



L-2012-218
10 CFR 52.3

May 16, 2012

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Re: Florida Power & Light Company
Proposed Turkey Point Units 6 and 7
Docket Nos. 52-040 and 52-041
Response to NRC Request for Additional Information Letter No. 057 (eRAI 6367)
Standard Review Plan Section 01 - Introduction and Interfaces

Reference:

1. NRC Letter to FPL dated April 2, 2012, Request for Additional Information Letter No.057 Related to SRP Section 01 – Introduction and Interfaces for the Turkey Point Nuclear Plant Units 6 and 7 Combined License Application

Florida Power & Light Company (FPL) provides, as attachments to this letter, its responses to the Nuclear Regulatory Commission's (NRC) request for additional information (RAI) 01-1 and 01-2 provided in the referenced letter. The attachment identifies changes that will be made in a future revision of the Turkey Point Units 6 and 7 Combined License Application (if applicable).

If you have any questions, or need additional information, please contact me at 561-691-7490.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 16, 2012.

Sincerely,

William Maher
Senior Licensing Director – New Nuclear Projects

WDM/GRM

Attachments:

1. FPL Response to NRC RAI No. 01-1 (eRAI 6367)
2. FPL Response to NRC RAI No. 01-2 (eRAI 6367)

cc:

PTN 6 & 7 Project Manager, AP1000 Projects Branch 1, USNRC DNRL/NRO
Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant 3 & 4

DO97
MRO

NRC RAI Letter No. PTN-RAI-LTR-057

SRP Section: 01 - Introduction and Interfaces

Question from NRC Financial, Policy, & Rulemaking Branch

NRC RAI Number: 01-1 (eRAI 6367)

The COL application provides the information for the estimation of construction costs for a previous year. The estimate of the construction costs needs to be provided pursuant to Part 50, Appendix C, I.A.1. Provide the most recent costs stated in Part 50, Appendix C, I.A.1 in current year dollars. Also, as required by Appendix C, I.A.1 to Title 10 of the Code of Federal Regulations (10 CFR) Part 50, the cost estimate must be accompanied by a statement describing the bases from which the estimate is derived.

FPL RESPONSE:

The construction cost estimate has been updated to 2012 dollars and is provided in the following table, along with the bases for this estimate:

Turkey Point Nuclear Units 6 & 7 Cost Estimate Range				
	Low Range		High Range	
	Total Dollars	Cost per kW	Total Dollars	Cost per kW
Power Plant and Supporting Construction	\$6,202,567,649		\$9,034,535,498	
Transmission and General Plant Costs	\$1,615,537,787		\$2,340,204,748	
Nuclear Fuel Inventory Cost for the First Core*	\$34,998,943		\$42,752,556	
Total Overnight Costs (2012\$)	\$7,853,104,379	\$3,570	\$11,417,492,801	\$5,190
Escalation	\$1,374,646,749		\$2,020,718,864	
AFUDC	\$3,583,932,972		\$5,256,076,173	
Total Estimated Project Cost (Year Spent \$)	\$12,811,684,100	\$5,823	\$18,694,287,838	\$8,497

*Leased fuel assumed

The cost estimate has been developed over the course of the project. The estimate was initially developed by coupling information in the 2005 TVA Bellefonte Study for the ABWR technology with FPL site-specific information. This produced an overnight capital cost estimate that was not technology specific. Sensitivities were explored for labor, materials and scope to develop an overnight cost estimate range. The overnight cost estimate range was then combined with an assumed spend curve and assumptions for escalation and interest during construction to produce a total project cost estimate range. Following preliminary negotiations with the Westinghouse/Shaw Consortium, a technology specific cost estimate was developed in 2010 to reflect current pricing and project features. This cost estimate was consistent with, and at the high end of, the original cost estimate range, following adjustment for the specific reactor technology and annual escalation. Based on that validation, FPL has chosen to retain the original cost estimate range, as adjusted, as its best estimate. The cost estimate range remains consistent with the publicly available cost estimates of other U.S. AP1000 projects.

This response is PLANT SPECIFIC.

References:

ABWR Cost/Schedule/COL Project at TVA's Bellefonte Site, DE-AI07-04ID14620, Tennessee Valley Authority, August 2005.

ASSOCIATED COLA REVISIONS:

Part 1 of the COLA will be updated in a future COLA revision to include the updated construction costs in 2012 dollars and the bases for this cost estimate.

1. The last paragraph of COLA Part 1, Section 1.3 will be revised as follows:

In accordance with 10 CFR 50.33(f) and 10 CFR 50, Appendix C, the estimated total combined construction costs for Units 6 & 7 include plant costs ascribable to the nuclear plant itself, general and overhead plant costs (including any transmission and distribution costs ascribable to the plant), and nuclear fuel cost for the first core load. These costs are estimated in 2012 dollars. Licensing costs and preconstruction activities occur before actual construction and are included in the estimates. The breakdown of the **estimated** costs is **and their bases are** described in Appendix 1A.

2. COLA Part 1, Section 1.6 will be revised to add the following reference:

4. ABWR Cost/Schedule/COL Project at TVA's Bellefonte Site, DE-AI07-04ID14620, Tennessee Valley Authority, August 2005.

3. The contents of COLA Part 1, Appendix 1A will be replaced with the following table and text:

Turkey Point Nuclear Units 6 & 7 Cost Estimate Range				
	Low Range		High Range	
	Total Dollars	Cost per kW	Total Dollars	Cost per kW
Power Plant and Supporting Construction	\$6,202,567,649		\$9,034,535,498	
Transmission and General Plant Costs	\$1,615,537,787		\$2,340,204,748	
Nuclear Fuel Inventory Cost for the First Core*	\$34,998,943		\$42,752,556	
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Escalation	\$1,374,646,749		\$2,020,718,864	
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Total Estimated Project Cost (Year Spent \$)	\$12,811,684,100	\$5,823	\$18,694,287,838	\$8,497
*Leased fuel assumed				

The cost estimate has been developed over the course of the project. The estimate was initially developed by coupling information in the 2005 TVA Bellefonte Study (Reference 4) for the ABWR technology with FPL site specific information. This produced an overnight capital cost estimate that was not technology specific. Sensitivities were explored for labor, materials and scope to develop an overnight cost estimate range. The overnight cost estimate range was then combined with an assumed spend curve and assumptions for escalation and interest during construction to produce a total project cost estimate range. Following preliminary negotiations with the Westinghouse/Shaw Consortium, a technology specific cost estimate was

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developed in 2010 to reflect current pricing and project features. This cost estimate was consistent with, and at the high end of, the original cost estimate range, following adjustment for the specific reactor technology and annual escalation. Based on that validation, FPL has chosen to retain the original cost estimate range, as adjusted, as its best estimate. The cost estimate range remains consistent with the publicly available cost estimates of other U.S. AP1000 projects.

ASSOCIATED ENCLOSURES:

None

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NRC RAI Letter No. PTN-RAI-LTR-057

SRP Section: 01 - Introduction and Interfaces

Question from NRC Financial, Policy, & Rulemaking Branch

NRC RAI Number: 01-2 (eRAI 6367)

The COL application states, "FPL will recover the cost of constructing the facility in accordance with the Florida Statute 366.93, Cost recovery for the siting, design, licensing, and construction of nuclear and integrated gasification combined cycle power plants, and Florida Administrative Code 25-6.0423, Nuclear Power Plant Cost Recovery." Pursuant to 10 CFR Part 50, Appendix C.I.A., provide proper documentation of the Florida Statute 366.93 and Florida Administrative Code 25-6.0423, providing the citation and the exact wording of the legislations.

FPL RESPONSE:

The citation for the Florida nuclear cost recovery statute is §366.93 Fla. Stat. (2011). The full text of the statute is available on the official website of the Florida Legislature at:

http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0366/Sections/0366.93.html

The Florida nuclear cost recovery statute is implemented by a rule, Fla. Admin. Code R.25-6.0423. The full text of the regulation is available on the official website of the Florida Department of State, Division of Library and Information Services, at:

<https://www.flrules.org/gateway/ruleno.asp?id=25-6.0423>

This response is PLANT SPECIFIC.

References:

1. Florida Statute 366.93, Cost recovery for the siting, design, licensing, and construction of nuclear and integrated gasification combined cycle power plants, http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0366/Sections/0366.93.html.
2. Florida Administrative Code R.25-6.0423, Nuclear or Integrated Gasification Combined Cycle Power Plant Cost Recovery, <https://www.flrules.org/gateway/ruleno.asp?id=25-6.0423>.

ASSOCIATED COLA REVISIONS:

COLA Part 1 will be revised in a future COLA revision as follows:

1. The fifth and sixth paragraph in Section 1.3 will be updated to read:

FPL reports and filings to the Florida Public Service Commission and the U.S. Securities and Exchange Commission may be found at <http://www.floridapsc.com/dockets/index.aspx> and at <http://www.sec.gov>, respectively. NextEra Energy's 2009-10-K Report (**Reference 3**) may be found at <http://www.nexteraenergy.com> to provide the information required by 10 CFR 50, Appendix C.

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FPL will recover the cost of constructing the facility in accordance with Florida Statute 366.93, Cost recovery for the siting, design, licensing, and construction of nuclear and integrated gasification combined cycle power plants (**Reference 1**), and Florida Administrative Code R.25-6.0423, Nuclear **or Integrated Gasification Combined Cycle** Power Plant Cost Recovery (**Reference 2**).

2. Section 1.6, References, will be updated to include the links provided above:

- 1.** Florida Statute 366.93 Cost recovery for the siting, design, licensing, and construction of nuclear and integrated gasification combined cycle power plants. **Available at <http://www.leg.state.fl.us>.**
- 2.** Florida Administrative Code R.25-6.0423 Nuclear or Integrated Gasification Combined Cycle Power Plant **Cost** Recovery. **Available at <https://www.flrules.org>.**
- 3.** FORM 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, ~~for the fiscal year ended December 31, 2009~~ for NextEra Energy, Inc. (which previously operated as FPL Group, Inc.) and Florida Power & Light Company. Available at <http://www.nexteraenergy.com>.

ASSOCIATED ENCLOSURES:

None