

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**DOCKET NO. 140009-EI
FLORIDA POWER & LIGHT COMPANY**

MARCH 3, 2014

**IN RE: NUCLEAR POWER PLANT COST RECOVERY
FOR THE YEAR ENDING
DECEMBER 2013**

TESTIMONY & EXHIBITS OF:

STEVEN D. SCROGGS

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
2 **FLORIDA POWER & LIGHT COMPANY**
3 **DIRECT TESTIMONY OF STEVEN D. SCROGGS**
4 **DOCKET NO. 140009-EI**
5 **March 3, 2014**
6
7 **Q. Please state your name and business address.**
8 A. My name is Steven D. Scroggs and my business address is 700 Universe
9 Boulevard, Juno Beach, FL 33408.
10 **Q. By whom are you employed and what is your position?**
11 A. I am employed by Florida Power & Light Company (FPL) as Senior Director,
12 Project Development. In this position I have responsibility for the
13 development of power generation projects.
14 **Q. Please describe your duties and responsibilities with regard to the**
15 **development of new nuclear generation to meet FPL customer needs.**
16 A. Commencing in the summer of 2006, I was assigned the responsibility for
17 leading the investigation into the potential of adding new nuclear generation
18 to FPL’s system, and the subsequent development of new nuclear generation
19 additions to FPL’s power generation fleet. I currently lead the development of
20 FPL’s Turkey Point Nuclear Units 6 and 7 (Turkey Point 6 & 7).
21 **Q. Please describe your educational background and professional**
22 **experience.**

1 A. I graduated from the University of Missouri – Columbia in 1984 with a
2 Bachelor of Science Degree in Mechanical Engineering. From 1984 until
3 1994, I served in the United States Navy as a Nuclear Submarine Officer.
4 From 1994 to 1996, I was a research associate at The Pennsylvania State
5 University, where I earned a Master of Science Degree in Mechanical
6 Engineering. I provided consulting and management services to the regulated
7 and unregulated power generation industry through a number of positions
8 until 2003, when I joined FPL as Manager, Resource Assessment and
9 Planning. I was appointed to my current position in 2006.

10 **Q. What is the purpose of your testimony?**

11 A. The purpose of my testimony is to describe FPL’s activities and costs incurred
12 in relation to the Turkey Point 6 & 7 project throughout 2013. Accordingly,
13 this testimony contains information with respect to the project as of December
14 31, 2013. My testimony describes the deliberate, stepwise process FPL
15 continues to manage so that FPL will have the opportunity to add new nuclear
16 generation capacity for its customers. Specifically, I discuss the progress
17 made on the project, key issues faced in 2013, and how those issues were
18 evaluated and resolved. I also explain the Turkey Point 6 & 7 project internal
19 controls and how those controls, supported by internal and external oversight,
20 provide for diligent and professional project execution. Further, my testimony
21 provides the actual expenditures incurred in 2013 and compares those
22 expenditures to the actual/estimated values provided to the Florida Public
23 Service Commission (FPSC) on May 1, 2013. Collectively, my testimony

1 provides the information necessary to demonstrate that FPL's 2013 costs for
2 the project were prudently incurred.

3 **Q. Please describe how your testimony is organized.**

4 A. My testimony includes the following sections:

- 5 1. High Level Project Summary and Issues
- 6 2. 2013 Project Activities and Results
- 7 3. Project Management Internal Controls
- 8 4. Procurement Processes and Controls
- 9 5. Internal/External Audits and Reviews
- 10 6. 2013 Project Costs

11 **Q. Please summarize your testimony.**

12 A. During 2013, FPL continued to make progress on the licensing and permitting
13 activities required for the Turkey Point 6 & 7 project, and maintained costs
14 within the annual budget. FPL continued its disciplined pursuit of the
15 approvals and authorizations necessary to establish the opportunity to add the
16 benefits of new nuclear generation for its customers. The benefits of adding
17 new nuclear generation to FPL's system were confirmed by the 2013 annual
18 feasibility analysis approved by FPSC Order No. PSC-13-0493-FOF-EI.

19

20 FPL achieved key milestones in the Site Certification Application (SCA)
21 process, for example, by participating in a comprehensive SCA hearing
22 resulting in a resoundingly affirmative Recommended Order (RO) provided
23 by the Administrative Law Judge (ALJ). The RO recommended that the

1 Siting Board grant final site certification to the Turkey Point 6 & 7 project,
2 including all associated transmission lines. In the Nuclear Regulatory
3 Commission (NRC) licensing process, significant progress was made
4 responding to Requests for Additional Information (RAIs) related to seismic
5 issues and alternative sites, participating in six NRC-hosted public meetings,
6 and updating the Combined Operating License Application (COLA) with
7 Revision 5. FPL has maintained its disciplined and steady approach in the
8 execution of the project, while displaying a willingness to adapt project
9 timelines to ensure an inclusive and complete review.

10

11 The project is being managed by a professional team of engineers, analysts,
12 and managers to ensure process controls are maintained and activities comply
13 with applicable corporate procedures and project-specific instructions. The
14 project management process is being conducted in a well-informed,
15 transparent and organized manner enabling executive oversight and
16 facilitating reviews by internal and external parties. The Turkey Point 6 & 7
17 project team has the skills, experience, and executive oversight to guide the
18 project through critical decisions using the best available information. This
19 disciplined application of good business process by well-qualified FPL
20 managers and their staff resulted in prudent decisions with respect to project
21 activities and expenditures.

22 **Q. Are you sponsoring any exhibits in this proceeding?**

23 **A. Yes. I am sponsoring or co-sponsoring the following exhibits:**

- 1 • SDS-1, consisting of True-up (T) Schedules covering the 2013 actual
2 period for the Turkey Point 6 & 7 project Site Selection and Pre-
3 construction costs. SDS-1 contains a table of contents listing the T-
4 Schedules sponsored and co-sponsored by FPL Witness Grant-Keene and
5 by me, respectively.
- 6 • SDS-2, consisting of a table listing all licenses, permits and approvals FPL
7 is preparing to support the Turkey Point 6 & 7 project.
- 8 • SDS-3, consisting of a comprehensive list of procedures and work
9 instructions that governed the internal controls processes.
- 10 • SDS-4, consisting of a list describing various project reports, their
11 periodicity and target audience.
- 12 • SDS-5, consisting of a comprehensive list of project instructions and
13 forms utilized in 2013.
- 14 • SDS-6, consisting of summary tables of the 2013 expenditures.

15

16 **HIGH LEVEL PROJECT SUMMARY & ISSUES**

17

18 **Q. What is the Turkey Point 6 & 7 project?**

19 A. The project consists of a two-unit nuclear generating station with associated
20 linear and non-linear facilities. The units, AP1000 design by Westinghouse,
21 will each produce 1,100 megawatts (MW). Linear facilities include five
22 transmission lines, a reclaimed water supply pipeline, potable water lines and
23 a series of roadway improvements in the region. Non-linear facilities include

1 a reclaimed water treatment facility, various buildings and facilities on the
2 Turkey Point site and mitigation projects in the region surrounding the plant.
3 In 2013 the project continued to focus on obtaining the licenses, permits and
4 approvals necessary for construction and operation. A list of these licenses,
5 permits and approvals is included in Exhibit SDS-2.

6 **Q. What are the customer benefits that justify the continued pursuit of new
7 nuclear generation?**

8 A. The benefits to FPL customers offered by additional nuclear generation are
9 numerous. The key benefits relate to FPL's core mission of providing reliable
10 electric service at reasonable rates. The fuel required for nuclear generation is
11 not dependent on natural gas pipelines, railroad or maritime distribution
12 systems or subject to volatile energy markets. Therefore, nuclear generation
13 greatly adds to the reliability of a system by increasing fuel diversity, fuel
14 supply reliability and energy security. Nuclear fuel markets provide a stable
15 cost input reducing the impact to monthly customer bills that result from fuel
16 price volatility. In addition, the location of 2,200 MW of baseload generation
17 in Miami-Dade County helps to maintain a balance of generation and load in
18 Southeastern Florida. The feasibility analyses approved by the FPSC in 2008,
19 2009, 2010, 2011, 2012 and 2013 demonstrate the robust cost-effective nature
20 of nuclear generation when compared to other baseload generation
21 alternatives. Finally, nuclear generation is recognized as an important
22 component of meeting state and national energy goals in addressing
23 greenhouse gas reduction. By employing an approach that maintains progress,

1 even during dynamic and demanding times, FPL is creating the opportunity to
2 deliver those benefits on the most practicable schedule.

3 **Q. Please expand on the value of FPL's approach to developing new nuclear**
4 **generation.**

5 A. Without the approvals, licenses, and permits needed to construct and operate a
6 new nuclear facility, the opportunity and timeline for customers to benefit
7 from this valuable generation source is remote and uncertain. By taking the
8 steps to obtain the licenses and approvals, further defining the specific project,
9 FPL is accomplishing several key objectives. First, the uncertainties around
10 the approval process are reduced and the final definition of the project is
11 refined. Second, the market for providing the equipment and services needed
12 to construct the project is allowed to further mature, leveraging observations
13 from first wave projects. Lastly, the decision to initiate construction activities
14 will be made with very current information providing the best decision basis.

15
16 By applying this deliberate and flexible approach, FPL is able to maximize
17 progress and the collection of information necessary to make subsequent
18 decisions, while minimizing the current cost exposure of customers.

19 **Q. Please summarize the progress FPL made on the Turkey Point 6 & 7**
20 **project in 2013.**

21 A. FPL made measurable progress in all regulatory processes towards obtaining
22 all necessary licenses, permits, and approvals. The three key processes
23 include the Combined License (COL) process administered by the NRC,

1 wetland permits under the jurisdiction of the US Army Corps of Engineers
2 (USACE), and the SCA process, coordinated by the Florida Department of
3 Environmental Protection (FDEP). In general, 2013 largely completed the
4 information exchange with the federal agencies and provided the public
5 hearing for the full body of evidence in the state process.

6
7 Specific areas of focus in the NRC process included seismic and geologic
8 issues from a safety perspective, and alternative sites from an environmental
9 perspective. Public meetings and formal RAI responses have resulted in
10 satisfying most of the NRC's requests, with a small well-defined subset
11 scheduled to be complete in 2014. The USACE permitting process, as
12 designed, has maintained pace with the NRC process.

13
14 In the state SCA process, several key milestones were achieved. FDEP
15 completed its Project Analysis Report for the plant and non-transmission
16 portions of the project. An extensive discovery period dominated the first half
17 of the year, while the second half was dominated by the lengthy SCA hearing.
18 Over 90% of the hearing content focused on the location of the transmission
19 lines associated with the project, largely due to the number of alternate
20 corridors proposed by parties to the proceeding.

21
22 In July, the FDEP issued a permit to convert an Underground Injection
23 Control (UIC) exploratory well to an operating well. This is an essential step

1 in demonstrating satisfactory operation of the UIC wells proposed for the
2 project.

3

4 Project staff continued to monitor industry milestones and events to identify
5 potential impacts to the overall Turkey Point 6 & 7 project cost and schedule
6 and provide indicators as to when preparation phase activities are warranted.

7 Activities also included continued involvement in industry groups and site
8 visits to observe key construction milestones at Southern Company's
9 (Southern) Vogtle Electric Generating Plant (Vogtle) and SCANA
10 Corporation's (SCANA) Summer AP1000 projects in Georgia and South
11 Carolina, respectively.

12 **Q. What key events occurred in 2013 that impacted the national and**
13 **international nuclear industry?**

14 A. As part of its efforts to incorporate lessons learned from the events at
15 Fukushima in March 2011, the NRC issued guidelines and rules for
16 addressing seismic reviews and beyond design basis events.

17

18 Progress continued on the Waste Confidence rule, a pre-requisite to the NRC
19 issuing any new COLs for nuclear plants in the US. However, uncertainty
20 around the federal budget and a government shutdown had some, albeit
21 undeterminable, impact on the pace of reviews and resolution of outstanding
22 RAIs with the NRC and USACE.

1 **Q. What other national level issues were monitored for the potential impact**
2 **to cost and schedule of the Turkey Point 6 & 7 project?**

3 A. Developments in 1) the economy, 2) energy policy (at national and regional
4 levels), and 3) the progress of international and domestic projects were
5 monitored because they have the potential to affect the project.

6

7 The rate of economic recovery and the long term supply and pricing of natural
8 gas has the potential to impact facets of the project, including: access to and
9 cost of financing, material and labor costs, the development of national and
10 international supply chains for new nuclear projects, and the overall feasibility
11 of the project. The annual feasibility analysis addresses these issues in a
12 disciplined and consistent manner each year. During 2013, a general
13 improvement in the economy was observed and continued positive progress
14 was demonstrated in supply chain development as Southern's Vogtle and
15 SCANA's Summer new nuclear projects continued full scale construction
16 activities in 2013.

17

18 National energy policy continues to be supportive of nuclear energy in
19 general, and new nuclear energy development specifically, even following the
20 Japanese tsunami and subsequent Fukushima events in March 2011.
21 Domestic and international nuclear construction projects using the AP1000
22 design have continued to make progress in 2013. In China, the Sanmen and
23 Haiyang AP1000 projects are proceeding through the construction phase,

1 projecting operation in 2015 and 2016, respectively. Significant differences in
2 labor and regulatory schemes limit the transferability of the full construction
3 experience to US projects.

4 **Q. What project-specific issues were monitored in 2013 for the potential**
5 **impact to cost and schedule of the Turkey Point 6 & 7 project?**

6 A. Project specific issues include 1) FPL system and regional economic
7 developments influencing the annual feasibility analysis, and 2) the pace and
8 outcome of permit and license application reviews. The impact of these
9 factors on the project feasibility is reviewed annually.

10 **Q. Was the feasibility of the Turkey Point 6 & 7 project re-evaluated in**
11 **2013?**

12 A. Yes. A complete feasibility analysis was conducted to review the economics
13 of the project using updated assumptions for system demand, fuel forecasts,
14 environmental compliance costs, and alternative generation costs. The
15 analysis is a two-step process, consistent with the original analysis supporting
16 the 2008 Need Order.

17
18 The first step takes the form of developing a “break-even” cost to determine
19 what the nuclear project could cost while remaining economically competitive
20 with alternative baseload generation sources. That “break-even” cost is
21 compared to the high end of the project cost estimate range. The results of the
22 analysis confirmed that the Turkey Point 6 & 7 project is quantitatively and
23 qualitatively superior in 5 of 7 fuel and environmental cost scenarios and

1 shows comparable economics in the remaining two scenarios, maintaining the
2 qualitative benefits of fuel diversity, energy security and zero emissions.
3 These results continue to demonstrate that the new nuclear project remains the
4 best economic alternative for FPL's customers. An updated feasibility
5 analysis will be submitted on May 1, 2014 in the FPSC Nuclear Cost
6 Recovery Clause (NCRC) filing.

7 **Q. Did FPL have sufficient, meaningful, and available resources dedicated to**
8 **the Turkey Point 6 & 7 project in 2013?**

9 A. Yes. As demonstrated throughout this testimony, FPL had in place an
10 appropriate project management structure that relied on both dedicated and
11 matrixed employees, the necessary contractors for specialized expertise, and a
12 robust system of project controls. These resources enabled the project to
13 make significant progress in the current licensing phase.

14

15 **2013 PROJECT ACTIVITIES AND RESULTS**

16

17 **Q. What were the major activities for the Turkey Point 6 & 7 project during**
18 **2013?**

19 A. The major activities focused on completing the agency reviews of the federal
20 and state applications, and activities supporting conversion of the UIC
21 exploratory well at the project site.

22 **Q. What were the specific activities and results associated with federal**
23 **licensing processes for the Turkey Point 6 & 7 project in 2013?**

1 A. FPL engaged continuously with the NRC and USACE staff throughout 2013
2 in an iterative process refining RAI responses to meet the specific needs of the
3 agencies. This involved two parallel COLA review areas: the Safety analysis
4 and the Environmental analysis. Additionally, FPL submitted its annual
5 COLA revision.

6

7 Significant progress on the Safety analysis was made in four specific areas.

- 8 • Conducting proprietary review of 7 of 19 draft chapters of the NRC
9 staff's Advanced Safety Analysis Report.
- 10 • Responding to 13 RAIs received in 2013 on a range of safety related
11 topics.
- 12 • Responding to 37 RAIs received prior to 2013 on seismic and
13 geotechnical information (Final Safety Analysis Report [FSAR]
14 sections 2.5.1 through 2.5.3).
- 15 • Conducting the additional site data collection and analysis to answer
16 the 21 outstanding RAIs received prior to 2013 related to seismic and
17 geotechnical issues (FSAR sections 2.5.4).

18

19 The Environmental analysis has been focused on the alternative site analysis
20 of FPL's Environmental Review (Section 9.3). The challenge has been to
21 provide clarity around FPL's analysis that allows the NRC and USACE to
22 satisfy both agencies' regulatory requirements in a single Environmental
23 Impact Statement (EIS) narrative. FPL employed a very interactive approach

1 to working with both agencies including weekly conference calls with agency
2 staff, four public meetings since December 2012, and an exchange of
3 information through NRC and USACE RAIs. Significant progress was made,
4 clearing all RAIs that will allow publication of the draft EIS and a revised
5 COLA review schedule for the Environmental portion.

6

7 As in past years, FPL submitted a revision (Rev. 5 in 2013) to the COLA to
8 ensure the document incorporated the latest information from preceding
9 COLAs and updates specific to Turkey Point 6 & 7. Following final zoning
10 approval in Miami-Dade County of a Reclaimed Water Treatment Facility
11 location, certain parties filed a contention in the COLA process addressing
12 the momentary discrepancy between FPL's filed COLA and the newly zoned
13 location. FPL addressed the issue and the proposed contention was rejected
14 by the Atomic Safety and Licensing Board.

15 **Q. What were the specific activities and results associated with the state SCA**
16 **and permitting of the Turkey Point 6 & 7 project in 2013?**

17 A. The year began with obtaining the final required zoning approvals from
18 Miami-Dade County. This allowed the County to issue an affirmative Land
19 Use Consistency determination in the SCA process. FDEP then published a
20 Project Analysis Report (PAR) on the plant and non-transmission aspects of
21 the project on March 3, 2013, clearing the path to the SCA hearing. The PAR
22 recommended certification of the two unit plant and associated facilities.

23

1 April through June was occupied with a number of pre-hearing SCA activities,
2 including significant amounts of discovery. FPL was able to negotiate 29
3 stipulations with state agencies, local governments and interested parties,
4 greatly simplifying the scope of the testimony required at hearing.

5
6 The ALJ convened the SCA hearing on July 8, 2013. The hearing spanned 34
7 days in July, August, September and early October. During the hearing,
8 testimony was provided by 63 expert witnesses using 910 exhibits, and
9 included seven public testimony periods allowing another 165 members of the
10 public an opportunity to comment. The location of the transmission lines
11 associated with the project was the focal point of the hearings and public
12 testimony, occupying 30 of the 34 days of hearing.

13
14 The ALJ published his 328 page RO on December 5, 2013. The RO
15 recommended that the Siting Board should grant final certification to FPL for
16 the Turkey Point 6 & 7 project including electrical transmission lines and
17 other linear and non-linear associated facilities. Further, the RO
18 recommended that the Siting Board certify the FPL East Preferred Corridor,
19 the West Consensus Corridor and the FPL West Preferred Corridor as a
20 backup in the event that the West Consensus Corridor cannot be secured in a
21 timely manner and at a reasonable cost. Additionally, the RO recommended
22 approval of all requested variances and easements included in FPL's SCA.

1 **Q. Were there other permitting activities and results observed related to the**
2 **Turkey Point 6 & 7 project in 2013?**

3 A. Yes. In 2013, FPL continued progress on the UIC Exploratory Well and Dual
4 Zone Monitoring Well by successfully obtaining the permit to convert the
5 exploratory well to an operating well. The operating well permit allows FPL
6 to proceed with the injection testing necessary to confirm the acceptability of
7 the well operation.

8 **Q. Please describe any activities associated with the negotiation or execution**
9 **of commercial or development agreements supporting the Turkey**
10 **Point 6 & 7 project in 2013.**

11 A. FPL and Westinghouse continued discussions regarding the Forging
12 Reservation Agreement. It was agreed to extend the expiration date of the
13 current agreement to October 31, 2014. There were no changes to the
14 substantive terms of the agreement.

15
16 Additionally, in support of a western transmission line corridor, FPL has been
17 engaged in negotiations with multiple state and federal agencies to exchange
18 its current owned transmission line corridor in the eastern Everglades for a
19 combination of easements and property that would provide a continuous
20 transmission right-of-way between north and south Miami-Dade County that
21 would not be in Everglades National Park (ENP). Collectively, these efforts
22 are referred to as the ENP land exchange. These negotiations are captured in
23 participation agreements, authorized by federal legislation and are undergoing

1 final environmental review by the National Park Service (NPS). Progress was
2 made in 2013, and a draft EIS was published on January 17, 2014.

3
4 During the SCA hearing, FPL and the Miami-Dade Limestone Products
5 Association (MDLPA) agreed to combine the northern and southern segments
6 of the FPL West Preferred Corridor with an alternate corridor proposed by
7 MDLPA. The combined corridor is referred to as the West Consensus
8 Corridor, and was recommended by the ALJ for certification. The West
9 Consensus Corridor avoids some of the area involved in the ENP land
10 exchange, but is still dependent on the exchange occurring. The stipulation
11 addressed environmental concerns of some parties and lessened wetland
12 impacts. However, the integration of the West Consensus corridor added an
13 additional level of complexity to the overall project and requires continued
14 discussions with other parties to ensure successful execution.

15 **Q. Please describe FPL's decision making related to the timing of initiating**
16 **certain Pre-construction activities and the implications of those decisions.**

17 A. In 2010 FPL conducted a schedule review that resulted in earliest practicable
18 completion dates of 2022 and 2023 for Units 6 and 7, respectively. This
19 assumed a certain pace of regulatory reviews and parallel or subsequent Pre-
20 construction activities. Since that time, FPL has monitored the pace of
21 regulatory reviews at the state and federal level and deferred Pre-construction
22 activities as a means of managing project cost and risk. Included in the 2010
23 schedule was time margin that could accommodate some deferrals without

1 **Q. Please describe the project management structure that was responsible**
2 **for the Turkey Point 6 & 7 project in 2013.**

3 A. The management structure for the Turkey Point 6 & 7 project reflected the
4 dual nature of the project relying on a working combination of two key
5 groups: Project Development and New Nuclear Projects. The organization of
6 the project into these two key groups helped maintain a consistent
7 management and reporting structure with specific focus and areas of
8 responsibility, while allowing the project the flexibility to grow and adapt
9 over time. As the project began the final phase of regulatory reviews, it was
10 determined to align Nuclear Project Development and the New Nuclear
11 Project team within the Nuclear division under Chief Nuclear Officer (CNO)
12 Mano Nazar. As of April 1, 2013, both William Maher (Senior Director, New
13 Nuclear Licensing) and I began reporting directly to Mano Nazar. This
14 change allowed closer alignment with the CNO organization, which maintains
15 the regulatory relationship with the NRC and will be able to facilitate the final
16 phase of regulatory reviews.

17
18 Project Development, which I lead, had the primary responsibility for the
19 execution of development and licensing activities not within the purview of
20 the NRC, project communication activities and FPSC filings. Similar to the
21 way other generation development projects are executed within FPL, Project
22 Development utilized matrix relationships with key business units in the
23 company to provide essential support. For example, legal, transmission

1 planning and environmental services were provided by those business units
2 through assigned personnel.

3
4 The New Nuclear Project team managed the complex and specialized nature
5 of the COLA process and the engineering, procurement and construction
6 activities necessary to obtain licenses and permits. This team is managed by
7 Mr. Maher. The New Nuclear Project team had direct responsibility for the
8 production and management of the COLA. The project team will adjust
9 staffing as the project evolves, ensuring access to the necessary skill sets are
10 maintained to accomplish project objectives in the most cost-effective manner.

11 **Q. Please describe the project management and staffing approach employed**
12 **on the Turkey Point 6 & 7 project in 2013.**

13 A. The project was staffed by a combination of employees fully dedicated to the
14 project, employees from FPL business units who devoted a portion of their
15 time to the project, and a select group of contractors and subcontractors whose
16 subject matter expertise and skills were required to complete the considerable
17 tasks related to this undertaking. Leading the staff was a project management
18 team charged with monitoring the day-to-day execution and strategic direction
19 of the project. The project management team provided routine, dedicated
20 oversight of the project including a determination of the timing and content of
21 external reviews. The project management team was supported by project
22 controls professionals that executed the day-to-day project activities and
23 provided direct oversight of procedural compliance. The project also

1 benefited from routine review, supervision, and direction provided by FPL
2 executive management.

3 **Q. What were the key elements of the project management process used to**
4 **manage the Turkey Point 6 & 7 project in 2013?**

5 A. FPL routinely and methodically evaluated the risks, costs, and issues
6 associated with the Turkey Point 6 & 7 project using a system of internal
7 controls, routine project meetings and communication tools, management
8 reports and reviews, internal and external audits, and the annual feasibility
9 analysis.

10 **Q. Please describe the system of internal controls that were applicable to the**
11 **project in 2013.**

12 A. The project internal controls were comprised of various financial systems,
13 department procedures, work/desktop instructions and best practices providing
14 governance and oversight of project cost and schedule processes.

15
16 Exhibit SDS-3 provides a list of procedures and work instructions that
17 governed the internal controls processes and expectations. These procedures
18 and work instructions were employed by dedicated and experienced project
19 controls personnel who provided project oversight and analysis. The Project
20 Controls organization helped to ensure appropriate management decisions
21 were made based upon assessment of available information leading to
22 reasonable costs. Accountability was clear and understood throughout the

1 Project Controls organization and was a cornerstone of the services they
2 provide.

3 **Q. Please describe the specific reports that were generated to monitor the**
4 **project and the periodicity and audience for those reports.**

5 A. The project relied on a series of weekly or monthly reports and had standing
6 meetings to discuss forward-looking analysis with project managers. Exhibit
7 SDS-4 provides a list describing the reports, and their periodicity and target
8 audience.

9 **Q. Please describe the staff responsible for administering these internal**
10 **controls and their specific responsibilities.**

11 A. The internal controls staffing for the project was comprised of three personnel.
12 A Project Controls Director provided functional leadership, governance, and
13 oversight. A Project Controls Manager provided cost and schedule direction
14 and analysis, coordinated internal and external audit requests, held meetings
15 with project management to review cost and schedule performance, and
16 reviewed all cost, scope changes, schedules and performance indicators. The
17 Project Controls Manager also participated in meetings with project
18 management to review cost and schedule performance, provided information
19 regarding cost, scope changes, schedules and performance indicators,
20 maintained cost templates, supported the production of documents and
21 responses to information requests, and met monthly or as required with
22 department heads on forecasting and commitments. A Construction Capital

1 Cost Estimator maintained the master schedule and the master project estimate
2 template.

3 **Q. How were the internal controls developed?**

4 A. Many of the internal controls procedures, processes or work instructions were
5 pre-existing FPL company or department processes. However, due to the
6 unique characteristics of the Turkey Point 6 & 7 project, cost templates were
7 specifically developed for monitoring expenditures to support FPSC filing
8 requirements and to facilitate associated reviews. FPL has contractually
9 placed significant reporting requirements on contractors by requiring trend,
10 tracking and performance indicators. This allows the internal controls team to
11 monitor events and trends on a forward-looking basis. As the project evolves,
12 additional controls will be developed as necessary.

13 **Q. What are Project Instructions and why are they needed?**

14 A. In the course of project development, FPL identified a need to develop some
15 business processes unique to new nuclear deployment. These processes
16 involve conducting business in compliance with NextEra Energy, Inc. and
17 FPL policies and procedures, but also recognize project-specific requirements.
18 For example, specific instructions are needed to ensure compliance with
19 additional NRC requirements for quality control and document retention.
20 Direction for such specific areas of focus is provided to project staff through a
21 set of FPL's New Nuclear Project - Project Instructions (NNP-PI). These
22 Project Instructions establish a standard for the project team which provides
23 guidance, sets expectations and drives consistency. Exhibit SDS-5 provides

1 FPL's comprehensive list of project instructions and forms that were utilized
2 in 2013.

3 **Q. What processes were used to manage project risk?**

4 A. Cost and schedule risk was managed by ensuring the project team recognized
5 and understood the issues facing different sub-teams that comprised the
6 overall project. A mix of weekly meetings with small teams, monthly
7 meetings with select members of the project team, and routine executive
8 briefings ensured the project would benefit from sufficient and timely
9 communication. Further, the information flow began at the working level and
10 was integrated as it moved to the project management team to ensure the
11 issues were adequately captured and the interaction with other portions of the
12 project was properly assessed. These meetings resulted in several reports
13 identified in Exhibit SDS-4. All of these routine meetings allowed project
14 management to obtain updates from key project team members, provide
15 direction on the conduct of the project activities and maintain tight control
16 over project progress, expenditures, and key decisions.

17
18 Each week the project team held multiple status meetings. These meetings,
19 held by teams within the project, tracked project activities at a level that
20 allowed most issues to be identified, discussed, and resolved at the working
21 team level. Examples include the COLA team, the SCA team consisting of
22 plant and transmission sub-teams, and others. For those issues that could not
23 be resolved at the working team level, project management provided a multi-

1 step process to elevate the issue to the appropriate level for resolution.
2 Contractor performance was also tracked on a weekly basis. Schedule and
3 cost metrics were monitored and reported in standard format reports to allow
4 close monitoring of contractor performance.

5
6 The project team met monthly to review project schedule, budget
7 performance, and key project issues. Project risk was specifically tracked and
8 reviewed. The monthly Cost Report meeting provided an opportunity to drill
9 down on project cost issues and expectations. Project management also
10 provided a routine update to FPL executive management. This update
11 provided the opportunity for dialogue between the project management team,
12 Business Unit leaders and executive management. While the executive team
13 was always available for consultation on developing issues and opportunities,
14 the routine meetings ensured a broad range of topics were regularly reviewed
15 and discussed.

16
17 The project utilized a quarterly risk assessment tool to identify, characterize and
18 track project risks. Six areas were assessed to identify key issues, estimate
19 probability or likelihood of occurrence (high, medium, and low), and the
20 magnitude of potential consequences (high, medium, and low). Further,
21 mitigation actions or strategies to be employed to manage the risk were
22 described. A monthly project dashboard report complemented the Quarterly

1 Risk Analysis. This document allowed for monthly trending of project risk areas
2 unique to the Turkey Point 6 & 7 project.

3 **Q. What other periodic reviews were conducted to ensure the project was**
4 **appropriately reviewed and analyzed?**

5 A. Internal and external audits occur during the course of the project to ensure
6 the project adheres to all corporate guidelines for financial accounting as well
7 as employing best management and internal controls practices. When a
8 deficiency is identified in an audit, an analysis is conducted to determine the
9 cause of the deficiency and corrective actions are implemented to ensure the
10 deficiencies are mitigated going forward. The 2013 audits are described
11 further below.

12
13 Additionally, the project is reviewed annually to determine its continued
14 economic feasibility. In 2013, this analysis was conducted using the same
15 framework as the analysis accepted during the Need Determination
16 proceeding, but was updated to reflect what was currently known regarding
17 project cost, project schedule, and the cost and viability of alternative
18 generation technologies. The analysis presented in the May 2013 NCRC
19 filings demonstrate the project remains feasible. An updated feasibility study
20 will be filed on May 1, 2014.

21 **Q. What other activities has FPL undertaken to ensure its decision processes**
22 **are informed by the most current national and international industry**
23 **information?**

1 A. FPL is an industry leader in nuclear generation, and as such, has the
2 experience, contacts, and industry presence to engage in many forums for
3 exploration of nuclear industry issues. Nonetheless, the specific challenges of
4 new nuclear deployment have created focus areas requiring additional
5 coordination between entities involved in new plant licensing, construction,
6 and operation. FPL participated in three key industry groups providing value
7 to the Turkey Point 6 & 7 project in 2013. The Design Centered Working
8 Group was formed to provide coordination among owners, vendors, and the
9 NRC related to design modifications of the AP1000. This critical activity is
10 necessary to ensure design changes for the AP1000 are made through a
11 consensus process with the involvement of the NRC to preserve
12 standardization of design, a cornerstone of new nuclear development. FPL
13 also is a member of the AP1000 owners group (APOG) (a consortium of
14 owners of the AP1000 design) and of the Advanced Nuclear Technology
15 group organized by the Electric Power Research Institute (EPRI). These
16 groups are primarily forums to identify and resolve issues that are of primary
17 interest to owners, such as staffing, training and maintenance activities. For
18 example, programs such as Procurement Specification Development,
19 Equipment and Nuclear Fuel Reliability improvements, Advancing Welding
20 Practices, and Modular Equipment Testing and Benchmarking provide FPL
21 increased efficiency in program development and implementation resulting in
22 future cost savings. The principle of standardization through operations and
23 maintenance requires this level of industry coordination and dialogue. These

1 different groups have unique and important roles in the successful execution
2 of new nuclear deployment in the US. Achieving the goal of industry
3 standardization and realizing the associated economic and operational
4 efficiencies requires active participation by industry participants in these
5 venues.

6 **Q. What steps were taken to ensure project expenditures were properly**
7 **authorized?**

8 A. For initial commitments, an approved request directed Integrated Supply
9 Chain (ISC) to go out for bid and formally contract with the selected supplier.
10 Initial commitments required appropriate authorizations including all
11 documentation required by corporate procedures. This included requests for
12 proposal, contracts, purchase orders, notice to proceed, and, if required, a
13 single or sole source justification. For Contract Change Orders (CCOs), the
14 requests were authorized at the appropriate level and the CCOs executed prior
15 to releasing the supplier to perform the requested scope of work. Tracking
16 systems and processes were used to document and record procurement
17 activities and to obtain the appropriate level of management authorization for
18 expenditures.

19 **Q. How would you summarize FPL's overall approach to Turkey Point 6 &**
20 **7 project management in 2013?**

21 A. FPL followed robust project planning, management, and execution processes
22 to manage the Turkey Point 6 & 7 project. These efforts were led by
23 personnel with significant experience in project management and development

1 supported by project management professionals trained in the deliberate
2 execution of critical infrastructure projects through a comprehensive set of
3 internal controls. Additionally, FPL capitalized on the experience of its other
4 power generation development projects by implementing lessons learned by
5 those project teams. Finally, FPL implemented an ongoing internal auditing
6 and quality assurance process to continuously monitor compliance with the
7 controls discussed above. In summary, FPL had the right people with the
8 right tools and oversight making decisions with the best available information.
9 For all of these reasons, FPL is confident that its Turkey Point 6 & 7 project
10 management decisions were well-founded and reasonable.

11

12 Further, FPL recognizes the unique nature of new nuclear deployment
13 demands a continuous monitoring of developments in policy, regulatory and
14 economic arenas. FPL maintains an ongoing analysis and incorporation of
15 these events to ensure the appropriate actions are taken at the right time to
16 establish the option for new nuclear generation. The application of sound
17 project management fundamentals and critical questioning provides the best
18 results.

19

20 **PROCUREMENT PROCESSES AND CONTROLS**

21

22 **Q. What was FPL's preferred method of procurement and when might it be**
23 **in the best interest of the project to use another method?**

1 A. The preferred approach for the procurement of materials or services was to
2 use competitive bidding. FPL benefitted from its strong market presence
3 allowing it to leverage corporate-wide procurement activities to the specific
4 benefit of individual project procurement activities. Maintaining a
5 relationship with a range of service providers offered the opportunity to assess
6 capabilities, respond to changing resource loads and remain knowledgeable of
7 current market trends and cost of service.

8
9 However, in certain situations the use of single or sole source procurement
10 was in the best interest of the company and its customers. In some cases there
11 was a limited pool of qualified entities to perform specific services or provide
12 certain goods and materials. In other cases a service provider was engaged to
13 conduct a specific scope of work based on a competitive bid or other analysis
14 and additional scope was identified that the vendor could efficiently provide.
15 Circumstances such as the above examples are common in the nuclear
16 industry, and especially on complex long-term projects such as the Turkey
17 Point 6 & 7 project.

18 **Q. Do you anticipate the use of single or sole source procurement practices**
19 **will change over the course of the project?**

20 A. Yes. As the project moves through various phases, the proportion of single
21 source procurement will shift based on the nature of the major expenditures
22 associated with each phase. During the licensing phase, the majority of the
23 costs are expended on the federal licensing activities, which have been or will

1 be competitively bid. In contrast, the next phase of the project will involve
2 proprietary engineering and procurement activity that FPL must contract from
3 the equipment provider, a sole source of these goods and services. Then, as
4 the project moves to construction, FPL is taking steps to develop credible
5 providers who can competitively bid specific scopes of the construction work.
6 Developing a pool of credible vendors, especially for the very large and
7 complex construction phase, requires a concerted effort, but is expected to
8 result in reduced costs regardless of which vendor is selected.

9 **Q. Please describe the single and sole source procurement procedures that**
10 **applied to the Turkey Point 6 & 7 project in 2013.**

11 A. NextEra Energy, Inc. corporate policy NEE-PRO-1470 requires proper
12 documentation and authorization for single or sole source procurement. Such
13 authorization must be from an individual with a commitment/spend authority
14 at least equal to the value of the goods or services being procured. The
15 procedure also calls for a review of the justification for reasonableness.
16 Throughout 2013, FPL maintained its vigilance in creating adequate single or
17 sole source documentation consistent with NEE-PRO-1470.

18

19 **INTERNAL/EXTERNAL AUDITS AND REVIEWS**

20

21 **Q. What external audits or reviews have been conducted to ensure the**
22 **project controls are adequate and costs are reasonable?**

1 A. FPL engaged Concentric Energy Advisors (Concentric) to conduct a review of
2 the project internal controls, with a focus on management processes, as was
3 conducted in 2008, 2009, 2010, 2011 and 2012. FPL has addressed all
4 recommendations provided by Concentric from prior year reviews. The 2013
5 Concentric review is discussed by Witness Reed.

6
7 The FPSC Staff conducts a financial audit of the project ledger and accounts
8 and an internal controls audit annually. The 2013 audits are currently
9 underway.

10 **Q. Does Internal Audit conduct an annual review to ensure the project
11 controls were adequate and costs were reasonable?**

12 A. Yes. An annual FPL internal audit focuses on ensuring that costs charged to
13 the project are for Turkey Point 6 & 7 project related activities and are
14 recorded in accordance with NCR Rule 25-6.0423. This audit is underway to
15 review the project costs for the period January 1, 2013 to December 31, 2013,
16 the results of which will be available to the FPSC, its Staff, and other parties
17 upon completion in the second quarter of 2014.

18

19 **2013 PROJECT COSTS**

20

21 **Q. Describe the costs incurred for the Turkey Point 6 & 7 project in 2013.**

22 A. As represented in Exhibit SDS-6 and Exhibit SDS-1, Schedule T-6, FPL
23 incurred a total of \$28,728,488 in project costs that were necessary for the

1 activities described in this testimony. This is \$549,227 less than the May 1,
2 2013 Actual/Estimated costs of \$29,277,715.

3

4 These “Pre-construction costs” (as that term is defined by Rule 25-
5 6.0423(2)(g)) are broken down into the following subcategories: 1) Licensing
6 \$25,637,988; 2) Permitting \$1,231,174; 3) Engineering and Design
7 \$1,859,326; 4) Long Lead Procurement Advanced Payments \$0; and 5) Power
8 Block Engineering and Procurement \$0.

9 **Q. Please describe the costs incurred in the Licensing subcategory.**

10 A. In 2013, Licensing costs were \$25,637,988 as shown in Exhibit SDS-6 Table
11 2 and Exhibit SDS-1, Schedule T-6, Line 3. Licensing costs consist primarily
12 of FPL employee, contractor labor, and specialty consulting services
13 necessary to develop the COLA required for construction and operation of the
14 Turkey Point 6 & 7 project and the state certification of the project.

15 **Q. Please explain the reasons behind the variances between the actual
16 Licensing costs and the costs estimated in the 2013 NCR filing in Docket
17 No. 130009-EI.**

18 A. Several activities resulted in higher than anticipated costs in 2013, resulting in
19 a variance of \$111,273 to the May 1, 2013 filing. In support of the NRC
20 COLA Safety analysis, additional work scope including site investigations and
21 engineering analysis was required to fully respond to RAIs received.
22 Additionally, the 2013 budget assumed a certain level of activity in discovery
23 and hearings for the SCA process. The actual duration and extent of the SCA

1 process exceeded early estimates requiring additional expenditures for support
2 of the extensive discovery and lengthy hearing. These higher costs were
3 largely balanced by using a combination of contingency and re-allocation of
4 funds not required for deferred activities.

5 **Q. Please describe the costs incurred in the Permitting subcategory.**

6 A. In 2013, Permitting costs were \$1,231,174 as shown in Exhibit SDS-6 Table 3
7 and Exhibit SDS-1, Schedule T-6, Line 4. Permitting costs consist primarily
8 of project employees and legal services necessary to support the various
9 license and permit applications required by the Turkey Point 6 & 7 project.
10 Exhibit SDS-6, Table 3 provides a detailed breakdown of the Permitting
11 subcategory costs in 2013, including a description of items included within
12 each category.

13 **Q. Please explain any variance between the actual Permitting costs and the
14 costs provided in the 2013 Nuclear Cost Recovery filing.**

15 A. Permitting costs were \$200,609 higher than estimated in the May 1, 2013
16 filing because the SCA hearing lasted longer than expected. This variance is
17 caused by higher than anticipated hearing support costs.

18 **Q. Please describe the costs incurred in the Engineering and Design
19 subcategory.**

20 A. In 2013, Engineering and Design costs were \$1,859,326 as shown in Exhibit
21 SDS-6 Table 4 and Exhibit SDS-1, Schedule T-6, Line 5. Engineering and
22 Design costs consist primarily of FPL employee services and/or engineering
23 consulting services necessary to support the continued permitting of the UIC

1 exploratory well and membership fees for EPRI's Advanced Nuclear
2 Technology working group and the APOG industry groups. Exhibit SDS-6
3 Table 4 provides a detailed breakdown of the Engineering and Design
4 subcategory costs in 2013, including a description of items included within
5 each category.

6 **Q. Please explain any variance between the actual Engineering and Design**
7 **costs and the costs provided in the 2013 Nuclear Cost Recovery filing.**

8 A. Engineering and Design costs were \$861,109 lower than planned. The
9 variance was caused by APOG membership fees that were \$400,000 lower
10 than projected and less work associated with completion of the UIC
11 exploratory and dual zone monitoring well.

12 **Q. Did FPL incur any costs in the Long Lead Procurement, Power Block**
13 **Engineering and Procurement, or Transmission subcategories in 2013?**

14 A. No. In 2013, there were no Long Lead Procurement, Power Block
15 Engineering and Procurement, or Transmission costs. Also, there was no
16 variance in these subcategories from FPL's estimates provided in the 2013
17 NCR filing.

18 **Q. Please describe the Site Selection costs incurred in 2013.**

19 A. FPL's Site Selection work was completed in October 2007 with the filing of
20 the Need Petition. The cost of \$170,485 in this category relates to carrying
21 charges. FPL Witness Grant-Keene supports the calculation of carrying
22 charges.

1 **Q. Were the 2013 project activities prudent and were the related costs**
2 **prudently incurred?**

3 A. Yes. All costs were incurred as a result of the deliberately managed process at
4 the direction of a well-informed, properly qualified management team. The
5 costs were incurred in the process of obtaining the necessary licenses,
6 certifications, and permits for the Turkey Point 6 & 7 project. All costs were
7 reviewed and approved under the direction of the Turkey Point 6 & 7 project
8 management team and were made fully subject to project internal controls.
9 Costs were processed using FPL standard procurement procedures and
10 authorization processes, are reasonable and were prudently incurred.

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

12 A. Yes.

Docket No. 140009-EI
T- Schedules
Turkey Point 6 & 7 Site Selection and Pre-Construction Costs
Exhibit SDS-1, Page 1 of 1

SDS – 1 is in the Nuclear Filing Requirements Book

FEDERAL AUTHORIZATIONS

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
NRC	10 CFR Part 30	By-Product License	Possession of fuel
NRC	10 CFR Part 40	Source Material License	Possession of source material
NRC	10 CFR Part 50	Licensing of nuclear power plant	Approval for construction of nuclear power plant
NRC	10 CFR Part 51 10 CFR Part 52	NRC approval of an Environmental Report	Evaluation of environmental impacts from construction and operation of a nuclear power plant
NRC	10 CFR Part 52	COL	Safety review of the nuclear power plant site
NRC	10 CFR Part 61	Licensing requirements for land disposal of radioactive wastes	Land disposal of radioactive waste that contains by-product source and Special Nuclear Material (SNM)
NRC	10 CFR Part 70	SNM License	Possession of SNM
NRC	10 CFR Part 71	Packaging and transportation of radioactive material	Packaging and transportation of licensed radioactive material
Department of Energy	Nuclear Waste Policy Act (42 U.S.C 10101 et seq.) 10 CFR Part 961	Spent Fuel Contract	Disposal of spent nuclear fuel
USACE	Clean Water Act of 1976 /33 U.S.C section 1344	Section 404 Permit	Discharge of dredge and fill materials into waters of the US
USACE	Rivers and Harbors Act of 1899/ 33 U.S.C. section 401 et. seq.	Section 10 -Rivers and Harbors Act Permit	Excavation or filling within navigable waters of the US

FEDERAL AUTHORIZATIONS (CONT.)

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
USACE	Secretary of the Army	License for use of government owned lands; Modified water deliveries to Everglades National Park	Use of Government owned lands for the purpose of onsite investigations in support of a Phase 1 Environmental Site Assessment, Wetland delineation, preparation of legal description and soil borings
Federal Aviation Agency (FAA)	14 CFR Part 77 - Safe, Efficient Use, and Preservation of Navigable Airspace	FAA Obstruction Permit for Unit 6 Containment Building	FAA Obstruction Permit for Unit 6 Containment Building
FAA	14 CFR Part 77 - Safe, Efficient Use, and Preservation of Navigable Airspace	FAA Obstruction Permit for Unit 7 Containment Building	FAA Obstruction Permit for Unit 7 Containment Building
FAA	14 CFR Part 77 - Safe, Efficient Use, and Preservation of Navigable Airspace	FAA Obstruction Permit for Construction Cranes	FAA Obstruction Permit for construction Cranes - to be obtained as necessary
Department of the Interior (DOI)	RE-DO-53	Special Use Permit; Temporary Construction Easement	Provide access to delineate wetland boundaries within the proposed utility line right of way relocation in Everglades National Park
DOI	RE-DO-53	Special Use Permit; Temporary Construction Easement	Provide access to conduct visual and pedestrian surveys for Phase 1 environmental assessment within the proposed utility line right of way relocation in Everglades National Park

FEDERAL AUTHORIZATIONS (CONT.)

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
US Fish and Wildlife Service (USFWS)	16 U.S.C 1539(a)(1)(A) 50 CFR Parts 13, 17	Endangered species permit to take American crocodile during monitoring	Provides authorization to take (capture, examine, weigh, identify sex, collect tissue samples, mark, radio-tag, radio-track, relocate, release) endangered American crocodile individuals during population monitoring
USFWS	16 U.S.C 703-712	Special purpose salvage permit, migratory birds	Provides authorization to: salvage dead migratory birds, abandoned nests, and addled eggs after nesting season; salvage dead bald or golden eagles; and possess live migratory birds for transport to permitted rehabilitator
USFWS	16 U.S.C. 703-712 50 CFR Part 13:50 CFR 21.41	Federal Fish and Wildlife Permit	Emergency relocation of active migratory bird nests when birds, nests, or eggs pose a direct threat to human health and safety or when the safety of the bird is at risk if the nest and/or birds are not removed

STATE OF FLORIDA AUTHORIZATIONS

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
FDEP, Siting Board	F.S. § 403.501-.518, F.S	Power Plant Site Certification*	Construction and operation of a power plant with more than 75 MW of steam generated power and associated facilities

*Pursuant to the Florida Electrical Power Plant Siting Act (PPSA) all state, regional and local permits, except for certain local land use and zoning approvals and certain state issued licenses required under federally delegated or approved permit programs, are covered under a single "Certification". Because the Certification is the sole license of the state and any agency required for construction and operation of the proposed electrical power plant, it is not necessary to apply for permits individually.

STATE OF FLORIDA AUTHORIZATIONS (CONT.)

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
FDEP, US Environmental Protection Agency (EPA) Region IV review	F.A.C. 62-621	National Pollutant Discharge Elimination System (NPDES) Storm water Operations Permit for Industrial Activities	Operation of an industrial facility
FDEP	Chapter 403 F.S.	Exploratory Well Construction Permit	Allows for the construction of the exploratory well and dual-zone monitor well
FDEP	Chapter 403 F.S.	UIC Well Construction Permit	Allows for the conversion of the exploratory well to an injection well and perform operational testing for up to 2 years
FDEP	Chapter 403 F.S.	UIC Well Construction Permit	Allows for the construction of up to 12 additional injection wells and associated dual - zone monitoring wells and perform operational testing for up to 2 years
FDEP	Chapter 403 F.S.	Class I Well Operation Permit	Allows for the operation of the injection wells. This permit must be renewed every 5 years
FDEP, EPA Region IV review	F.A.C. 62-621	Prevention of Significant Deterioration Construction Permit	Construction and operation of facilities that generate air emissions
FDEP, EPA Region IV review	403.0885 F.S.	Modification of Industrial Wastewater Treatment Facility (IWW) permit	Construction of Units 6 & 7 within the industrial wastewater facility
FDEP/EPA	F.A.C. 62-25, 62-40	NPDES Construction Storm water Permit	Construction of any facility that disturbs 1 acre or more

STATE OF FLORIDA AUTHORIZATIONS (CONT.)

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
Florida Fish and Wildlife Conservation Commission (FWCC)	F.A.C. 68A-9.002; 68A-25.002; 68A-27.003	Special purpose live-capture permit	Provides authorization for live-capture, insertion of data loggers in nests, and collection of samples, on FPL properties of American crocodiles for mark/recapture and scientific data collection; also provides for live-capture, relocation, and release of American alligators and eastern indigo snakes and other endangered or threatened species or species of special concern
FDEP	403.087, F.S. and F.A.C. 62-4, 62-520, 62-522, 62-528 62-550, 62-600, 62-601	Operation of Class V, Group 3 domestic wastewater injection (gravity flow) well	Operation of treated domestic sewage injection well
FDEP	403, F.S. and F.A.C. 62-600, 62-601, 62-602, 62-620, 62-640, 62-699	Operation of domestic wastewater treatment facility (WWTF)	Operation of Turkey Point Power Plant WWTF
FDEP	F.A.C. 62-213	Title V Operations Permit	Operations of facilities that generate air emissions
FDEP	253.12 F.S. F.A.C. 18-18, 18-20, 18-21, 18-22	Sovereign Submerged Lands Easements	Obtain easements for facilities to be located below surface water bodies in state owned lands
FDEP	253.12 F.S. F.A.C. 18-2	Upland Easements	Obtain easements for facilities to be located in state owned lands (uplands)
FDEP, South Florida Water Management District (SFWMD)	F.A.C. 40B-3	Well Construction Permit	Construct, repair, modify, or abandon a well

STATE OF FLORIDA AUTHORIZATIONS (CONT.)

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
SFWMD	F.A.C. 40E-3	Well Abandonment Permit	Well abandonment permits
SFWMD, USACE	33 USC S 408	Federal Jurisdiction Per Section 14 of the Rivers and Harbors Act of 1899	Permission to place facilities in the vicinity of or otherwise use levees owned or controlled by the SFWMD originally constructed by the
SFWMD	Chapter 373 F.S.	Water well construction permits	Pump test for test wells
State of Florida	F.A.C. 40E-3	Well Abandonment Permit	Application to construct, repair, modify, or abandon well
FWCC	F.A.C. 68A-9.002, 68A-9.025, 68A-27	Carcass Salvage Permit	Salvage, mount, and display wildlife carcasses upon encounter for educational or scientific purposes
FWCC	F.A.C. 68A-9.002, 68A-27.005	Removal of nests and ospreys	Removal and replacement of inactive nests of ospreys and other migratory birds

FOREIGN STATE AUTHORIZATIONS

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
Utah Department of Environmental Quality Division of Radiation Control	R313-26 of the Utah Radiation Control Rules	Revision of existing General Site Access Permit	Transport of radioactive materials into the State of Utah

FOREIGN STATE AUTHORIZATIONS (CONT.)

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
Tennessee Department of Environment and Conservation Division of Radiological Health	TDEC Rule 1200-2-10.32	Revision of existing Tennessee Radioactive Waste License-for-Delivery	Transport of radioactive waste into the State of Tennessee

LOCAL AUTHORIZATIONS

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
Miami-Dade County	Chapter 163 F.S.; Miami-Dade County Comprehensive Plan and adopted regulations	Land use and zoning conditional approval (unusual use approval)	Unusual Use (zoning approval) to permit a nuclear power plant (atomic reactors) and ancillary structures and equipment
Miami-Dade County	Chapter 163 F.S.; Miami-Dade County Comprehensive Plan (CDMP) and adopted regulations	CDMP text amendment	Excavation for fill source. Application was withdrawn 03/05/2010
Miami-Dade County	Chapter 163 F.S.; Miami-Dade County Comprehensive Plan (CDMP) and adopted regulations	CDMP text amendment	Temporary access roads

LOCAL AUTHORIZATIONS (CONT.)

Jurisdictional Agency	Authority, Law, or Regulation	Description of Requirement	Activity Covered
Miami-Dade County	Miami-Dade County Ordinances	IW6 Permit (Industrial Well field) for site investigation	Land use -non-residential, within major well field protection areas not served by sanitary sewers
Miami-Dade County Health Department	Chapter 373 F.S.	Water well construction permits	Well installation for hydrologic investigation
Miami-Dade County	Miami-Dade County Code Chapter 24	Domestic wastewater annual operating permit	Stabilization treatment facility
Miami-Dade County	Miami-Dade County Code Chapter 24	Operation of pollution control facility permit	Operation of fleet vehicle maintenance facility that generates waste oil, coolant, and used batteries with a solvent wash tank and served by septic tank
Miami-Dade County	Miami-Dade County Ordinances, Chapter 14	Burn Permit	Onsite combustion of construction debris. Annual permit issued
Miami-Dade County	Miami-Dade County Ordinances, Section 24-35	IW5 Permit (or waiver)	Hazardous materials or hazardous waste – large user or generator. Hazardous waste permit issued 10/01/2008
Miami-Dade County	Miami-Dade County Ordinances, Section 24	Stratospheric Ozone Protection Annual Operations Permit	Use of refrigerants R-12, R-22, R-502 for Robinair Recovery Units, Models 25200, 25200A, 25200B
Miami-Dade County	Miami-Dade County Ordinances, Section 24	Industrial Waste Annual Operations Permit	Onsite disposal of Class III industrial solid waste consisting of earth and earth-like products, concrete, rock, bricks, and land clearing debris
Miami-Dade County	Miami-Dade County Ordinances, 89-104	Marine Facilities Annual Operations Permit	Operation of 1 wet slip, 1 dry slip, 2 commercial vessels

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Turkey Point 6 & 7 Procedures and Work Instructions
Exhibit SDS-3, Page 1 of 1

PROCEDURES AND WORK INSTRUCTIONS

QI4-NSC-1Rev9ProcurementControl
BO-AA-102-1008 r0 Procurement Control
FPL - Affiliate Charge Review Process
FPL - Affiliate Charging FPL
FPL - Clause Recovery Charging Guideline
FPL - Clause Recovery Training Costs
FPL - Shopping Cart Training
FPL - Utility Retention Process
NEE - Project Controls Framework
E&C Monthly Accrual Process
Acquiring/Developing FPL Fixed Assets
PTN 67 - Expense Report Review
PTN 67 - Invoice Review
PTN 67 - Monthly Cost Report Process
PTN 67 - Payroll Distr Review Process
PTN 67 - Project Structure
NNP-SC-01 Vendor Warranty Claims

Note: The procedures and work instructions listed above are project specific to Turkey Point 6 & 7. Project activities also are conducted in compliance with NextEra Energy, Inc. and Florida Power & Light Company Corporate Policies and Procedures.

PROJECT REPORTS

Report	Report Description	Periodicity	Audience
FPL/Bechtel COL Weekly Status Updates	FPL/Bechtel COL Project action items, applicable schedules and RAI review table.	Weekly	Project staff personnel, project management and project controls
FPL COL Weekly Status Updates	FPL COL Project action items, applicable schedules, Action Request look ahead report, Bechtel RAI report and FPL status report	Weekly	Project staff personnel, project management and project controls
Corporate Variance (Cost)	Financial status compared to corporate budget including Current Month (CM), Quarter (QTR), Year-To-Date (YTD) and End-Of-Year (EOY) with variance explanations	Monthly	Executive Management
NFR Variance	Compares filing projections for CM, YTD, EOY, and Prior Month Forecast	Monthly	Project Management and department heads
NFR Summary	Compares filing projections to actual/forecast with major milestone schedule dates	Monthly	Project Management and department heads

PROJECT REPORTS (CONT.)

Report	Report Description	Periodicity	Audience
Project Cost Summary	Financial status by WBS Element including CM, YTD and EOY	Monthly	Project Management
Cost Recovery by Detail	Compares Pre-construction NFR filing projection details to actual/forecast for CM, YTD and EOY	Monthly	Project Management
Pre-construction Cumulative Spend Graph	Visually compares Corporate Budget and NFR Projection to actual and forecast costs	Monthly	Project Management and department heads
Due Diligence Report	Project status for financial reporting process	Quarterly	Executive Management
Quarterly Risk Assessment	Risk assessment focuses on the licensing, permitting and general development activities	Quarterly	Project Management

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Turkey Point 6 & 7 Project Instructions and Forms
Exhibit SDS-5, Page 1 of 2

PROJECT INSTRUCTIONS AND FORMS

Procedure Number	Title	Revision Number	Effective Date
NNP-PI-01	Request For Information (RFI) and RFI Response	3	10/04/2012
NNP-PI-02	Preparation, Revision, Review, and Approval Of New Nuclear Projects Project Instructions	2	09/15/2010
NNP-PI-03	NNP Project Document Retention and Records Processing	3	08/08/2011
NNP-PI-04	COLA Configuration Control and Responses to Requests for Additional Information for Project Applications	3	07/20/2012
NNP-PI-05	NNP Correspondence	1	09/10/2010
NNP-PI-06	NNP NRC Correspondence	4	10/15/2012
NNP-PI-07	NNP Department Training	4	02/29/2012
NNP-PI-08	NNP COLA Review & Approval Process	5	07/20/2012
NNP-PI-10	NNP PTN COLA Related Project Management Briefs, Project Memoranda, and COLA Related Document Reviews	2	09/10/2010
NNP-PI-011	Change Control for COL Application Plant Specific Design Information	2	08/30/2010
NNP-PI-012	Visiting Dignitaries	2	12/06/2011
NNP-PI-013	Technical Review of Commercial Project Documents	1	08/20/2010
NNP-PI-14	Discovery Production Instructions Related to Turkey Point 6 & 7 Combined License Hearing	2	02/28/2011
NNP-PI-15	Exploratory and Dual Zone Monitoring Well Project Incident Response Instructions	0	07/30/2012
NNP-PI-100	Project Schedule and Configuration Control	0	08/03/2009
Desk Top Instruction Number	Title	Revision Number	Effective Date
NNP-AA-01	NNP Regulatory Items & Commitments Data Control	1	05/30/2010
NNP Form Number	Title	Revision Number	Effective Date
NNP-PI-01-01	FPL NNP PTN 6&7 COLA RFI and RFI Response	0	01/31/2008
NNP-PI-02-01	Project Instruction Review and Approval Form	0	03/11/2008
NNP-PI-06-01	NNP Outgoing NRC Correspondence Review & Approval Sheet	2	04/24/2012

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PROJECT INSTRUCTIONS AND FORMS (CONT.)

NNP Form Number	Title	Revision Number	Effective Date
NNP-PI-07-01	NNP Training Attendance Form	0	03/19/2008
NNP-PI-07-02	NNP Training Exemption Form	0	03/19/2008
NNP-PI-07-03	NNP Required Reading Form	4	8/30/2010
NNP-PI-08-01	Comment Resolution Acceptance Form	1	08/18/2008
NNP-PI-08-02	LRB Meeting Summary Form	1	09/08/2008
NNP-PI-09-01	Certification Reference Form	0	10/03/2008
NNP-PI-10-01	NNP Document Review Comment Form	0	03/11/2008
NNP-PI-10-02	NNP Project Management Brief Review And Approval Form	1	01/25/2010
NNP-PI-11-01	Screen and Evaluation of COL Applicant Changes to a DCD	1	6/10/2009
NNP-PI-11-02	Guidance and Instructions for Completing Screens and Evaluations of Changes to DCDs	1	6/10/2009
NNP-PI-11-03	10 CFR Part 52 Screener Training and Qualification Form	1	6/10/2009
NNP-PI-11-04	Departure Screening/Evaluation Review and Approval Form	1	6/10/2009
NNP-PI-13-01	Review and Approval Form	0	3/17/2010
NNP-PI-13-02	Document Review Checklist	1	8/20/2010
NP-AA-01	Regulatory Items & Commitments	0	9/09/2008

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Table 1. 2013 Pre-construction Costs

Category	2013 Actual Costs (\$)
Licensing	25,637,988
Permitting	1,231,174
Engineering & Design	1,859,326
Long Lead Procurement	0
Power Block Engineering & Procurement	0
Total Pre-construction Costs	28,728,488
Transmission	0
Total Pre-construction Costs & Transmission	28,728,488

Note: Totals may not appear to add due to rounding.

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Table 2. 2013 Licensing Costs

Category	2013 Actual Costs (\$)
New Nuclear Project (NNP) Team Costs - NNP FPL Payroll and Expenses, FPL Project Team Facilities, FPL Engineering, FPL Licensing	5,154,094
Application Production - COLA/SCA Contractor, Project Architecture & Engineering, NRC and Design Center Working Group fees	9,107,717
SCA Oversight	50,152
SCA Subcontractors:	
• ECT - Transmission	800,134
• Golder - Environmental	901,961
• McNabb - Underground Injection	20,945
Total SCA	1,773,192
Environmental Services - FPL Payroll and Expenses, External Support Expenses	2,814,532
Power Systems - FPL Payroll and Expenses, System Studies, Licensing and Permitting Support and Design Activities	311,002
Licensing Legal - FPL Payroll and Expenses, External Legal Services, Expert Witnesses	5,680,441
Regulatory Affairs	568,113
New Nuclear Accounting	228,897
Total Regulatory Support	797,010
Total Licensing	25,637,988

Note: Totals may not appear to add due to rounding.

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Table 3. 2013 Permitting Costs

Category	2013 Actual Costs (\$)
Project Communication Support	74,533
Development - FPL Payroll and Expenses, Various Studies	1,062,471
Permitting-Legal Specialists Support	94,170
Total Permitting	1,231,174

Table 4. 2013 Engineering and Design Costs

Category	2013 Actual Costs (\$)
Engineering and Construction Team - FPL Payroll and Expenses, Preconstruction Project Management	728
Pre-construction External Engineering - Construction Planning	470,718
APOG Membership Participation	1,100,000
EPRI Advanced Nuclear Technology	275,000
FEMA Fees	12,880
Total Engineering and Design	1,859,326

Table 5. 2013 Power Block Engineering and Procurement

Category	2013 Actual Costs (\$)
No costs in 2013	0
Total Power Block Engineering and Procurement	0

Note: Totals may not appear to add due to rounding.