PEF based its projections on known project milestones necessary to obtain the requisite approvals. Because PEF is using actual or expected contract costs, NRC estimates, and its own experience including industry lessons learned, PEF's cost estimates for the preconstruction License Application work are reasonable.

Q. Can you please describe the reasons for the difference between the system projected amount for 2011 and the system actual/estimated amount for LNP License Application costs?

A. Yes. On April 30, 2010 I filed testimony in Docket No. 100009-EI, including a

projection of License Application costs in 2011 of ________. The actual/estimated costs, as described above, are ________, a variance of ________. The variance is primarily attributable to additional costs and activities in support of providing the NRC responses to open structural, seismic, and other RAIs such as, completing activities for the RCC mix design and specialty testing programs, completing site specific Soil-Structure Interaction ("SSI") and other seismic/structural analyses and costs incurred in support of foundation design calculation revisions.

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

A. PEF must incur certain Engineering, Design & Procurement costs in 2011 and 2012 to move forward with the LNP. Key work scope in 2011 and 2012 by the Consortium and the Company includes completing all LLE negotiations and related change orders, as well as execution, implementation, and oversight of the LLE terms and conditions as described in each approved change order.

As discussed in the testimony of Mr. Elnitsky, the majority of the outstanding LLE information needed for final LLE disposition was provided by the Consortium to PEF on February 1, 2011. Following the receipt of this information, PEF completed its reviews and made its final disposition of all outstanding LLE purchase orders. PEF and the Consortium are in the process of executing change orders to implement PEF's disposition options for the LLE.

In addition to the LLE work, there will be shared module program development work and defined Project Management Organization ("PMO") activities. Also, PEF will commence preparations for, and the negotiations of, the EPC Agreement amendment(s) necessary to terminate the partial suspension terms and establish the basis for a FNTP to move the LNP forward on a schedule with the expected in-service date for Levy Unit 1 in 2021 and Unit 2 in-service eighteen (18) months later in 2022.

PEF developed the preconstruction Engineering, Design & Procurement cost estimates on a reasonable engineering basis, using the best available information. To develop the costs, PEF utilized cost information from the EPC

1	Agreement and information obtained through negotiations with the Consortium.
2	Because PEF is using actual or expected contract costs and a documented detaile
3	qualitative and quantitative analysis to disposition LLE purchase orders, PEF's
4	cost estimates for the preconstruction Engineering, Design & Procurement work
5	are reasonable.
6	
7	Q. Can you please describe the reasons for the difference between the system
8	projected amount for 2011 and the system actual/estimated amount for
9	Engineering, Design & Procurement costs?
10	A. Yes. On April 30, 2010 I filed testimony in Docket No. 100009-EI, including a
11	projection of Engineering, Design & Procurement costs in 2011 of
12	The actual/estimated costs, as described above, are second, a variance of
13	This variance is attributable mainly to the deferred estimated one-
14	time LLE purchase order disposition costs for the
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16	, offset by lower LLE purchase order disposition and PMO support
17	costs, lower PGN labor, expenses, indirects and overheads
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19	Q. Does PEF have generation construction costs?
20	A. Yes. PEF will have 2011actual/estimated and 2012 projected construction costs
21	for nuclear generation for the LNP. Schedule AE-6 of Exhibit No (TGF-1) t
22	Mr. Foster's testimony breaks down the 2011 actual/estimated generation
23	construction costs into the following categories: Real Estate Acquisition costs of

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and Power Block Engineering and Procurement costs of
Schedule P-6 of Exhibit No (TGF-2) to Mr. Foster's testimony breaks down
the 2012 projected generation construction costs into the following categories:
Real Estate Acquisition costs of and Power Block Engineering and
Procurement costs of the costs

- Q. Please describe what the Real Estate Acquisitions costs are, and explain why the Company has to incur them.
- A. For 2011, real estate acquisition costs will be incurred for residual costs to record fees related to the LNP barge slip easement payment made in December 2010. Costs will be incurred in 2012 for a portion of the remaining barge slip easement acquisition. Costs will also be incurred in 2012 to convey the bike trail state lands easement, and to acquire a portion of the Blowdown pipeline easement.

The NGPP Real Estate Governance Document (REI-NPDF-00001) provides guidance for the acquisition of land needed for PEF's nuclear plant development. This document identifies participants; outlines the acquisition procedure and payment process; outlines document tracking, approval, filing, reporting and document management and retention procedures. It was developed to define and formalize the management and execution of acquiring land and land rights and to provide for cost oversight and management concerning land acquisition. This document was updated in December 2010 to incorporate NGPP organization changes and payment process refinements. Utilizing these procedures, PEF developed these construction Real Estate Acquisition cost

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estimates on a reasonable basis, using the best available information, consistent with utility industry and PEF practice.

O. Please describe what the Power Block Engineering and Procurement costs are, and explain why the Company has to incur them.

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A. Power Block Engineering and Procurement costs in both 2011 and 2012 are for contractual milestone payments and incremental storage and shipping, insurance, and warranty costs on select LLE items and associated support work from the Consortium. For example, in 2011, these LLE contract milestone payments include which were executed by EPC Agreement Change Order No. 23 and EPC Change Order No. 22, respectively. Final disposition on other LLE items will be documented in forthcoming change orders. As previously discussed, as a result of these final LLE purchase order dispositions, PEF and the Consortium are executing change orders to implement PEF's LLE disposition options for the remaining LLE items described in Exhibit JE-3 to Mr. Elnitsky's May 2, 2011 testimony. PEF developed these cost estimates utilizing cost information from the

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EPC Agreement and from information obtained directly through extensive

negotiations with the Consortium. PEF's cost estimates for the construction

Power Block Engineering and Procurement work are reasonable.

1	B. <u>Transmission.</u>
2	Q. Does PEF have transmission-related preconstruction costs?
3	A. No.
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5	Q. Does PEF have transmission-related construction costs?
6	A. Yes. PEF will have 2011 actual/estimated and 2012 projected construction costs
7	for the LNP. Schedule AE-6 of Exhibit No (TGF-1) to Mr. Foster's
8	testimony shows transmission construction costs for 2011 actual/estimated in the
9	following categories: Real Estate Acquisition costs of and Other
10	costs of Schedule P-6 of Exhibit No (TGF-2) to Mr. Foster's
11	testimony breaks down the 2012 projected transmission construction costs into the
12	following categories: Real Estate Acquisition costs of and Other
13	costs of
14	
15	Q. Please describe what the Real Estate Acquisition costs are, and why the
16	Company has to incur them.
17	A. In 2011 and 2012, Real Estate Acquisition activity for the LNP includes ongoing
18	costs related to strategic Right-of-Way ("ROW") acquisition for the transmission
19	lines during the partial suspension period. These costs are necessary to ensure
20	that the ROW and other land upon which the transmission facilities will be
21	located are available for the LNP.
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Q. Please describe what Other costs are, and why the Company has to incur them.

- A. For 2011 and 2012, these costs include labor and related indirect costs, overheads and contingency in support of strategic transmission ROW acquisition activities. They also include general project management, project scheduling and cost estimating, legal services and external community relations outreach to local, state, and federal agencies. These construction costs are necessary for the transmission project work in support of the LNP.
- Q. Please describe briefly how the transmission construction cost estimates were prepared.
- A. PEF developed these Real Estate Acquisition and Other transmission construction cost estimates on a reasonable engineering basis, in accordance with the Association for the Advancement of Cost Engineering International ("AACEI") standards, using the best available construction and utility market information at the time, consistent with utility industry and PEF practice. Real estate costs within the project estimates are based on an expected dollar per acre amount based on the type and location of the property using current route selection analysis. The management and indirect costs within the project estimates were developed based on the project schedule and staffing requirements. Costs include PGN labor and related overheads and indirect costs, contingency and escalation related to the inherent risk associated with a conceptual and preliminary design.

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These estimates reasonably reflect the necessary LNP transmission project work for 2011 and 2012.

PROJECT MANAGEMENT AND COST CONTROL OVERSIGHT IV.

- Q. Has the Company implemented any additional project management and cost control oversight mechanisms for the LNP since the testimony you filed on March 1, 2011?
- A. No, there have been no substantial changes to the LNP project management and cost oversight controls since I described the process in my March 1, 2011 testimony in Docket No. 110009. However, there are two additional updates to provide.

First, on March 1, 2011, the project team completed a true-up of the 2010 baseline estimate to reflect actual 2010 costs incurred and to incorporate completed LLE purchase order disposition costs for certain components. Based upon this true-up, there was no change to the overall expected project cost of the LNP, and the estimate approved in 2010 was maintained by the project team.

Second, on March 29, 2011, Progress Energy senior management reviewed an Integrated Project Plan ("IPP") update for the LNP (Revision 3 to the Levy IPP). This IPP was intended to confirm annual spending for 2011 through mid-2012 for the Levy partial suspension and provide an update related to the decision to continue the partial suspension. Management approved the IPP update and confirmed funding for 2011 through mid-2012 on the LNP consistent with the

Company's March 2010 decision to continue with the LNP on a slower pace and defer significant capital investment until after the LNP COL is obtained.

With regard to the Company's policies and procedures discussed in my March 1, 2011 testimony, the Company continues to review policies, procedures, and controls on an ongoing basis and makes revisions and enhancements based on changing business conditions, organizational changes, and lessons learned, as necessary. This process of continuous review of our policies, procedures, and controls is a best practice in our industry and is part of our existing LNP project management and cost control oversight.

Q. Does this conclude your testimony?

A. Yes, it does.