BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. 150009-EI

NUCLEAR COST RECOVERY CLAUSE.
_____/

VOLUME 2

(Pages 158 through 333)

PROCEEDINGS:	HEARING
COMMISSIONERS PARTICIPATING:	CHAIRMAN ART GRAHAM COMMISSIONER RONALD A. BRISÉ COMMISSIONER JULIE I. BROWN COMMISSIONER JIMMY PATRONIS
DATE:	Tuesday, August 18, 2015
TIME:	Commenced at 2:35 p.m. Concluded at 4:50 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	LINDA BOLES, CRR, RPR Official FPSC Reporter (850) 413-6734
APPEARANCES:	(As heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
72	Final Order Approving Nuclear Cost Recovery	237	
73	Concentric Energy Advisors Update Re: AP1000	237	
74	FPL Response to OPC's Third Interrogatories No. 13	237	
75	EPA Comments on NRC Draft Environmental Impact Statement	316	

P R O C E E D I N G S

(Transcript continues in sequence from Volume 1.)

CHAIRMAN GRAHAM: FPL, if you'll call your first witness.

MS. CANO: FPL calls Steven Scroggs.

Whereupon,

STEVEN SCROGGS

was called as a witness on behalf of Florida Power & Light Company and, having first been duly sworn, testified as follows:

EXAMINATION

BY MS. CANO:

Q Good afternoon, Mr. Scroggs. Were you just sworn?

A Good afternoon. Yes, I was.

Q Okay. Would you please state your name and business address for the record.

A Steven Scroggs, 700 Universe Boulevard, Juno Beach, Florida 33408.

Q By whom are you employed and what is your position?

A I'm employed by Florida Power & Light Company as the Senior Director of Nuclear Project Development.

Q Did you prepare and cause to be filed 30 pages

of prefiled direct testimony in this case on March 2nd, 2015?

A Yes, I did.

Q And did you also prepare and cause to be filed 39 pages of prefiled direct testimony in this case on May 1st, 2015?

A I have.

Q And you provided one errata item to an exhibit on July 17th, 2015?

A That's correct.

Q Do you have any changes or revisions to your prefiled direct testimony?

A I do not.

Q If I were to ask you the same questions contained in your prefiled direct testimony, would your answers be the same?

A They would.

MS. CANO: Chairman Graham, FPL asks that the prefiled direct testimony of Mr. Scroggs and his errata sheet be inserted into the record as though read.

CHAIRMAN GRAHAM: We will insert Mr. Scroggs' prefiled direct testimony and his -- and his errata sheet into the record as though read.

BY MS. CANO:

Q Did you also sponsor Exhibits SDS-1 through

SDS-12 to your prefiled direct testimony?

A I did.

MS. CANO: And, Chairman, I would just note that these have been premarked for identification as Exhibits 2 through 13 on staff's Comprehensive Exhibit List.

CHAIRMAN GRAHAM: Duly noted.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF STEVEN D. SCROGGS

DOCKET NO. 150009-EI

March 2, 2015

Q. Please state your name and business address.

A. My name is Steven D. Scroggs and my business address is 700 Universe Boulevard, Juno Beach, FL 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company (FPL) as Senior Director, Project Development. In this position I have responsibility for the development of power generation projects.

Q. Please describe your duties and responsibilities with regard to the development of new nuclear generation to meet FPL customer needs.

A. Commencing in the summer of 2006, I was assigned the responsibility for leading the investigation into the potential of adding new nuclear generation to FPL's system, and the subsequent development of new nuclear generation additions to FPL's power generation fleet. I currently lead the development of FPL's Turkey Point Nuclear Units 6 and 7 (Turkey Point 6 & 7).

Q. Please describe your educational background and professional experience.

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

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe FPL's activities and costs incurred in relation to the Turkey Point 6 & 7 project throughout 2014. Accordingly, this testimony contains information with respect to the project as of December 31, 2014. My testimony describes the deliberate, stepwise process FPL continued to manage so that FPL will have the opportunity to add new nuclear generation capacity for its customers. Specifically, I discuss the progress made on the project, key issues faced in 2014, and how those issues were evaluated and resolved. I also explain the Turkey Point 6 & 7 project internal controls and how those controls, supported by internal and external oversight, provided for diligent and professional project execution. Further, my testimony provides the actual expenditures incurred in 2014 and compares those expenditures to the actual/estimated values provided to the Florida Public Service Commission (FPSC) on May 1, 2014. Collectively, my

testimony provides the information necessary to demonstrate that FPL's 2014 costs for the project were prudently incurred.

Q. Please describe how your testimony is organized.

A. My testimony includes the following sections:

1. High Level Project Summary and Issues
2. 2014 Project Activities and Results
3. Project Management Internal Controls
4. Procurement Processes and Controls
5. Internal/External Audits and Reviews
6. 2014 Project Costs

Q. Please summarize your testimony.

A. During 2014, FPL continued to make progress on the licensing and permitting activities required for the Turkey Point 6 & 7 project, and maintained costs within the annual budget. FPL continued its disciplined pursuit of the approvals and authorizations necessary to establish the opportunity to add the benefits of new nuclear generation for its customers. The benefits of adding new nuclear generation to FPL's system were confirmed by the 2014 annual feasibility analysis approved by FPSC Order No. PSC-14-0617-FOF-EI.

On May 13, 2014, FPL was granted State Site Certification by the Power Plant Siting Board for Turkey Point Units 6 & 7. The Final Order provides Certification for the Turkey Point 6 & 7 project, including all associated transmission lines and facilities. In the Nuclear Regulatory Commission

(NRC) licensing process, significant progress was made including receipt of a revised NRC Review Schedule for completing the Combined License (COL) process. Receipt of the revised schedule allowed FPL to conduct a more complete and informed review of the overall project schedule. As a result, the project schedule has been revised, as discussed later in this testimony. FPL has maintained its disciplined and steady approach in the execution of the project, while displaying a willingness to adapt project timelines to ensure an inclusive and complete review.

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

Q. Are you sponsoring any exhibits in this proceeding?

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

- SDS-1, consisting of True-up (T) Schedules covering the 2014 actual period for the Turkey Point 6 & 7 project Site Selection and Pre-construction costs. SDS-1 contains a table of contents listing the T-Schedules sponsored and co-sponsored by FPL Witness Grant-Keene and by me, respectively.
- SDS-2, consisting of a table listing all licenses, permits and approvals FPL is preparing to support the Turkey Point 6 & 7 project.
- SDS-3, consisting of a graphic that compares prior and current Turkey Point 6 & 7 project schedules.
- SDS-4, consisting of a comprehensive list of procedures and work instructions that governed the internal controls processes.
- SDS-5, consisting of a list describing various project reports, their periodicity and target audience.
- SDS-6, consisting of a comprehensive list of project instructions and forms utilized in 2014.
- SDS-7, consisting of summary tables of the 2014 expenditures.

HIGH LEVEL PROJECT SUMMARY AND ISSUES

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

A. The project consists of a two-unit nuclear generating station with associated linear and non-linear facilities. The AP1000 units designed by Westinghouse will each produce 1,100 megawatts (MW). Linear facilities include five

transmission lines, a reclaimed water supply pipeline, potable water lines and a series of roadway improvements in the region. Non-linear facilities include a reclaimed water treatment facility, various buildings and facilities on the Turkey Point site and mitigation projects in the region surrounding the plant. In 2014 the project continued to focus on obtaining the licenses, permits and approvals necessary for construction and operation. A list of these licenses, permits and approvals is included in Exhibit SDS-2.

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

A. The benefits to FPL customers offered by additional nuclear generation are numerous. The key benefits relate to FPL's core mission of providing reliable electric service at reasonable rates. The fuel required for nuclear generation is not dependent on natural gas pipelines, railroad or maritime distribution systems or subject to volatile energy markets. Therefore, nuclear generation greatly adds to the reliability of a system by increasing fuel diversity, fuel supply reliability and energy security. Nuclear fuel markets provide a stable cost input reducing the impact to monthly customer bills that result from fuel price volatility. In addition, the location of 2,200 MW of baseload generation in Miami-Dade County helps to maintain a balance of generation and load in Southeastern Florida. The feasibility analyses approved by the FPSC in 2008 through 2014 demonstrate the robust cost-effective nature of nuclear generation when compared to other baseload generation alternatives. Finally, nuclear generation is recognized as an important component of meeting state

and national energy goals including addressing greenhouse gas reduction. By employing an approach that maintains progress, even during dynamic and demanding times, FPL is creating the opportunity to deliver those benefits on the earliest practicable schedule.

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

A. By taking the steps to obtain the licenses and approvals, further defining the specific project, the opportunity and timeline for customers to benefit from this valuable generation source is more certain. With this approach FPL is accomplishing several key objectives. First, the uncertainties around the approval process are reduced and the final definition of the project is refined. Second, the market for providing the equipment and services needed to construct the project is allowed to further mature, leveraging observations from first wave projects. Lastly, the decision to initiate construction activities will be made with very current information providing the best decision basis.

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

Q. What project-specific issues were monitored in 2014 for the potential impact to cost and schedule of the Turkey Point 6 & 7 project?

A. Project specific issues include 1) FPL system and regional economic developments influencing the annual feasibility analysis, and 2) the pace and

outcome of permit and license application reviews, and 3) the impact of revised NRC Review Schedules and the 2013 amendment to the Nuclear Cost Recovery Statute and Rule.

Q. Was the feasibility of the Turkey Point 6 & 7 project re-evaluated in 2014?

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

The first step takes the form of developing a "break-even" cost to determine what the nuclear project could cost while remaining economically competitive with alternative baseload generation sources. That "break-even" cost is compared to the high end of the project cost estimate range. These results confirmed the economic feasibility of the Turkey Point 6 & 7 project. Additionally, it should be noted that a nuclear facility is the only meaningful opportunity to deliver the qualitative benefits of fuel diversity, energy security and zero greenhouse gas emissions. An updated feasibility analysis will be submitted on May 1, 2015 in the FPSC Nuclear Cost Recovery Clause (NCRC) filing.

Q. Did FPL have sufficient, meaningful, and available resources dedicated to the Turkey Point 6 & 7 project in 2014?

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

2014 PROJECT ACTIVITIES AND RESULTS

Q. What were the major activities for the Turkey Point 6 & 7 project during 2014?

A. The major activities focused on completing the agency reviews of the federal and state applications, and activities supporting conversion of the Underground Injection Control (UIC) exploratory well at the project site. Following receipt of a revised NRC COL Application Review Schedule, FPL conducted a project schedule review and revised the expected in-service dates.

Q. Please summarize the progress FPL made on the Turkey Point 6 & 7 project in 2014.

A. FPL made measurable progress in all regulatory processes towards obtaining all necessary licenses, permits, and approvals. The three key processes include the COL process administered by the NRC, wetland permits under the jurisdiction of the US Army Corps of Engineers (USACE), and the Site Certification process, coordinated by the Florida Department of Environmental Protection (FDEP). In general, 2014 largely completed the

information exchange with the federal agencies and finalized the state certification.

Specific areas of focus in the NRC process included completing the safety and environmental information requirements in 2014. The submission and subsequent acceptance of the information by the NRC led to the NRC publishing a revised review schedule. The USACE permitting process, as designed, has maintained pace with the NRC process.

In the state Site Certification process, the Power Plant Siting Board conducted a final hearing and approved the Final Order for the Site Certification of the Turkey Point Units 6 & 7 project, including transmission corridors and ancillary facilities. The Final Order was appealed by four entities (Miami Dade County, City of Miami, City of South Miami and the Village of Pinecrest).

Additional progress in 2014 included testing the UIC operating well. The FDEP accepted and approved the injection test results on June 2, 2014.

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

and site visits to observe key construction milestones at Southern Company's (Southern) Vogtle Electric Generating Plant (Vogtle) and SCANA Corporation's (SCANA) Summer AP1000 projects in Georgia and South Carolina, respectively.

Q. Please describe the negotiation or execution of any commercial or development agreements supporting the Turkey Point 6 & 7 project in 2014.

A. FPL and Westinghouse continued discussions regarding the Forging Reservation Agreement. In April, it was agreed to extend the expiration date of the current agreement to October 31, 2016. There were no changes to the substantive terms of the agreement.

Additionally, in support of a western transmission line corridor, FPL has been engaged in negotiations with multiple state and federal agencies to exchange its current owned transmission line corridor in the eastern Everglades for a combination of easements and property that would provide a continuous transmission right-of-way between north and south Miami-Dade County that would not be in Everglades National Park (ENP). Collectively, these efforts are referred to as the ENP land exchange. These negotiations are captured in participation agreements, authorized by federal legislation and are undergoing final environmental review by the National Park Service (NPS). A draft Environmental Impact Statement (EIS) was published on January 17, 2014

and progress continued toward completion of the EIS and execution of the Land Exchange.

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

A. In 2014 several factors influenced FPL's decision making related to initiation of Pre-construction activities. The most influential factor is the expected receipt of the COL in late 2016 or early 2017, combined with the changes to the NCRC statute in 2013. The SCA process concluded, however an appeal was filed. The appeal is anticipated to be resolved prior to the expected receipt of the COL, so does not influence FPL's decision making regarding Pre-construction activities.

Q. What areas were considered in the project schedule review?

A. The project schedule review included three major areas. First, the revised NRC COL Application Review schedule provided a better estimate of when key milestones in the COL process could be expected. Second, the Amended NCRC statute and rule now include limitations on FPL's actions and insert additional approval steps that affect the timing and sequence of events for the project. Lastly, actual construction experience at the U.S. AP1000 project sites provides information for FPL to better estimate durations for critical path activities in the early construction period.

Q. Please describe the revised NRC COL Application Review schedule, and the impacts associated with that revision.

A. The NRC COL Application review is conducted in two parts, an Environmental Review and a Safety Review, before the process can proceed to a contested hearing and the NRC for final vote by the Commissioners. On April 17, 2014 the NRC issued a letter to FPL revising the target dates for the Environmental Review. The Draft EIS is targeted to be issued in February 2015 and the Final EIS is targeted to be complete in February 2016. This is approximately two and a half years later than our prior estimated schedule dates.

On August 26, 2014 the NRC issued a letter to FPL revising the target dates for the Safety Review. The Advanced Final Safety Evaluation Report (SER) (with no open items) is targeted to be issued in January 2016, and the Advisory Committee on Reactor Safeguards review of the SER is targeted to be complete in May 2016. The Final SER is targeted for October 2016. Based on the experience of prior licensing processes FPL estimates that with these targeted interim dates, the NRC could issue a COL as early as December 2016 or as late as March 2017. This is approximately two and a half years later than the project schedule included in last year's NCRC filing, which projected a COL in October 2014.

Q. What are the impacts associated with the incorporation of the amended Nuclear Cost Recovery Clause statute and rule?

A. The amended NCRC statute limits FPL from conducting certain key activities in parallel with the licensing process, in advance of receiving the COL. Pre-

construction activities such as site engineering, procurement and design work require significant resources and time to accomplish. Postponing the initiation of Pre-construction activities adds approximately two and a half years of additional time to the project.

Q. How do the separate impacts created by the revised NRC COLA Review Schedule and the amended Nuclear Cost Recovery Clause Statute and Rule combine to affect the overall project schedule?

A. The nature of the amendments to the NCRC Statute make these impacts additive, in that the Pre-construction activities cannot begin any earlier than when the COL is received. This additive effect is depicted on Exhibit SDS-3.

Q. What were the results of the review of construction lessons learned from U.S. AP1000 projects?

A. In the execution of these large capital construction projects, there are significant complexities and parallel activities that must necessarily be coordinated at the construction site to mitigate the potential for unintended conflicts and delays. Careful planning, proper logistical support and resources can mitigate these issues, but the early construction period (to begin after receipt of the COL and necessary FPSC approvals) will be challenging. The critical path involves the initial site clearing, grading and fill activities to establish the at-grade construction site. FPL estimates it will be able to sequence activities such that no incremental impact to project schedule results from these activities. This approach is consistent with producing the earliest practicable schedule from its project schedule review.

Q. What is the net effect on the Turkey Point Unit 6 & Unit 7 in service dates?

A. The combination of federal licensing delays and limitations arising from the revised NCRC process results in an approximate five year change to the in-service dates for Units 6 & 7. The revised in-service dates for Units 6 & 7 are June 2027 and June 2028, respectively.

PROJECT MANAGEMENT INTERNAL CONTROLS

Q. Please describe the project management structure that was responsible for the Turkey Point 6 & 7 project in 2014.

A. The management structure for the Turkey Point 6 & 7 project was modified in 2014 to include Steve Reuwer as Director of Construction. Mr. Reuwer led the activities necessary to revise the project schedule in support of the upcoming 2015 feasibility analysis and determined critical path items for the project. William Maher and I retained management of the NRC licensing and Development aspects of the project, respectively.

Q. Please describe the project management and staffing approach employed on the Turkey Point 6 & 7 project in 2014.

A. The project was staffed by a combination of employees fully dedicated to the project, employees from FPL business units who devoted a portion of their time to the project, and a select group of contractors and subcontractors whose subject matter expertise and skills were required to complete the considerable

tasks related to this undertaking. Leading the staff was a project management team charged with monitoring the day-to-day execution and strategic direction of the project. The project management team provided routine, dedicated oversight of the project including a determination of the timing and content of external reviews. The project management team was supported by project controls professionals that executed the day-to-day project activities and provided direct oversight of procedural compliance. The project also benefited from routine review, supervision, and direction provided by FPL executive management.

Q. What were the key elements of the project management process used to manage the Turkey Point 6 & 7 project in 2014?

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

Q. Please describe the system of internal controls that were applicable to the project in 2014.

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

Exhibit SDS-4 provides a list of procedures and work instructions that governed the internal controls processes and expectations. These procedures and work instructions were employed by dedicated and experienced project controls personnel who provided project oversight and analysis. The Project Controls organization helped to ensure appropriate management decisions were made based upon assessment of available information leading to reasonable costs. Accountability was clear and understood throughout the Project Controls organization and was a cornerstone of the services they provided.

Q. Please describe the administration of these internal controls.

A. A Project Controls Manager provided cost and schedule direction and analysis, coordinated internal and external audit requests, held meetings with project management to review cost and schedule performance, and reviewed all cost, scope changes, schedules and performance indicators. The Project Controls Manager also participated in meetings with project management to review cost and schedule performance, provided information regarding cost, scope changes, schedules and performance indicators, maintained cost templates, supported the production of documents and responses to information requests, and met monthly or as required with department heads on forecasting and commitments.

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

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

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

A. In the course of project development, FPL identified a need to develop some business processes unique to new nuclear deployment. These processes involve conducting business in compliance with NextEra Energy, Inc. and FPL policies and procedures, but also recognize project-specific requirements. For example, specific instructions are needed to ensure compliance with additional NRC requirements for quality control and document retention. Direction for such specific areas of focus is provided to project staff through a set of FPL's New Nuclear Project - Project Instructions (NNP–PI). These Project Instructions establish a standard for the project team which provides guidance, sets expectations and drives consistency. Exhibit SDS-6 provides FPL's comprehensive list of project instructions and forms that were utilized in 2014.

Q. What processes were used to manage project risk?

A. Cost and schedule risk was managed by ensuring the project team recognized and understood the issues facing different sub-teams that comprised the overall project. A mix of weekly meetings with small teams, monthly meetings with select members of the project team, and routine executive briefings ensured the project would benefit from sufficient and timely

communication. Further, the information flow began at the working level and was integrated as it moved to the project management team to ensure the issues were adequately captured and the interaction with other portions of the project was properly assessed. These meetings resulted in several reports identified in Exhibit SDS-5. All of these routine meetings allowed project management to obtain updates from key project team members, provide direction on the conduct of the project activities and maintain tight control over project progress, expenditures, and key decisions.

Each week the project team held multiple status meetings. These meetings, held by teams within the project, tracked project activities at a level that allowed most issues to be identified, discussed, and resolved at the working team level. Schedule and cost metrics were monitored and reported in standard format reports to allow close monitoring of contractor performance.

The project team met monthly to review project schedule, budget performance, and key project issues. Project risk was specifically tracked and reviewed. The monthly Cost Report meeting provided an opportunity to drill down on project cost issues and expectations. Project management also provided a routine update to FPL executive management. This update provided the opportunity for dialogue between the project management team, Business Unit leaders and executive management. While the executive team was always available for consultation on developing issues and opportunities,

the routine meetings ensured a broad range of topics were regularly reviewed and discussed.

The project utilized a quarterly risk assessment tool to identify, characterize and track project risks. Six areas were assessed to identify key issues, estimate probability or likelihood of occurrence (high, medium, and low), and the magnitude of potential consequences (high, medium, and low). Further, mitigation actions or strategies to be employed to manage the risk were described. A monthly project dashboard report complemented the Quarterly Risk Analysis. This document allowed for monthly trending of project risk areas unique to the Turkey Point 6 & 7 project.

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

A. Internal and external audits occur during the course of the project to ensure the project adheres to all corporate guidelines for financial accounting as well as employing best management and internal controls practices. When a deficiency is identified in an audit, an analysis is conducted to determine the cause of the deficiency and corrective actions are implemented to ensure the deficiencies are mitigated going forward. The 2014 audits are described further below.

Additionally, the project is reviewed annually to determine its continued economic feasibility. In 2014, this analysis was conducted using the same

framework as the analysis accepted during the Need Determination proceeding, but was updated to reflect what was currently known regarding project cost, project schedule, and the cost and viability of alternative generation technologies. The analysis presented in the May 2014 NCRC filings demonstrate the project remains feasible. An updated feasibility study will be filed on May 1, 2015.

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

A. FPL is an industry leader in nuclear generation, and as such, has the experience, contacts, and industry presence to engage in many forums for exploration of nuclear industry issues. Nonetheless, the specific challenges of new nuclear deployment have created focus areas requiring additional coordination between entities involved in new plant licensing, construction, and operation. FPL participated in three key industry groups providing value to the Turkey Point 6 & 7 project in 2014. The Design Centered Working Group was formed to provide coordination among owners, vendors, and the NRC related to design modifications of the AP1000. This critical activity is necessary to ensure design changes for the AP1000 are made through a consensus process with the involvement of the NRC to preserve standardization of design, a cornerstone of new nuclear development. FPL also is a member of the AP1000 owners group (APOG) (a consortium of owners of the AP1000 design) and of the Advanced Nuclear Technology

group organized by the Electric Power Research Institute (EPRI). In 2014, William Maher assumed the Chairmanship of APOG.

These groups are primarily forums to identify and resolve issues that are of primary interest to owners, such as staffing, training and maintenance activities. For example, programs such as Procurement Specification Development, Equipment and Nuclear Fuel Reliability improvements, Advancing Welding Practices, and Modular Equipment Testing and Benchmarking provide FPL increased efficiency in program development and implementation resulting in future cost savings. The principle of standardization through operations and maintenance requires this level of industry coordination and dialogue. These different groups have unique and important roles in the successful execution of new nuclear deployment in the U.S. Achieving the goal of industry standardization and realizing the associated economic and operational efficiencies requires active participation by industry participants in these venues.

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

A. For initial commitments, an approved request directed FPL's Integrated Supply Chain (ISC) to go out for bid and formally contract with the selected supplier. Initial commitments required appropriate authorizations including all documentation required by corporate procedures. This included requests for proposal, contracts, purchase orders, notice to proceed, and, if required, a

single or sole source justification. For Contract Change Orders (CCOs), the requests were authorized at the appropriate level and the CCOs executed prior to releasing the supplier to perform the requested scope of work. Tracking systems and processes were used to document and record procurement activities and to obtain the appropriate level of management authorization for expenditures.

Q. How would you summarize FPL's overall approach to Turkey Point 6 & 7 project management in 2014?

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

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

PROCUREMENT PROCESSES AND CONTROLS

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

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

However, in certain situations the use of single or sole source procurement was in the best interest of the company and its customers. In some cases there was a limited pool of qualified entities to perform specific services or provide certain goods and materials. In other cases a service provider was engaged to

conduct a specific scope of work based on a competitive bid or other analysis and additional scope was identified that the vendor could efficiently provide. Circumstances such as the above examples are common in the nuclear industry, and especially on complex long-term projects such as the Turkey Point 6 & 7 project.

Q. Please describe the single and sole source procurement procedures that applied to the Turkey Point 6 & 7 project in 2014.

A. NextEra Energy, Inc. corporate policy NEE-PRO-1470 requires proper documentation and authorization for single or sole source procurement. Such authorization must be from an individual with a commitment/spend authority at least equal to the value of the goods or services being procured. The procedure also calls for a review of the justification for reasonableness. Throughout 2014, FPL maintained its vigilance in creating adequate single or sole source documentation consistent with NEE-PRO-1470.

INTERNAL/EXTERNAL AUDITS AND REVIEWS

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

A. FPL engaged Concentric Energy Advisors (Concentric) to conduct a review of the project internal controls, with a focus on management processes, as was conducted in 2008 through 2014. The 2015 Concentric review of 2014 controls is discussed by Witness Reed.

The FPSC Staff conducts a financial audit of the project ledger and accounts and an internal controls audit annually. The 2015 audits of 2014 project activities are currently underway.

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

A. Yes. An annual FPL internal audit focuses on ensuring that costs charged to the project are for Turkey Point 6 & 7 project related activities and are recorded in accordance with NCR Rule 25-6.0423. This audit is underway to review the project costs for the period January 1, 2014 to December 31, 2014, the results of which will be available to the FPSC, its Staff, and other parties upon completion in the second quarter of 2015.

2014 PROJECT COSTS

Q. Describe the costs incurred for the Turkey Point 6 & 7 project in 2014.

A. As represented in Exhibit SDS-7 and Exhibit SDS-1, Schedule T-6, FPL incurred a total of $19,403,497 in project costs that were necessary for the activities described in this testimony. This is $837,132 less than the May 1, 2014 Actual/Estimated costs of $20,240,630.

These "Pre-construction costs" (as that term is defined by Rule 25-6.0423(2)(g)) are broken down into the following subcategories: 1) Licensing

$16,072,490; 2) Permitting $414,704; 3) Engineering and Design $2,916,303; 4) Long Lead Procurement Advanced Payments $0; and 5) Power Block Engineering and Procurement $0.

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

A. In 2014, Licensing costs were $16,072,490 as shown in Exhibit SDS-7 Table 2 and Exhibit SDS-1, Schedule T-6, Line 3. Licensing costs consisted primarily of FPL employee, contractor labor, and specialty consulting services necessary to support the COL required for construction and operation of the Turkey Point 6 & 7 project and the state certification of the project.

Q. Please explain the reasons behind the variances between the actual 2014 Licensing costs and the costs estimated in the 2014 NCR filing in Docket No. 140009-EI.

A. Several activities resulted in higher than anticipated costs in 2014 while other activities did not occur or were not required. The net result was a positive variance of $510,188 compared to the May 1, 2014 filing. In support of the NRC COLA Safety analysis, additional work scope supporting seismic and geotechnical RAI's was required. Additionally, the NRC fees were significantly higher than forecast. These higher costs were offset by reduced costs in legal and environmental service support and contingency.

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

A. In 2014, Permitting costs were $414,704 as shown in Exhibit SDS-7 Table 3 and Exhibit SDS-1, Schedule T-6, Line 4. Permitting costs consisted primarily of project employees and legal services necessary to support the

various license and permit applications required by the Turkey Point 6 & 7 project. Exhibit SDS-7, Table 3 provides a detailed breakdown of the Permitting subcategory costs in 2014, including a description of items included within each category.

Q. Please explain any variance between the actual 2014 Permitting costs and the costs provided in the 2014 NCR filing in Docket No. 140009-EI.

A. Permitting costs were $173,709 lower than estimated in the May 1, 2014 filing due to not requiring outside legal support and unused contingency.

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

A. In 2014, Engineering and Design costs were $2,916,303 as shown in Exhibit SDS-7 Table 4 and Exhibit SDS-1, Schedule T-6, Line 5. Engineering and Design costs consisted primarily of FPL employee services and/or engineering consulting services necessary to support the continued permitting of the UIC exploratory well and membership fees for EPRI's Advanced Nuclear Technology working group and the APOG industry groups. Exhibit SDS-7 Table 4 provides a detailed breakdown of the Engineering and Design subcategory costs in 2014, including a description of items included within each category.

Q. Please explain any variance between the actual 2014 Engineering and Design costs and the costs provided in the 2014 NCR filing in Docket No. 140009-EI.

A. Engineering and Design costs were $153,236 lower than planned. The variance was caused by additional costs to complete the UIC operating well, and engineering support to conduct the project schedule review. These higher costs were offset by contingency.

Q. Did FPL incur any costs in the Long Lead Procurement, Power Block Engineering and Procurement, or Transmission subcategories in 2014?

A. No. In 2014, there were no Long Lead Procurement, Power Block Engineering and Procurement, or Transmission costs. Also, there were no variances in these subcategories from FPL's estimates provided in the 2014 NCR filing in Docket No. 140009-EI.

Q. Please describe the Site Selection costs incurred in 2014.

A. FPL's Site Selection work was completed in October 2007 with the filing of the Need Petition. The cost of $158,482 in this category relates to carrying charges. FPL Witness Grant-Keene supports the calculation of carrying charges.

Q. Were the 2014 project activities prudent and were the related costs prudently incurred?

A. Yes. All costs were incurred as a result of the deliberately managed process at the direction of a well-informed, properly qualified management team. The costs were incurred in the process of obtaining the necessary licenses, certifications, permits, approvals or authorizations for the Turkey Point 6 & 7 project. All costs were reviewed and approved under the direction of the Turkey Point 6 & 7 project management team and were made fully subject to

project internal controls. Costs were processed using FPL standard procurement procedures and authorization processes, are reasonable and were prudently incurred.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF STEVEN D. SCROGGS

DOCKET NO. 150009-EI

May 1, 2015

Q. Please state your name and business address.

A. My name is Steven D. Scroggs. My business address is 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company (FPL or the Company) as Senior Director, Project Development. In this position I have responsibility for the development of power generation projects to meet the needs of FPL's customers.

Q. Have you previously provided testimony in this docket?

A. Yes.

Q. Are you sponsoring or co-sponsoring any exhibits in this case?

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

- Exhibit SDS-8, Turkey Point 6 & 7 Site Selection and Pre-construction Nuclear Filing Requirement (NFR) Schedules consisting of the 2015 Actual/Estimated (AE) Schedules, the 2016 Projection (P) Schedules and the 2016 True-up to Original (TOR) Schedules. The NFR

Schedules contain a table of contents listing the schedules sponsored and co-sponsored by FPL Witness Grant-Keene and me, respectively.

- Exhibit SDS-9, consisting of summary tables presenting the 2015 Actual/Estimated and 2016 Projected Pre-construction costs for the Turkey Point 6 & 7 project.
- Exhibit SDS-10, Turkey Point 6 & 7 Project Benefits at a Glance
- Exhibit SDS-11, Turkey Point 6 & 7 Customer Savings from Nuclear Cost Recovery Law
- Exhibit SDS-12, Remaining Steps in Turkey Point 6 & 7 Licensing

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide a description of how the Turkey Point 6 & 7 project is being managed and controlled. The project undertakes the steps necessary to license, construct, and operate two Westinghouse designed AP1000 nuclear reactors (AP1000) and associated transmission and ancillary facilities at the Turkey Point site near the existing Turkey Point 3 & 4 nuclear units in southern Miami-Dade County. My testimony provides insight into how project activities are managed given the near term focus on obtaining all licenses, permits, and approvals and the factors influencing key decisions affecting the nature, cost, and pace of that effort. I will also describe the projected expenditures for 2015 and 2016 allowing FPL to support and defend the required licenses, permits and approvals, and to maintain those that have been obtained. FPL's 2015 and 2016 cost recovery

requests, as in past years, include only amounts that are associated with the Licensing Phase currently underway.

Q. Please summarize your testimony.

A. FPL continues to carefully and methodically create the opportunity for additional reliable, cost-effective and fuel diverse nuclear generation to benefit FPL's customers. The approach applied to the management of the Turkey Point 6 & 7 project provides control of cost risks while maintaining progress through the intensive licensing period. The unique qualitative benefits of fuel diversity, energy security and zero greenhouse gas emissions offered by nuclear generation are unchanged from the origin of the project. Quantitative benefits estimated for the project have decreased slightly with improving economic factors, which on balance are beneficial for FPL's customers. Notably, progress in other nuclear industry milestones (i.e., AP1000 U.S. construction) continues to provide positive indicators for the long term feasibility of new nuclear plant deployment.

In 2015 and 2016 FPL will continue its progress on the project primarily by defending an appeal of the state Site Certification Final Order and moving to the final stages of the Nuclear Regulatory Commission's (NRC) Combined License Application (COLA) review process.

The results of the annual feasibility analysis continue to support disciplined pursuit of the project, and reaffirm that the project can provide unique

quantitative and qualitative benefits to FPL customers. FPL's stepwise approach continues to provide FPL customers with the best opportunity to make steady progress on the project. My testimony provides the Florida Public Service Commission (FPSC) with the information necessary to conclude that FPL's 2015 and 2016 project activities are reasonable and in the interests of FPL customers and Floridians, in general.

Q. Would you please provide an overview of the expected benefits of the Turkey Point 6 & 7 project for FPL customers?

A. Yes. Taking into account the updated project information provided in this testimony, FPL expects the Turkey Point 6 & 7 project will:

- Provide estimated fuel cost savings for FPL's customers of approximately $570 million (nominal) in the first full year of operation based on a Medium Fuel Cost forecast;
- Provide estimated fuel cost savings for FPL's customers of approximately $47 billion (nominal) over a 40 year operating life, and approximately $101 billion (nominal) over a 60 year operating life, based on a Medium Fuel Cost forecast;
- Diversify FPL's fuel sources by decreasing reliance on natural gas by approximately 13% beginning in the first full year of two unit operation;
- Reduce annual fossil fuel usage by the equivalent of 29 million barrels of oil or 184 million MMBTU of natural gas; and

- Reduce CO_2 emissions by an estimated 290 million tons over a 40 year operating life, which is the equivalent of operating FPL's entire generating system with zero CO_2 emissions for 7.2 years. Over a 60 year operating life, CO_2 emissions would be reduced by an estimated 481 million tons, the equivalent of operating FPL's entire generating system with zero CO_2 emissions for 11.8 years.

These quantifications are based on the May 2015 project feasibility analysis set forth in FPL Witness Brown's testimony and Exhibit ROB-1. The Turkey Point 6 & 7 project benefits are also reflected in my Exhibit SDS-10.

Q. Please describe how the remainder of your testimony is organized.

A. My testimony includes the following sections:

1. Policy Considerations
2. Project Approach
3. Process and Risk Management
4. Issues Potentially Affecting the Project
5. Key Decisions and Milestones
6. Project Cost and Feasibility
7. 2015 & 2016 Project Costs

POLICY CONSIDERATIONS

Q. Please provide background on Florida's Nuclear Cost Recovery statute.

A. Several key developments led to the establishment of the Nuclear Cost Recovery statute as a means of resolving persistent issues in meeting the need for stable and reasonably priced, reliable electricity for the state of Florida – in a term "fuel diversity". Primarily, the state's reliance on natural gas-fueled generation to meet the growing electricity needs of Floridians, highlighted by volatile fossil fuel prices and supply reliability issues, created concern that insufficient fuel diversity threatened the long term economic stability of the state. These concerns were reinforced in 2005 by hurricanes Katrina and Rita, which impacted natural gas production in the Gulf of Mexico, threatened FPL's fuel supply reliability, drove up natural gas prices and placed financial strain on FPL customers. Florida's significant and growing reliance on natural gas fueled generation is a result of the difficulty in being able to deploy non-gas baseload alternatives; most commonly fossil fuels (coal or oil fueled generation) or nuclear generation. For example, FPL's proposal in 2006 to build a clean coal power plant was denied by the FPSC. Nuclear Cost Recovery was initiated to directly address some of the challenges associated with deployment of nuclear generation to help improve fuel diversity and has been successful for FPL customers, as more than 520 MW of new nuclear capacity was successfully added to the system in 2013.

Q. How did Florida's reliance on natural gas develop?

A. Throughout the last several decades, significant political, economic and technology changes occurred to reshape the state's generation portfolio away from a dependence on foreign oil in the 1970s as existing plants were replaced

by plants operating on other fuel sources. During this period the nuclear industry was dealing with significant regulatory, cost and schedule challenges in deploying new nuclear units – essentially keeping new nuclear capacity from being an option in the late 1980s and 1990s. The other traditional baseload alternative, coal, had only been developed in limited amounts in Florida because of the significant logistical challenges and expense in delivering large quantities of coal from supply regions located in the country's interior and concerns related to emissions. These factors opened the door for a new baseload technology. Deregulation of natural gas as a fuel for electric generation and the introduction and continued improvement of large scale combined cycle gas turbine technology evolved to provide a cost-effective, efficient and low emissions alternative. As a result, combined cycle gas turbine plants have been the technology of choice for most generation additions in the state from the 1990s to today. While customers have benefited from these choices, particularly the affordability and lower emissions of domestic natural gas, recurrence of high and volatile fossil fuel prices or supply reliability issues have impacted customers and the Florida economy in the past and, unaddressed, could impact the state again in the future.

Q. What recent developments occurred to enable new nuclear generation as a deployable alternative?

A. In the late 1990s, the NRC instituted a refined regulatory framework for the licensing of new nuclear generating units. This revised process places a high

focus on the rigor and detail applied during the licensing process, reducing the opportunity for regulatory delays during construction or prior to operation; complications that severely impacted the prior generation of nuclear power plants. In this way, if regulatory delays occur they do so prior to significant investment reducing the financial risk in the process. Also during the 1980s and 1990s, a new generation of nuclear power plants were developed and poised for U.S. and international deployment. The federal Energy Policy Act of 2005 provided incentives and assurances that further motivated renewed interest in nuclear generation. Consortiums were formed between potential owners and manufacturers that furthered several key projects validating that the new designs and licensing processes would be successful. By 2006, a host of new nuclear projects had been proposed in the U.S. With the passage of the Florida Energy Act of 2006 and the FPSC's adoption of the Nuclear Cost Recovery rule, deployment of new nuclear capacity in Florida to address fuel diversity concerns became a realistic option.

Q. What specific considerations are included in the Nuclear Cost Recovery rule as implemented by the FPSC?

A. A core principle of the Nuclear Cost Recovery rule is that of transparency. In order to satisfy that principle, applicants for cost recovery must satisfy a number of extensive reviews. In order to enter the annual cost recovery process, an applicant must first obtain an affirmative need determination verifying that the proposed generation is required to provide cost-effective and reliable electric generation. Annually, within the cost recovery process, the

applicant must provide a full accounting for all factors of the project, including cost, schedule, decisions, and ongoing feasibility. This transparency allows the FPSC to conduct in-depth oversight of the utility's actions in real time – as the project proceeds, rather than in hindsight years after decisions are made and money is spent. The FPSC then makes a "reasonableness" determination as to costs projected for the project (prior to any recovery of those costs), and reviews historical costs for "prudence". Amendments to the Nuclear Cost Recovery statute in 2013 provide for additional interim review steps as the projects proceed from licensing to preparation and subsequently, construction.

Q. How does the existence of the Nuclear Cost Recovery process assist FPL in bringing forward nuclear generation projects?

A. The statute and associated rule provide the requisite regulatory certainty necessary for FPL to undertake the complex and challenging task of adding new nuclear capacity to its system. The process allows FPL to take the long-lead steps of licensing and pre-construction and pays off interest costs during construction, reducing costs to FPL's customers. Additionally, it enables FPL to go to the financial markets and obtain competitive financing rates for the large amount of capital required to fund the construction of the project.

Q. Does the implementation of Nuclear Cost Recovery provide savings for FPL customers?

A. Yes. Nuclear Cost Recovery enables customers to avoid paying for compounded interest during the approximately nine year construction period

and reduces the overall amount that would be recovered from customers under normal rate base treatment by billions of dollars. As shown on Exhibit SDS-11, the Nuclear Cost Recovery framework is projected to save FPL customers about $12.3 billion over the life of the Turkey Point 6 & 7 units.

PROJECT APPROACH

Q. What is FPL's overall approach to developing Turkey Point 6 & 7?

A. FPL continues to develop Turkey Point 6 & 7 through a deliberate and careful process navigating through the four phases of project development: Exploratory, Licensing, Preparation, and Construction. The project is currently focused on the Licensing phase which allows FPL to make progress on obtaining licenses and approvals without taking on the risks and expenditures that would result from committing to a specific construction schedule. For example, through 2016, FPL estimates it will have spent approximately 1% of the high end of the estimated project cost range ($20.0 billion).

A project of this complexity, particularly in the early stages, is subject to external factors that are not under FPL's control. Therefore, FPL's approach has been developed as a step-wise process. Routine monitoring of a wide range of factors and events is accomplished to help increase certainty and predictability, informing each subsequent step.

Q. Please expand on the concept of the step-wise process and how the risks related to the Turkey Point 6 & 7 project are controlled by key decisions.

A. The project team monitors issues at local, state, and federal levels and across technical, commercial, economic, and regulatory areas of interest. The impact on cost, schedule, and quality are routinely assessed through a set of tools and reviews. If review indicates the potential for a considerable cost or schedule impact, mitigation actions are identified and are designed to eliminate, reduce, or defer the impact. If the magnitude of the impact materially affects cost or schedule, or changes the feasibility of the project, a decision is made as to whether such impact is acceptable in light of all current information. Alternative courses of action include continuing with a modified budget and schedule along with available mitigation actions, or halting a portion of the project temporarily while the issue is further assessed or resolved. The alternative of slowing or halting a portion of the project in response to significant events or uncertainties offers a high level of risk control for FPL and its customers.

Recent schedule modifications to accommodate the effects of the revised NRC COLA review schedule, and to incorporate the impacts of the 2013 Nuclear Cost Recovery statutory amendments, demonstrates the implementation of the stepwise approach. The new information was reviewed, and a revised project schedule was developed and vetted.

PROCESS AND RISK MANAGEMENT

Q. How is the Turkey Point 6 & 7 project management organized to maintain an ongoing risk management focus?

A. The Turkey Point 6 & 7 project requires a wide range of skilled team members with experience in the development, design, construction and licensing of nuclear generation. The project management structure of the Turkey Point 6 & 7 project provides for dedicated teams with the requisite subject matter expertise coordinated to meet project objectives. This is accomplished through a project organization and reporting structure that effectively identifies and applies resources to issues while maintaining transparent and open communications.

As described in my March 2, 2015 testimony, the project organization relies on two principal groups jointly responsible for the integrated execution of the project. William Maher, Senior Director of New Nuclear Projects, manages the New Nuclear Plant (NNP) organization with responsibility for NRC licensing. Steve Reuwer, Director of Construction manages project engineering and construction within the NNP organization. I lead all other facets of project development, such as state Site Certification, local zoning approvals, public relations, and FPSC regulatory issues. Messrs. Maher, Reuwer and I report to Mano Nazar, President of Nuclear and Chief Nuclear Officer. Each organization is supported by FPL business units with specific,

recent success in the certification, NRC re-licensing, and permitting of multiple power generation units in Florida and is complemented by our national operating experience with renewable, natural gas, and nuclear generation assets.

FPL also gives careful consideration to how it contracts for support of the many license and permit applications. A combination of competitive bidding and single/sole source procurement is used, in compliance with FPL policies, to manage augmentation of FPL staff with qualified and experienced specialty contractors and service providers.

Q. What process and risk management tools does FPL apply to manage cost, risk, and schedule objectives?

A. FPL uses industry accepted project controls, systems, and practices to obtain a high level of control over the expenditures incurred and projected for all projects. The primary means of control are 1) the project budgeting and reporting process, 2) project schedule and activity reporting processes, 3) the contract management process for external service providers, and 4) internal and external oversight processes. These processes were fully described in my March 2, 2015 testimony and continue to be utilized in the oversight of the project.

Q. Please provide examples of specific tools used to manage the project.

A. The PTN 6 & 7 Licensing Project Dashboard presents issues and the current trends for those issues. Over time, if a problematic issue continues to trend

down or remains neutral, the effectiveness of the project management controls are investigated to determine if changes in approach can create improvement, or if mitigation measures are adequate. Additionally, a quarterly risk summary tracks the assessment of project risks over time. This summary qualitatively gauges the probability of occurrence and impacts to implementation, cost, and schedule aspects of the project.

Q. What activities are undertaken by the project to address industry issues affecting the long term success and execution of the project?

A. FPL is involved in a number of areas to address issues relevant to new nuclear deployment. FPL participates in three specific groups comprised of new nuclear industry owners and design vendor(s). These include the Design Centered Working Group (DCWG), the AP1000 Owners Group (APOG), and the Advanced Nuclear Technology group. The collective purpose of these groups is to identify and resolve issues potentially affecting the licensing, design, construction, operation, and maintenance of the AP1000 design. Individually, each group provides a collaborative forum for owners to work with each other, the design vendor and the NRC to achieve standardized solutions to the issues facing all owners. This enables the industry to maintain a high level of standardization from the earliest stages of new nuclear deployment. Standardization of designs and processes provides benefits to FPL customers in terms of efficiency and cost control.

ISSUES POTENTIALLY AFFECTING THE PROJECT

Q. What are the international, national, and regional issues being monitored for their effect on the Turkey Point 6 & 7 project?

A. FPL monitors issues that can affect the overall timeline or feasibility of the project. Several of these factors, directly or indirectly, influence the scope and pace of regulatory reviews. For example, the NRC's response to the March 2011 Japanese earthquake and tsunami has indirectly resulted in added scope to the safety review of FPL's Turkey Point 6 & 7 COLA and impacted the NRC resources available to conduct that review. Other factors relate to updated information that must be incorporated into FPL's decision making process and feasibility analysis. This information includes the lessons being gathered at the two U.S. AP1000 construction sites, as well as the most current economic forecasts for input into the project planning and analyses processes.

Q. What factors in the federal license and permit review processes may affect the overall timeline of the project?

A. The federal processes include the safety and environmental reviews that inform the NRC COLA process, as well as additional reviews conducted by the Army Corps of Engineers (USACE) in support of the Section 404(b) wetland permit applications. Looking forward, several factors are being monitored for potential impact.

For example, as discussed in my March 2, 2015 testimony, the NRC provided an updated Review schedule for both safety and environmental aspects of the Turkey Point 6 & 7 COLA in 2014. This revised schedule has provided increased certainty regarding the timeline to complete the licensing phase, and has allowed FPL to better estimate the earliest practicable project schedule. NRC progress consistent with this new schedule will be closely tracked.

Additionally, the Atomic Safety and Licensing Board (ASLB) has reviewed contentions to the Turkey Point 6 & 7 COLA over the past several years. All contentions offered by opponents have been dismissed with the exception of one related to certain constituents within waste water from the plant. FPL has conducted additional analyses and will seek to have that contention dismissed. If successful, the Turkey Point 6 & 7 COLA would not require a contested hearing, reducing the time required to obtain a COL.

Q. What factors at the state and local levels may affect the pace of the state Site Certification process?

A. Following the Siting Board Final Order in May 2014, four parties filed an appeal in the Third District Court of Appeals. The appellate process will involve briefing and ultimately a hearing before the tribunal. The timing of the process is dependent on several administrative steps and the court's calendar. It is anticipated that the Appellate court will rule within the next 12 months.

Q. Does FPL monitor the progress of other U. S. new nuclear energy projects?

A. Yes. The new nuclear construction projects at Southern Company's (Southern) Vogtle Electric Generating Plant (Vogtle) in Georgia and SCANA Corporation's (SCANA) Summer AP1000 projects in South Carolina continue to make progress but have experienced delays, primarily related to the fabrication and delivery of modules. In 2014 both projects made progress with the initial safety related construction. The advanced status of these projects serves as a reference for FPL's cost estimates and post-licensing schedule. In general, the status of these projects continues to demonstrate that substantial and consistent progress is being made on deploying the next generation of nuclear projects.

Q. What is the status of a Department of Energy (DOE) Loan Guarantee for the Vogtle and Summer projects?

A. Georgia Power has entered into an agreement for a $3.46 billion loan guarantee for the company's 45.7% interest in the Vogtle 3 & 4 project. Oglethorpe Power, owner of a 30% stake in the Vogtle project, also closed on a $3.06 billion loan guarantee. Municipal Electric Authority of Georgia is pursuing finalization of a $1.8 billion loan guarantee for its minority interest in the Vogtle project. SCANA continues to discuss loan guarantees for the Summer project, but has yet to commit to obtaining the guarantees.

Q. What would be required to obtain a DOE Loan Guarantee for the Turkey Point 6 & 7 project?

A. Essentially, a new solicitation issued by the DOE Loan Guarantee Office would be required. The solicitation would define the eligibility requirements and terms of application which would guide FPL's actions. Upon submission of an application, the Turkey Point 6 & 7 project would be evaluated for eligibility and specific discussions defining the terms and conditions of a loan guarantee would be initiated. FPL is prepared to pursue such a guarantee should one be offered, and should FPL determine that participation would benefit its customers.

Q. What do recent developments related to the national and regional economy indicate with respect to the continued pursuit of the Turkey Point 6 & 7 project?

A. The supply and demand balance in the natural gas industry has created a near term reduction in natural gas prices and has maintained long range forecasts for price at historically low levels. FPL Witness Brown addresses the effect of changes in FPL demand forecasts and natural gas price forecasts on the economic feasibility of Turkey Point 6 & 7.

Q. What do recent developments related to national and regional energy policy indicate with respect to the continued pursuit of the Turkey Point 6 & 7 project?

A. National energy policy remains supportive of nuclear energy in general, and new nuclear energy development in specific. Challenges to existing nuclear generators in certain markets has become a focus of the administration as these generators greatly assist in attaining emission reduction goals set by the

federal government. Further, the closing of the loan guarantees for Vogtle in 2014 underscores the desire of the federal government to promote generation technologies that reduce or eliminate greenhouse gas emissions, maintaining progress towards meeting policy goals. In general, while cautious, policymakers continue to recognize the long term benefits of and need for existing and new nuclear generation capacity.

Regionally, the legislature amended the Nuclear Cost Recovery statute in 2013. Notably, the amendments resulted in maintaining cost recovery as originally envisioned, with added opportunities for the FPSC to review the project prior to initiating major milestones. However, the additional reviews required by the amended statute affect the project schedule and estimated total project cost. Reliability, cost-effectiveness, fuel diversity, fuel supply reliability, and price stability are still benefits to be delivered by increasing nuclear generation capacity and are still needed by FPL's customers. A future plan that does not include new nuclear capacity increases and prolongs reliance on fossil fuels, increases exposure to fuel supply reliability and price volatility, and is not as effective at reducing system emissions, including greenhouse gas emissions, when compared to a plan that does include new nuclear generation capacity.

KEY DECISIONS AND MILESTONES

Q. What will be the focus of the project in 2015 and 2016?

A. The focus will remain on defending the state Site Certification in the appellate process and obtaining the federal licenses and permits necessary to construct and operate the Turkey Point 6 & 7 project. The milestones required to obtain these goals are discussed below and summarized in Exhibit SDS-12.

Q. What specific milestones are expected in relation to completing the NRC licensing process?

A. The Draft Environmental Impact Statement (EIS) was published on February 27, 2015 and public comment sessions were held on April 22, and 23, 2015. The comment period closes on May 22, 2015. The NRC staff and Army Corps will address the comments received, and estimates publication of the Final EIS in February 2016. Using these dates, and assuming the contention stands, FPL estimates that the ASLB would hold a contested hearing in the latter part of 2016.

The NRC staff estimates that the Advanced Final Safety Evaluation Report (SER) will be published in January 2016. A review by the Advisory Committee on Reactor Safeguards (ACRS) will be conducted in May 2016 followed by the Final Safety Analysis Report published in October 2016. With completion of the FSER and the ASLB hearing, the NRC would be able to make a decision on the Turkey Point Unit 6 & 7 COL by March 2017.

Q. Are there assumptions included in these estimates that may change, and therefore affect the schedule?

A. Yes. The NRC assumes that they will be provided the necessary resources to execute the estimated plan. The NRC is addressing competing priorities to resolve the NRC's response to Fukushima for the existing nuclear plants and demands on resources necessary to complete the safety review. The availability of NRC resources to complete the Turkey Point Unit 6 & 7 COLA review will be impacted by the progress made in this important area, and other potential developments.

At a project level, there are two specific assumptions that may offer an opportunity to better the current milestone estimates. The SER timeline assumes timely resolution of two additional rounds of Requests for Additional Information of six months each, where only one round may be necessary. Additionally, the overall timeline assumes the need for the ASLB (contested) hearing. As discussed previously, if the last contention is dismissed, the contested hearing would not be required and the overall schedule may gain six months.

Q. Did FPL anticipate that the NRC regulatory process could be extended?

A. Yes. The potential for this schedule change was foreseen and this type of change is at the core of how FPL has chosen to proceed on this important project. As I indicated in 2013, "Things that are not under FPL's control are federal budget issues, sequestration, and other items that affect the NRC's

resource and their resource allocation." (See Transcript Docket 130009-EI, page 609, lines 12-15). The NRC gives priority to emerging issues that affect the existing nuclear fleet. FPL is making every prudent effort to deliver the benefits of the project on the earliest practicable schedule, while being mindful of the potential for and impact of delays. In fact, this has been FPL's position throughout this project.

Q. What specific milestones are expected related to the USACE Section 404(b) process?

A. As described in prior sections, the USACE will utilize the NRC EIS as its Record of Decision for the Section 404(b) permits. Thus, the timing of these permit activities closely follow the NRC process up to the point of the Final EIS. When the Draft EIS was published for comment, the USACE published a notice of the permit application. In parallel to the National Environmental Policy Act based EIS process, the USACE will similarly complete a review under the Clean Water Act to determine the Least Environmentally Damaging Practicable Alternative. This will include a wildlife consultation with the U.S. Fish & Wildlife Service. It is expected that the Section 404(b) permits could be issued within four to six months following completion of the Final EIS in 2016.

Q. What specific milestones are expected related to the state Site Certification process in 2015 and 2016?

A. As discussed earlier, the Third District Court of Appeals is expected to address the appeal within the next 12 months. Also, FPL will take necessary actions required by Conditions of Certification (CoC) to maintain compliance.

Q. What type of activities are required by the CoC, and what is the timing associated with these activities?

A. The CoC identify specific activities (such as monitoring plans or reports, management plans and wildlife surveys) necessary to demonstrate compliance with the CoC and applicable regulatory requirements. The time requirements for these activities vary based on the activity in question. Some are required within a specified period of time following an event, such as Certification or completion of construction. Some precede an event, such as commencement of construction or commencement of operation. FPL will undertake those activities necessary to maintain compliance with the terms and conditions of the Certification.

Q. Please provide an example of results associated with the state Site Certification process that may affect the project cost or schedule.

A. A monitoring program associated with the Radial Collector Well (RCW) system was included as a CoC that will require significant groundwater and ecological monitoring before, during, and after construction of the RCW system. This is an example of the type of activity that could not be specifically estimated prior to the Certification.

Q. What specific milestones are expected for the Everglades National Park Land Exchange process in 2015?

A. The Draft EIS was published in January 2014 and comments were accepted from the public through March 18, 2014. The U.S. National Park Service will address the comments received and is expected to produce a Final EIS in 2015. Any agreement resulting in the land exchange would occur following the Final EIS, and will likely include terms and conditions as established by the Secretary of Interior.

Q. Are there other specific milestones in the 2015-2016 timeframe that are expected to enable FPL to proceed with pre-construction work after receipt of the COL?

A. Yes. FPL's current project schedule includes filing a request in 2016 to begin pre-construction work, so that it can immediately begin such work upon receipt of the COL. If FPL's request is made concurrent with its ordinary May 2016 NCR filing, it would be considered by the FPSC in the fall and a final order would likely be issued by the end of 2016. This timing aligns well with the current NRC schedule discussed above, which assumes receipt of the COL in the first part of 2017.

Q. What work is FPL performing to obtain this necessary approval?

A. FPL is conducting a number of initial assessments to inform a decision to proceed to begin preconstruction work, as that term is used in Section 366.93, Florida Statutes, and to support the related regulatory approval of such a decision. These initial assessments are a collection of studies that are necessary to compile a coordinated recommendation to continue to pre-construction. These include engineering analyses that will help better define

the project schedule and construction scope, enhancing the accuracy of the cost and schedule estimate to be used for the feasibility analysis that would be presented in support of a decision to proceed to pre-construction. Due to the nature of these initial assessments, some are required to be initiated up to many months in advance of the decision to begin preconstruction. Accordingly, it is reasonable that FPL undertake these activities in 2015 and 2016. FPL has chosen to defer requesting contemporaneous recovery of the costs expended for these initial assessments until they are included in the request for approval to proceed with pre-construction work.

Q. Is there any pre-construction work anticipated in 2015 and 2016?

A. No. Only activities that are related to obtaining or maintaining the necessary licenses, permits or approvals, as discussed above, are planned to be undertaken in 2015 and 2016.

PROJECT COST AND FEASIBILITY

Q. What is the current non-binding cost estimate range for the project?

A. The overnight capital cost estimate range is $3,844/kW to $5,589/kW. When time-related costs such as inflation and carrying costs are included, and CODs of 2027 and 2028 are assumed, the total project cost ranges from $13.7 to $20.0 billion for the 2,200 MW project.

Q. Please explain how the overnight cost estimate is constructed and how it is used to help evaluate the feasibility of the project each year.

A. An overnight cost is developed using the most current information available. An overnight cost provides an estimate of the total project costs assuming all costs occur at one point in time ("overnight") and time-related costs (escalation, interest during construction) are not included. Further, recognizing many things could influence the overnight cost, additional analysis is conducted on each component of the overnight cost to explore how much it could vary, resulting in a cost estimate range. The overnight cost provides an indication of the cost per kilowatt ($/kW) for the project in a given year reference. The 2014 cost estimate range was $3,750/kW to $5,453/kW in 2014 dollars. Updating the cost estimate range provides a cost estimate range of $3,844/kW to $5,589/kW in 2015 dollars. The cost estimate range has been adjusted to current year dollars by assuming a 2.5% escalation over the years between 2007 and present. While the actual escalation experienced has been generally lower, retaining this simple assumption is conservative and consistent with past year evaluations.

A breakeven cost analysis is developed by FPL's Resource Assessment and Planning Department, and is further discussed by FPL Witness Brown. This breakeven cost is provided as an overnight cost and is directly compared to the cost estimate range to assess the economic feasibility of the project.

Q. Have there been any revisions to project features or design or any industry-wide developments in the past year that suggest a revision to the overnight capital cost estimate range?

A. No. A review was conducted to capture any potential changes and estimate the potential cost impact. No significant changes or developments have occurred in the past year indicating any revisions are necessary to the project cost estimate range. In general, the Final Order resulting from the SCA preserved the project and ancillary features as proposed by FPL, and is therefore consistent with the project as envisioned in the current cost estimate range.

Q. Does FPL's cost estimate range continue to be reasonable?

A. Yes. The FPL cost estimate range continues to be reasonable based on the annual review of the Turkey Point 6 & 7 capital cost estimate, a comparison to other U.S. AP1000 project progress reports, and Concentric Energy Advisors' review of U.S. AP1000 project overnight and total estimated costs.

The comparison to other U.S. AP1000 projects provides confidence due to the advanced nature of the projects being reviewed. The costs being experienced by the lead projects at Vogtle and Summer are informed by committed contracts, are well into the construction cycle, and include significant equipment and material purchases. Therefore, the total project costs estimated for the projects in construction are more certain.

Q. What future activities are anticipated that will provide information to revise the overnight capital cost estimate range?

A. Negotiations on the Engineering, Procurement and Construction contract will provide more information including price, terms and schedules to support an

execution plan for project construction. That information will be integrated with continued observations of the progress of preceding U.S. projects to inform and revise the Turkey Point 6 & 7 non-binding cost estimate, as warranted.

Q. What factors may impact the overall project cost estimate, including time-related costs such as price escalation and carrying costs?

A. The primary factors affecting the total project cost will be the actual labor and materials costs experienced during the Preconstruction and Construction periods. The certainty around these costs will increase as preceding projects move through the stages of construction and as FPL negotiates the principal contracts for engineering, procurement, and construction of the project. The pace of expenditures is also a critical factor that will impact total project costs. Escalation of future costs and carrying costs on expended funds are time related factors.

Q. What are the most current Turkey Point 6 & 7 economic feasibility analysis results?

A. As discussed by FPL Witness Brown, the most current feasibility analysis affirms the projected cost effectiveness and benefits associated with the Turkey Point 6 & 7 project using the same basic analytical approach applied in the Need Determination proceeding for the project and the six prior NCRC filings. The analysis calculated a projected "break-even" cost for new nuclear; a cost that results in the same life cycle costs (or cumulative present value of revenue requirements) as an alternative plan relying on natural gas

combined cycle units assuming a 40 year operating life. The analysis was conducted for seven scenarios comprised of combinations of three fuel and three emission cost forecasts. The projected break-even costs were higher than FPL's non-binding cost estimate range for its Turkey Point 6 & 7 project in two of seven scenarios, and within the cost estimate range for the other five scenarios. These results indicate that the Turkey Point 6 & 7 project is clearly quantitatively superior to the combined cycle gas alternative plan in two scenarios and within the non-binding cost estimate range in the other five scenarios. The comparison to a natural gas facility must also recognize the qualitative benefits offered only by a nuclear facility; fuel diversity, energy security and zero greenhouse gas emissions.

Q. Is a 40 year operating life assumption conservative?

A. Yes. The term of forty years was chosen as a conservative estimate of the operating life of the units based on the initial term of the NRC Combined License. Historically, the initial license terms have been renewed for an additional 20 years for many of the existing reactors in the U.S. today. FPL's Turkey Point Units 3 and 4 and St. Lucie 1 and 2 units have successfully extended the original license terms by 20 years. Therefore, it is reasonable to assume that a 20 year extension would be attainable for the Turkey Point Unit 6 & 7 project.

Q. How would the breakeven analysis results change if it is assumed that the operating life of Turkey Point Units 6 and 7 is actually 60 years?

A. The results indicate that the Turkey Point 6 & 7 project is quantitatively superior to the combined cycle gas alternative plan in six scenarios, while one scenario falls within the cost estimate range.

Q. In February 2010, FPSC Staff provided a list of factors for consideration in the feasibility analysis. Have those factors been considered?

A. Yes. FPL Witness Brown discusses the economic factors and I discuss the non-economic factors.

Q. What non-economic factors affect the project's long term feasibility?

A. Non-economic factors include the feasibility of obtaining all necessary approvals (permits, licenses, etc.), the ability to obtain financing for the project at a reasonable cost, and supportive state and federal energy policy.

Significant progress continues on the federal, state, and local approvals required for the construction and operation of the project. During 2014, the state certification process was completed, pending appeal. Similarly, the federal licensing efforts are moving forward in 2015 and are estimated to be complete by 2017 as discussed previously. While the review process has taken longer than originally anticipated, the process is proceeding substantively as expected.

Financing will be determined as the project proceeds through approvals to construction. The lead projects, Vogtle and Summer, have successfully obtained financing, and Vogtle has closed on a significant federal loan

guarantee. FPL will continue its dialogue with the financial community to help maintain FPL's capability to obtain financing with reasonable terms.

As discussed earlier in this testimony, state and federal energy policy continues to be generally supportive of new nuclear generation for a host of reasons. Recent legislative activity in Florida sought to revise some aspects of the Nuclear Cost Recovery statute, but preserve the opportunity it provides. The high reliability, low and stable cost, and zero greenhouse gas emission profile of nuclear generation technology remains highly compatible with key energy policy objectives.

Q. Does FPL intend to pursue completion of the Turkey Point 6 & 7 project?

A. Yes. The critical path to completing Turkey Point 6 & 7 requires obtaining the licenses and approvals necessary to construct and operate Turkey Point 6 & 7. Once the project is closer to obtaining the approvals, FPL will be able to refine the economic assumptions and incorporate the experience of other new nuclear projects as well as how state and federal energy policies have evolved. The FPSC will continue to have the opportunity to review FPL's plans through the NCRC process.

Q. Does FPL have sufficient, meaningful, and available resources dedicated to the Turkey Point 6 & 7 project?

A. Yes. As demonstrated throughout this testimony, FPL has in place an appropriate project management structure that relies on both dedicated and matrixed employees, the necessary contractors for specialized expertise, and a

robust system of project controls. These resources enable the project to progress through the current licensing phase.

2015 & 2016 PROJECT COSTS

Q. How are the 2015 Actual/Estimated costs and the 2016 Projected costs developed?

A. FPL has a disciplined ground-up process to develop project budgets. This process was used in the initial project budgeting activity and is routinely reviewed and evaluated for adequacy and accuracy as additional information becomes available. The estimates of the 2015 Actual/Estimated and 2016 Projected costs were completed in accordance with FPL's budget and accounting guidelines and policies. Where services are contracted, rates are provided by the contractor and reviewed to verify the charged rates are consistent with FPL's experience in the broader industry. The cost estimates were compared to other costs being incurred by the Company for similar activities and found to be reasonable.

Q. Please provide a high level summary of the 2015 Actual/Estimated and the 2016 Projected costs presented in this filing.

A. The costs associated with the Turkey Point 6 & 7 project in 2015 and 2016 are focused on supporting the licensing and permit application reviews underway, supporting compliance for permits and approvals obtained, and conducting the

necessary initial assessments to support decision making and necessary approvals for proceeding to preconstruction work.

Q. What changes may occur that could affect these cost projections?

A. The pace and content of the application reviews may impact the actual costs in 2015 and 2016, however this is anticipated to be significantly less than experienced in the past as the processes are coming to a close.

Q. Please summarize the costs included in this filing for Turkey Point 6 & 7 Pre-construction activities.

A. Schedule AE-6 of SDS-8 presents the 2015 Actual/Estimated costs in the following categories: 1) Licensing $15,377,764; 2) Permitting $291,349; 3) Engineering and Design $4,026,573; 4) Long Lead Procurement advance payments $0; 5) Power Block Engineering and Procurement $0; 6) Transmission $0; and 7) Initial Assessments $1,842,105.. Schedule P-6 of SDS-8 presents the 2016 Projected costs in the following categories: 1) Licensing $17,047,175; 2) Permitting $520,642; 3) Engineering and Design $4,684,208; 4) Long Lead Procurement $0; 5) Power Block Engineering and Procurement $0; 6) Transmission $0; and 7) Initial Assessments $3,157,895. Table 1 of Exhibit SDS-9 provides a summary of the Actual/Estimated 2015 and Projected 2016 Pre-construction costs. The descriptions in the Exhibit SDS-9 tables are illustrative and do not provide full line item detail.

Q. Please describe the activities included in the Licensing category for the 2015 Actual/Estimated costs and the 2016 Projected costs.

A. For the period ending December 31, 2015, Licensing costs are estimated to be $15,377,764 as shown on Line 3 of Schedule AE-6 of SDS-8. For the period ending December 31, 2016, Licensing costs are projected to be $17,047,175 as shown on Line 3 of Schedule P-6 of SDS-8. Table 2 of Exhibit SDS-9 provides a detailed breakdown of the Licensing subcategory costs.

Licensing costs consist primarily of FPL employee and contractor labor and specialty consulting services necessary to support the various license and permit applications and maintain compliance with the conditions of the approvals and permits obtained for the Turkey Point 6 & 7 project. For example, upon receipt of a COL from the NRC, FPL will be required to have the necessary resources in place to support the license. This will include specialty software to maintain the required license documentation and the necessary qualified professionals to administer the processes. These expenditures result in an increase in NNP Team Costs in 2016 as compared to 2015.

In 2015 and 2016 Licensing costs are primarily related to the NRC COLA and USACE 404(b) permit processes. Licensing costs are developed in accordance with budget and accounting guidelines and policies. Further, these cost estimates were compared to FPL's extensive experience with the development and permitting of new generation projects in Florida and found to be reasonable.

Q. What are the major differences between the 2015 Actual/Estimated values and those projected in the May 1, 2014 filing for the Licensing category?

A. The Actual/Estimated values for the Licensing category in 2015 are $4,350,513 more than the amount projected for 2015 in 2014. The principal contributors to the increased requirements come from two areas. The new forecast includes an increase of approximately $3,200,000 in anticipated NRC fees and a corresponding increase in technical support of approximately $2,000,000, partially offset by reductions in other cost categories. Both expenditures are driven by the comprehensive review of seismic issues, as a part of an overall heightened industry review of seismic-related areas.

Q. Please describe the activities in the Permitting category for the 2015 Actual/Estimated costs and the 2016 Projected costs.

A. For the period ending December 31, 2015, Permitting costs are estimated to be $291,349 as shown on Line 4 of Schedule AE-6 of SDS-8. For the period ending December 31, 2016, Permitting costs are projected to be $520,642 as shown on Line 4 of Schedule P-6 of SDS-8. Table 3 of Exhibit SDS-9 provides a detailed breakdown of the Permitting subcategory costs, including a description of items included within each category. Permitting costs include costs for the Development team, in-house legal support, and resources to conduct necessary outreach educating stakeholders about the project.

Q. What are the major differences between the 2015 Actual/Estimated values and those projected in the May 1, 2014 filing for the Permitting category?

A. The Actual/Estimated values for the Permitting category in 2015 are $45,665 more than the amount projected for 2015 in 2014. The increased expenditures are for continuing external legal support for the Land Exchange and Development support beyond the time frame projected in the May 1, 2014 filing.

Q. Please describe the activities in the Engineering and Design category for the 2015 Actual/Estimated costs and the 2016 Projected costs.

A. The Engineering and Design activities performed in 2015 and 2016 are primarily related to participation in industry groups and engineering support for the COLA review. For the period ending December 31, 2015, Engineering and Design costs are estimated to be $4,026,573 as shown on Line 5 of Schedule AE-6 of SDS-8. For the period ending December 31, 2016, Engineering and Design costs associated with preliminary engineering activities are projected to be $4,684,208 as shown on Line 5 of Schedule P-6 of SDS-8. Table 4 of Exhibit SDS-8 provides a detailed breakdown of the Engineering and Design subcategory costs, including a description of items included within each category.

Costs for participation in industry groups include the Electric Power Research Institute Advanced Nuclear Technology working group (with annual fees of

$250,000 in 2015 and $275,000 in 2016) and the DCWG (no external charge to participate in this group). The fee for participation in APOG is expected to be $3,000,000 in 2015 and $3,000,000 in 2016. These costs are necessary to obtain the benefits of membership described earlier in this testimony.

Q. What are the major differences between the 2015 Actual/Estimated values and those projected in the May 1, 2014 filing for the Engineering and Design category?

A. The Actual/Estimated values for the Engineering and Design category in 2015 are $2,118,785 higher than the amount projected for 2015 in 2014. The principal cause of this increase is the increase in APOG membership contribution.

Q. Please describe the activities in the Long Lead Procurement category for the 2015 Actual/Estimated costs and the 2016 Projected costs.

A. For the period ending December 31, 2015 and December 31, 2016, Long Lead Procurement costs are projected to be $0 as shown on Line 6 of Schedule AE-6 of SDS-8 and line 6 of Schedule P-6 of SDS-8. Future Long Lead Procurement costs are anticipated to be included in the Power Block Engineering and Procurement cost category.

Q. Please describe the activities in the Power Block Engineering and Procurement category for the 2015 Actual/Estimated costs and the 2016 Projected costs.

A. For the period ending December 31, 2015 and, Power Block Engineering and Procurement costs are estimated to be $0 as shown on Line 7 of Schedule AE-

6 of SDS-8. For the period ending December 31, 2016, Power Block Engineering and Procurement costs are projected to be $0 as shown on Line 7 of Schedule P-6 of SDS-8.

Q. Please describe the activities in the Transmission category for the 2015 Actual/Estimated costs and the 2016 Projected costs.

A. For the period ending December 31, 2015, Transmission expenditures are estimated to be $0 as shown on Line 25 of Schedule AE-6 of SDS-78. For the period ending December 31, 2016, Transmission expenditures are projected to be $0 as shown on Line 25 of Schedule P-6 of SDS-8.

All 2015 and 2016 costs associated with Transmission planning are related to the licensing and permitting activities, and therefore are appropriately included in those categories, described above.

Q. Please describe the activities in the Initial Assessments category for the 2015 Actual/Estimated costs and the 2016 Projected costs.

A. For the period ending December 31, 2015, Initial Assessment expenditures are estimated to be $1,842,105 as shown on Line 8 of Schedule AE-6 of SDS-8. For the period ending December 31, 2016, Initial Assessment expenditures are projected to be $3,157,895 as shown on Line 8 of Schedule P-6 of SDS-8. These costs consist of studies required to further refine the revised schedule and substantiate assumptions supporting the feasibility analysis. As discussed previously, these costs are reasonable to support a decision to proceed to preconstruction and to support the filings FPL will make to seek approval to

begin preconstruction. Nonetheless, FPL is not seeking to recover these costs as part of its 2016 NCR amount. Therefore, they have been adjusted out of FPL's request, as shown on Line 14 of Schedule AE-6 and Line 14 of Schedule P-6.

Q. Are FPL's Actual/Estimated 2015 and Projected 2016 Turkey Point 6 & 7 costs reasonable?

A. Yes. FPL's 2015 expenditures of $21,537,791 and 2016 expenditures of $25,409,920 are reasonable and necessary to obtain the licenses, permits and approvals which will allow FPL to carefully and methodically create the opportunity for additional reliable, cost-effective and fuel diverse nuclear generation to benefit FPL customers. FPL uses a robust system of project controls, systems, and practices to obtain a high level of control over the expenditures incurred and projected. Together, these support a finding that FPL's Actual/Estimated 2015 and Projected 2016 expenditures are reasonable.

Q. Does this conclude your direct testimony?

A. Yes.

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In re: Nuclear Cost Recovery Clause	DOCKET NO. 150009-EI FILED: July 17, 2015

ERRATA SHEET – STEVEN SCROGGS

March 2, 2015 Exhibits

EXHIBIT #	PAGE #	LINE #	
SDS-7	Pages 1-3	Header Line 2	Change "2013" to "2014"

BY MS. CANO:

Q Would you please provide a summary of your direct testimony to the Commission.

A Yes, I will.

Good afternoon, Chairman and Commissioners. I'm happy to be here again to answer questions for you on this important project. The purpose of my testimony is to describe the activities and the managerial decisions associated with the Turkey Point Unit 6 and 7 project. I will cover the time period from January 2014 to present, and then discuss the plans for the project through 2016.

FPL continues to work diligently to obtain all the necessary license, permits, and approvals for construction and operation of Turkey Point 6 and 7. In the past 18 months, our team has completed the state site certification process resulting in approval by the Power Plant Siting Board in May of 2014. We have also made progress in pursuit of the federal licenses and permits, and have received greater certainty from the Nuclear Regulatory Commission regarding the remaining schedule for the activities in that effort.

The content of my testimony and the accompanying exhibits and detailed nuclear filing requirements that I sponsor describe the following:

That FPL's disciplined and step-wise approach to deploying new nuclear generation continues to provide FPL customers the best opportunity to obtain the quantitative and qualitative benefits of nuclear generation as summarized in Exhibit SDS-10 and do so on the earliest practicable schedule; it also supports that FPL's actual costs in 2014 have been prudently incurred; FPL's actual estimated costs for 2015 and projected costs for 2016 are reasonable; that the results of the 2014 project cost and schedule review are reasonable; and that the Turkey Point 6 and 7 project remains quantitatively and qualitatively feasible.

With respect to initial assessments, the filing FPL requests -- in this filing, FPL requests a reasonableness determination on those costs. The initial assessment studies that are a direct result of the 2014 project schedule review are reasonable and necessary activities that can be achieved now to enhance future feasibility analyses.

FPL plans to seek recovery of the initial assessment costs when that feasibility analysis is before the Commission, and that feasibility analysis is expected to be presented next year, in 2016. I look forward to answering your questions. This completes my

summary.

MS. CANO: Mr. Scroggs is available for cross-examination.

CHAIRMAN GRAHAM: Okay. OPC.

MS. CHRISTENSEN: Good afternoon, Commissioners. I have a clarifying question before we begin.

We have exhibits that we would like to use with this witness. Would your preference be to hand them out at the beginning of my cross-examination or as the exhibits come up throughout the cross-examination?

CHAIRMAN GRAHAM: I'm sorry. Would you say that one more time, please?

MS. CHRISTENSEN: Certainly. I have several exhibits to use with this witness during cross-examination. Is your preference to hand them out at the beginning, right now, or would you rather wait as they come up?

CHAIRMAN GRAHAM: Let's just go ahead and pass them all out right now.

MS. CHRISTENSEN: Okay.

CHAIRMAN GRAHAM: That would be simplest. Thanks for asking.

MS. CHRISTENSEN: You're welcome.

CHAIRMAN GRAHAM: Okay. So the first one is

going to be 72. Which one would that be?

MS. CHRISTENSEN: The first exhibit that I will be using is the exhibit listed Final Order Approving Nuclear Cost Recovery.

CHAIRMAN GRAHAM: Okay.

MS. CHRISTENSEN: The second exhibit would be the Concentric Energy Advisors Update to the AP1000.

CHAIRMAN GRAHAM: That's 73.

MS. CHRISTENSEN: And then the third one I will be using during this cross-examination is the FPL Response to OPC Third Set of Interrogatories No. 13.

CHAIRMAN GRAHAM: And that's 74.

Is everybody clear on the markings?

(Exhibits 72 through 74 marked for identification.)

Okay. Ms. Christensen.

MS. CHRISTENSEN: Okay. Thank you.

EXAMINATION

BY MS. CHRISTENSEN:

Q Good afternoon, Mr. Scroggs.

A Good afternoon.

Q Let me start off with hopefully a question we can agree on. Would you agree that the Turkey Point Unit 6 and 7, for them to proceed to the preconstruction phase of the project, the project needs to be feasible?

A Yes. And if I could expand on that, I believe we are in the preconstruction phase of the project as defined by the statute in Section (1)(f).

MS. CHRISTENSEN: I'm going to object to any call for a legal conclusion or interpretation of the statute and move to strike that portion of the testimony.

CHAIRMAN GRAHAM: I agree with you.

BY MS. CHRISTENSEN:

Q Would you agree that the feasibility of Turkey Point Units 6 and 7 should be based on the project costs of the plant being reasonable?

A The feasibility -- yes. The feasibility analysis includes many components, including project cost estimate.

Q Would you agree that it's important for Units 6 and 7 project to be economically beneficial to FPL's ratepayers?

A Yes.

Q And wouldn't you agree that FPL has the burden to demonstrate the benefits of Turkey Point Units 6 and 7 to this Commission by an economically viable analysis?

A Yes.

Q Okay. Would you agree that the cost of the

project, the total cost of the project is a key input to the economic analysis?

A Yes.

Q And you would agree that FPL must use a realistic, up-to-date cost estimate in this analysis?

A Not necessarily.

Q Okay. Would you agree that the cost estimate needs to be as up to date as you can possibly make that information?

A Yes.

Q And would you agree that the information that used -- that's used in that cost estimate must be as realistic and based on current pricing as possible?

A Yes.

Q Would you agree that large amounts of money will be spent in the preconstruction phase?

A Yes.

Q Okay. Now I passed out an exhibit, Exhibit 72, for your reference, and that's an excerpt from the final order on the nuclear cost recovery docket in 2009 related to the Levy plant, and I wanted to ask you a question regarding that.

Isn't it correct that for the Levy nuclear -- excuse me. Let me start that question over again.

Isn't it true that for the Levy Nuclear

Project the utility spent approximately 262 million in jurisdictional preconstruction costs through 2009?

MS. CANO: Objection. The Levy Nuclear Project is outside the scope of this witness's testimony.

MS. CHRISTENSEN: I think we are talking about the scope of how much cost can be incurred during preconstruction. And to the extent that the witness is aware of how many -- how much that actual magnitude can be, I think it's relevant to this line of questioning and to the testimony he's sponsoring. Because he's sponsoring the reasonableness of the project cost, and they're starting to request preconstruction costs be incurred.

CHAIRMAN GRAHAM: Not to prolong things, I think you need to walk him through it. First ask him what his knowledge is, and then go from there.

MS. CHRISTENSEN: Certainly.

BY MS. CHRISTENSEN:

Q Are you familiar with the Levy Nuclear Power Plant project as a participant in this docket every year?

A I'm familiar with the project as presented by Progress and then subsequently by Duke as a project.

Q Okay. And are you generally familiar with the

scope and magnitude of the preconstruction costs that Duke Energy incurred for preconstruction in the Levy power plant?

A I am not intimately familiar with the details of those costs other than to know that they're significantly higher than what FPL has incurred with relation to Turkey Point 6 and 7.

Q Okay. I'm not sure if I understand. Would anything refresh your recollection as to what the costs for preconstruction that were spent by Duke Energy for the Levy Nuclear Power Project for preconstruction?

A Again, it's never been my testimony to represent the Duke -- or Levy Nuclear Project costs. I do not have detailed knowledge of those to which I could testify, no.

Q Okay. Well, let me pass on that, and the order will speak for itself.

CHAIRMAN GRAHAM: Sure.

BY MS. CHRISTENSEN:

Q Would you agree that the Turkey Point Unit 6 and 7 project feasibility analysis should show that the project remains economically viable before entering the preconstruction phase?

A Yes.

Q And that one of the primary cost drivers for

the feasibility analysis is the capital cost of Turkey Point Units 6 and 7 project?

A That's a component of the feasibility analysis.

Q Okay. Would you agree that the best estimate of project capital costs would be based on firm bids from an engineering procurement and/or construction contract or contractors?

A No.

Q What would -- what would be better than a firm bid from an engineering and procurement and construction contractor?

A An accurate firm bid based on an executable schedule and a well understood scope of work that has been conducted in the preconstruction phase. Those are aspects of the project that do not exist right now for Turkey Point 6 and 7. So a firm bid is essentially meaningless without the other essential components of contract terms and conditions, schedule, and defined scope of work.

Q So can I understand from your response that you're not disagreeing with the statement that a firm bid would be the best estimate of capital cost for this project?

A If qualified that those -- that firm bid would

also be conducted at the time that a set of terms and conditions have been negotiated, a firm schedule is known and able to be executed, and that the, the process has approvals to move forward.

Q So that's a yes?

A With those qualifications, that's a yes.

Q Okay. Short of having firm bids, FPL has been using the plants under construction as a check on FPL's cost estimate range; is that not correct?

A Not exactly correct. I'm not sure what you mean by check, but I can expand, if you'd like.

Q Well, let me refer you to page 27, lines 9 through 12 of your direct testimony.

A Is that May?

Q That would be your -- I'm sorry. Yes, I believe that's your May testimony. Isn't it correct that on lines 9 through 12 you say comparison of other U.S. AP1000 project progress reports, and Concentric Energy Advisors' review of U.S. AP1000 project overnight costs and total estimates were used in the annual review of the Turkey Point 6 and 7 capital cost estimates?

A That's correct.

Q And, in fact, in your May 1st testimony you say that FPL's cost estimate range continues to be reasonable based on this annual review of the Turkey

Point 6 and 7 capital cost estimates for -- against -- as compared to, excuse me, the U.S. AP1000 project progress reports and Concentric reports; correct?

A Yes. Let me just explain. I stumbled on your word "check." When we did a cost estimate check in 2010, we took actual Westinghouse pricing information, integrated that with an updated balance of plant cost estimate, put those together. That was a check.

In terms of this, it's an important benchmark and we compare ourselves against that benchmark, but it's not a term of art --

Q Okay.

A -- that I've used in the past.

Q With that clarification, and we'll get to the Westinghouse pricing information in just a second, but there was a comparison made to the current U.S. plants that are being built or under construction, AP1000, which is the Summer and Vogtle projects; correct?

A That's correct.

Q Okay. I would refer you to the exhibit that was already handed out, and that would be Exhibit 73. And that is the Concentric Energy Advisors update to the AP1000 projects and costs dated December 2014. Do you have that?

A Yes, I do.

Q Okay. Is the Concentric Advisors' Witness Reed, is he a Concentric advisor with the --

A Witness Reed is the -- is the principal at Concentric Energy Advisors.

Q Okay. I want to refer you to Table 1, which is in the center of page one of this report. Would it be correct to say that Table 1 shows the estimated -- estimate of the overnight and total project costs for Summer and the Vogtle project?

A Yes. That's the intent of this table.

Q Okay. And you see under the commercial operation date there's a Footnote 1 by the entry for the Vogtle project. Do you see that?

A I see it.

Q Would it be correct to say that the Footnote 1 on the Vogtle entry states that that number for the overnight cost in the project -- total project cost shows that it did not reflect the recently announced schedule delays?

A That's correct.

Q Okay. I want to take you to page 2 of the Concentric report. Looking at the second full paragraph under the subtitle Vogtle, towards the bottom of that paragraph, were you aware that the Vogtle -- or that the Concentric report did -- also does not include the

ongoing litigation cost plus the schedule delays which might materially affect the overnight cost?

A Yes.

Q Were you aware that the project construction schedules for V.C. Summer and Vogtle have almost doubled?

A Sorry. Could you clarify the schedules have doubled?

Q Well, let me just ask specifically about the Vogtle project. Were you aware that there was a 39-month delay on a 34-month construction schedule for Vogtle?

A I'm aware that there's been delays with the Vogtle project, yes.

Q Okay. Let me refer you back to that second full paragraph on the Concentric report under Vogtle. Were you also aware that in response to new NRC regulations, the consortium has made a number of required changes to the original design that were the basis for the 2008 contract with Georgia Power?

A Yes, I am aware of that.

Q Okay. Now let me flip to the Summer entry of the Concentric report. Were you aware in the Concentric report that the cost used in the -- in the Concentric report had not been updated in the last two years?

A I'm aware that there was adjustments to that effect, yes.

Q Okay. And is it correct that FPL did not make any changes to the nonbinding cost estimates for Turkey Point Units 6 and 7 based on the delays recorded for the Summer and Vogtle projects?

A That's correct. There would be no linkage directly to delays in first-of-a-kind projects to the potential construction schedule for Turkey Point 6 and 7.

Q Let me refer you to page 31 of your May 1st testimony, and let me know when you get there. And specifically I'm referring to lines 14 through 16. Isn't it correct that you state that "Once the project is closer to obtaining approvals, FPL will be able to refine the economic assumptions and incorporate the experience of the other new nuclear projects as well as how state and federal energy policies have evolved"?

A Yes. In fact, in our 2014 project cost and schedule review we worked with Chicago Bridge & Iron, who is the constructor on both the Summer and Vogtle projects. They helped us review our project schedule that includes preconstruction as well as construction phases. And they were instrumental in folding in a number of those lessons learned from the first-of-a-kind

projects into the current 2014 project schedule we have.

Q Thank you, Mr. Scroggs.

Would you agree that it would be important to incorporate the experience of the Vogtle and Summer projects, including the total costs incurred by the contractor but not charged to the owners, in checking the reasonableness of your cost estimates for Turkey Point Units 6 and 7?

A No.

Q Let me refer you back to the Concentric report. The last page or last paragraph on page 2 of the Concentric report discusses production tax credits for Vogtle; is that correct?

A Say -- page 2?

Q Page 2, last paragraph on page 2 for the Vogtle plant.

A Okay. Yes, I'm there.

Q It talks about production tax credits for Vogtle; correct?

A Correct.

Q And I just want to make sure, you would agree that Turkey Point Units 6 and 7 will not have these tax credits unless these PTCs are authorized by Congress?

A FPL has not applied for consideration for production tax credits for Turkey Point 6 and 7.

Q Okay. But that's not quite what my question was. Will those tax credits be available even if FPL were to apply for them without reauthorization by Congress?

A This, this paragraph talks about production tax credits that were offered in the 2006 time frame. And in my understanding, in order for production tax credits or another loan guarantee to be available to Turkey Point 6 and 7, there would have to be a new solicitation.

Q Okay. Did you, in making your comparison check with Vogtle, did you factor in the expiration of those tax credits?

A Our comparison -- no. Our comparison check with Vogtle is about -- is to look at the estimated costs. Our total project feasibility analysis looks at the economic viability and feasibility of the Turkey Point 6 and 7 project in the FPL system within the time frame it's expected to be available.

Q Okay. So the -- let me turn your attention to the third paragraph on page -- page 2 of this report. In this report, he -- they talk about using the Georgia Commission consultant as a source of information. To your knowledge, who is the consultant for the Georgia Power -- or the Georgia Public Service Commission on the

Vogtle project?

A I would suggest you ask Mr. Reed if you want to know specifically. I do know --

Q Do you know?

A -- Witness Jacobs is in that role for the office of -- I mean, for the Public Service Commission of Georgia.

Q Okay. I'm going to refer you to page 3 of your May 1st testimony, lines 13 through 15. In that you testified that the AP1000 construction progress provides positive indicators for the long-term feasibility of new nuclear plant development; is that correct?

A That's correct.

Q Okay. Do you recall taking a deposition regarding your May 1st testimony?

A Yes, I do.

Q Okay. In your deposition, you stated that the capital cost estimates in your testimony are based on a Bellefonte study for the power island and for physical generation equipment; is that correct?

A Could you state that again, please? I'm sorry.

Q Do you recall in your deposition stating that the capital cost estimates that you used for your

testimony were based on a Bellefonte study for the power island and/or physical generation equipment for that plant, for that study?

A I'm not sure that's exactly correct. If you care, I will expand on that.

The -- the analysis that was presented in the 2008 need determination used, as a component of the cost estimate range, a study done for the TVA Bellefonte project. This was an industry leading study as the next phase of nuclear generation was being constructed. And that portion of that study was married with Turkey Point-specific builders' costs, meaning roadways, civil work, transmission, those costs that are specific to the Turkey Point 6 and 7 project.

Q Okay. So that was -- made up a portion or the basis of that cost -- of the original cost estimate; correct?

A Correct. And that cost estimate provided a range.

Q And that study for the Bellefonte site was published in 2005?

A That's correct.

Q And in your response to interrogatory 14, it states the study used a GE boiling water reactor; is that correct?

A That's correct.

Q And you would agree that there's been a lot of changes in the Bellefonte project since the 2005 study was completed?

A That's correct, but not directly relevant in the manner that we use that information. That was the best information available at the time. It provided a good starting point and provided -- with the estimates that we used for how that might differ. And placed on the Turkey Point 6 and 7 site, that allowed us to provide a cost estimate range.

MS. CHRISTENSEN: Commissioner, I think we're starting to go a little bit more far afield than --

CHAIRMAN GRAHAM: If you'll just answer the question and just be as brief as you can to the information.

THE WITNESS: Yes, sir.

CHAIRMAN GRAHAM: Thank you.

BY MS. CHRISTENSEN:

Q Are you aware that the Bellefonte project was changed from the GE boiling water reactor to an AP1000 and then effectively canceled?

A Yes.

Q Okay. Now we talked a little bit earlier, you brought up a little bit earlier that you did an estimate

check against the Westinghouse price book in 2010; correct?

A That's correct.

Q And the vintage of that Westinghouse price book information that was used was 2009; is that correct?

A That's right.

Q You would agree that FPL is going to seek to recover all costs it believes are necessary and prudently incurred to build Turkey Point Units 6 and 7.

A That's correct.

Q And at this point FPL has not decided the type of engineering procurement and construction contracts it will try to negotiate; correct?

A That's correct. We're learning from the first wave of new nuclear plants to understand what's in the best interest of our customers.

Q In your deposition you said that you did not expect to get a fixed price contract from whoever FPL contracted with to build Turkey Point Units 6 and 7; correct?

A That's correct.

Q And you indicated that if FPL were to pursue a fixed price contract, you would expect that the bidder would include a significant amount of margin and

coverage for themselves; correct?

A I believe that was correct, especially if we were to do that at this point in the total -- this point in the project.

Q And you also said in your deposition that you didn't believe it was reasonable that a firm price contract could ever be negotiated that would allow the project to move forward; is that correct?

A That's correct. My understanding of a firm price contract.

Q Okay. At this point, FPL has only built in a 15 percent contingency into its nonbinding estimates; correct?

A That's not correct.

Q Can you tell me what is the contingency that FPL has built into its nonbinding estimate?

A The cost estimate range again is a range built with a number of different assumptions between the low end of the range and the high end of the range. Those assumptions represent additional contingency.

If you look at the Concentric report, you'll see that Turkey Point's cost estimate on a capital overnight cost estimate basis is about 16 percent above or $757 per kW above where the Vogtle project is right now. So that high end of the range constitutes about

$1.7 billion worth of margin in comparison to where the Vogtle project is today.

Q Okay. I'm just trying to understand. How much contingency was built in when you were creating these nonbinding estimates?

A There was no specific contingency percentage applied as the different scenarios were built out. They were individual assumptions of what might change in transmission costs, what might change in owner's costs, what might change in the power island cost. So to understand and specifically look at that, you have to understand the concept of the cost estimate range. It wasn't a single dollar value with a percentage added for -- to capture all the contingency.

Q Do you know what the percentage difference is between the low end and the high end of the nonbinding estimate range?

A I don't have that value.

MS. CHRISTENSEN: Okay. I have no further questions.

CHAIRMAN GRAHAM: Thank you.

Retail Federation.

MR. LAVIA: No questions, Mr. Chairman.

CHAIRMAN GRAHAM: FIPUG.

MR. MOYLE: We do have some questions.

EXAMINATION

BY MR. MOYLE:

Q Good afternoon.

A Good afternoon, sir.

Q Let me -- let me just pick up on the contingency point. Did I understand that there's no contingency percentage number built into the low end and high end? Is that right?

A No, that's not correct.

Q Okay. So what is the number? Was it a 10 percent contingency, a 15 percent contingency? Can you give me the number of the contingency that you built in?

A I can't give you a simple number other than to explain the cost estimate range is built out of probably 25 different line items. Each of those line items were looked at individually to understand how they could change. So that helps develop the range.

Each individual scenario was given 15 percent contingency. But the entire contingency that exists in FPL's cost estimate range is built by a more deliberate review of individual line items and understanding what potential range could occur in those individual line items. So that bounding estimate has served the customers very well to -- throughout eight years of

feasibility analysis without change to still provide a very realistic view of what the high end cost estimate in comparison to a breakeven cost estimate for a combined cycle would still provide value for our customers.

Q Have you ever reviewed an EPC contract for a nuclear project?

A I have.

Q Tell me which ones.

A I've looked at terms that we have been -- had negotiated with Westinghouse.

Q No. But -- okay. So was it for a particular project? Was it for, like, Vogtle?

A It's for this project.

Q For this project?

A Yes, sir.

Q Okay. And -- and was that a final contract or just a draft?

A No, sir. It was a draft.

Q Okay. Did it have a contingency provision in it that said that there will be a contingency in this EPC contract?

A That would be simplistic. It's not an accurate representation of how these contracts are handled.

Q So that's probably a yes/no. I mean --

A No.

Q -- because they're not going to go forward on a contract with no contingency, are they?

A Would you restate your question, please?

Q Sure. I would be very surprised, given all the moving parts in a nuclear project, that Westinghouse would say, you know, we'll do this contract but put no contingencies in it. They're not suggesting they'll enter into a contract with no contingencies, are they?

A I'm making no such suggestion.

Q And when you reviewed it, you don't recall there being a contingency contractual provision that said there'll be an X or a Y percent contingency, or it's just more complicated than putting in a simple number like that?

A Correct. It's much more complicated than a simple number like that.

Q Okay. So let me -- let me circle back and just ask a couple of questions. I mean, you're -- you're sort of the guy in charge of this Turkey Point 6 and 7 project; right?

A I'm the project developer. Yes, sir.

Q And -- but there's nobody that has more responsibility for getting this project done on time and

on budget than you within FPL's organization; is that fair?

A That's correct at this stage.

Q Okay. And you testified in the original need determination proceeding?

A I did.

Q Okay. And do you know what the cost you testified to, the all-in range of costs that this Turkey Point 6 and 7 would be when you testified in the original need determination hearing?

A I'd be required -- subject to check, I believe it was on the order of 12 to $17.8 billion.

Q Twelve to 17?

A Yes, sir.

Q Billion; right?

A Total project cost. Yes, sir.

Q Okay. I have a copy of that order, if it -- if it -- if it helps you, but I think we're -- I think we're good.

Just explain this for me, if you would, how you do the calculation when you come up with, you know, the dollars per kW. You know, a lot of times you'll express cost in dollars per kW, but then you also come up with a range of X billion between Y billion. How do you convert the dollars per kW to -- to a range?

A Okay. The capital cost estimate, again, is an overnight cost estimate. You take that to represent the total capital influence in the project. However, that -- in reality, that's experienced over many years. And as that is spread out over what we call the spend curve, that spend curve -- as that capital is spent, there's interest during construction, there's escalation that has an effect on the price spent in future years. So you need to take that capital cost estimate and spread that over the expected schedule of the project, and the sum of those capital expenditures in each year with interest during construction represents the total project cost, which would be in dollars.

Q Is there a mathematical formula you use to do that -- that calculation?

A There is a significant amount of math involved.

Q Right. Do you do it? Are you the person that does it?

A Mr. Sim, Witness Sim is the individual that does the detailed analysis there.

Q Okay. So in my opening statement, I reported, I think accurately, to the Commission that the last year the range of cost for Turkey Point 6 and 7 was between 12.6 billion and 18.4 billion. Was that -- is that

right?

A That's correct for 2014.

Q And then this year the costs are 13.7 billion to 20 billion; is that right?

A That's correct. And that is completely related to the five years of additional schedule. It's not a change in the capital cost. It's a change in the schedule-related costs or time-related costs.

Q And so my math was right, the spread is 1.1 billion to 1.6 billion increase, is that right --

A Subject to check.

Q -- from the two years?

A Subject to check.

Q And you just answered the question, you said, well, there's no real increase in capital costs. It's just time that's making it, making it go up; is that right?

A That's correct.

Q And why -- why does time make the price go up this way? Are you assuming that the costs will go up, there'll be an escalation factor of costs for equipment?

A In two forms. We assume a 2.5 percent escalation to capital costs over time. We've assumed that 2.5 percent from the very beginning of the project. So to be consistent, we continue to assume that.

When you take -- when you add five years to the project and shift the spend curve to the right, that spend curve is exposed to increased escalation in those out years.

Q And part of that's the carry cost, is that right, a carrying cost?

A Well, the time-related costs are both interest during construction and escalation.

Q Okay.

A The majority --

Q And you just told me -- hold on. Let me -- if I can just make sure.

A Let me --

Q The 2.5, you assume escalation of capital costs of 2.5 percent; right?

A Per annum.

Q Okay. And so I don't need to know anymore about that. But I want to talk about the carrying cost of construction, so explain that a little bit.

A The Nuclear Cost Recovery Clause allows for the recovery, contemporaneous recovery of interest during construction for the capital balance as that proceeds through construction. This saves about $12 billion for our customers over the course of the total project cost. So it's a -- it's a vehicle within

the cost recovery clause that allows for not having to compound interest over time but pay that interest off each year.

Q Okay. And that's the current rate on that?

A It would be subject to check to others, but I think it's about 9.6.

Q 9.6 percent? And you said, oh, the ratepayers are going to save 12 billion in interest, but that's only if you all complete the project; correct?

A That 12 billion is a calculation of the difference of constructing and finishing this project under the Nuclear Cost Recovery Clause or in comparison to not having the Nuclear Cost Recovery Clause in place.

Q Okay. So let's talk about that for a minute. I assume the answer to the question was yes, right, that the savings are only realized if the plant is built and -- and you start generating electricity from it; right?

A Correct.

Q Because you are familiar with what happened in Duke. I mean, Duke was going forward, they didn't get it done. All the costs the ratepayers paid Duke kept. Ratepayers got nothing and paid money; right?

A I'll leave that to your characterization.

Q All right. Well, did I say anything that you

disagree with?

A I don't -- I don't think that's resolved yet, so.

Q Okay. If FPL tomorrow says, you know what, we're done with this, you know, all these Intervenors, and they're going -- this cost is going up, forget about it, how much have you spent to date? 254 million in capital costs?

A We've spent 220 million under the Nuclear Cost Recovery Clause through the end of 2014, and we're estimating by the end of 2015 about 247 million.

Q Okay. So if you -- if you -- if you threw in the proverbial towel on the -- on the Turkey Point 6 and 7, would ratepayers get any money back?

A The Nuclear Cost Recovery Clause leaves that to the disposition of the Commission.

Q Do you have an understanding of what the -- of what the statute says or what the clause says?

A I have an understanding that FPL each year participates in this clause to make sure that our costs are reasonable and that costs that have actually been incurred are prudent. And by doing so, we're transparently operating where the Commission can say yes or no, that they agree with our characterization of the cost.

Q So my question was to -- to ask you whether you had an understanding if you don't complete the project, whether -- whether ratepayers get any credit or refund on costs. And are you not able to answer me yes or no on that?

A Yes.

Q What's your understanding? Do they get any money back?

A If we're -- if we've prudently incurred costs, we do -- the money is paying for the work that was prudently done.

Q And if you prudently incur it, then ratepayers get no money back.

A The ratepayers have, in the investment that they've made, particularly if we receive the COL, that COL retains value and it can be acted on for up to 20 years. So I -- I don't accept your characterization of a flat yes or no.

Q So the money they would get back would be whatever you could get for the COL license?

A Or exercising that COL at a later point in time.

Q You were here for the remarks of the state representative out of Miami?

A I was.

Q Okay. He made a point, as I understood it, and the Chairman clarified it, he said this project doesn't make a lot of sense if you're only going to build it one foot above sea level. Are you projecting right now to build the project one foot above sea level?

A No.

Q Do you have -- how many feet above sea level are you going to build it?

A Approximately 26.

Q Is it going to be on pilings? Are you going to bring in that much dirt and it'll be 26 feet above with -- with dirt?

A The engineering -- the engineering design calls for fill to raise the nuclear island to a level of about 26 feet. That's been a part of the review, technical review in the NRC. And in the state Power Plant Siting Act review, that was found by the administrative law judge to be sufficient in consideration of future sea level rise.

Q The -- so we talked about the increased cost, and then there's also an increase in the in-service date. When you originally appeared in front of this Commission back with a need determination, when did you testify to the Commission that Turkey Point 6 and 7 would be in commercial service?

A At that point in time, 2018 and 2020 was the earliest practicable schedule.

Q And what was the schedule last year? What did you tell them last year when the projected in-service date would be?

A At that point in time the schedule was for COD dates in 2022 and 2023.

Q Okay. And so what are you telling them today?

A 2027 and 2028.

Q So give or take, since you first appeared here and testified on the in-service date, nine, ten years is now -- I mean, there's a -- there's been a delay of nine or ten years with respect to the projected in-service date for Turkey Point 6 and 7; correct?

A Correct.

Q Okay. And are ratepayers continuing to pay this interest, this 9.6 interest on -- on things you've spent for the -- for the project to date? I mean, will they continue to pay?

A No, sir. I think that -- that provides a misrepresentation of the cost recovery process. The annual cost recovery process asks us to project what we're incurring in the next year, and then we concurrently receive monies from that. There's no interest of building on a capital account.

Q I may have misunderstood. Your 9.6 is what you -- what you get on construction work in progress?

A Again, I apologize for not being the expert witness on that, but that's approximately for interest during construction. Yes, sir.

Q Okay. Now Mr. Reed -- you know Mr. Reed; right?

A You're talking about John Reed?

Q You know Mr. Reed? Yeah.

A Yes, sir.

Q Do y'all -- he testifies in these proceedings. We get to see him about every summer. He's an expert with Concentric; is that right?

A Concentric Energy Advisors.

Q Okay. And then do you hire him to do more than -- than provide testimony in this proceeding?

A I do not. I believe the company hires him for other aspects, other jobs.

Q So -- so do you consult with him about -- about the project and how it's going and, you know, what the costs are? And he used some terms in his testimony, I think he called them off, off-ramps and holds. I'm just wondering your relationship with Mr. Reed, you know, whether you guys actively talk and actively discuss, or whether, no, he's more siloed and kind of

focused on this proceeding and you don't interact with him much. Can you explain?

A Yes. Mr. Reed and his consultants conduct an in-depth review of our project annually in support of his testimony in this docket, and we exchange a lot of information at their request to help them understand what's changed in the project, what's the company's managerial decision thought process under certain circumstances.

Q Have you ever asked him, "Do you think this project makes sense? Do you think we should spend all this money and still move forward?"

A Yes.

Q He uses a term off-ramp in some of his testimony. Do you have an understanding of what that is, what it references; and if so, could you please explain?

A Yes. In fact, I think my testimony does a good job of explaining how we've approached this as a step-wise project, and that step-wise approach gives us the opportunity to take off-ramps, meaning pursue certain things at a faster pace or the slower pace based on what's available. When we see -- in prior years we had seen the NCRC amendment occur and wanted to make sure that we incorporated that in our schedule. We'd

seen lessons learned coming out of construction. We'd seen changes to the NRC funding and their priorities. We telegraphed, I believe, all those that could impact the schedule, and in doing so, we pushed off a number of preconstruction activities that we had planned. That's on off-ramp. By -- by not spending that money, we preserve the progress of the project and limit the exposure for customers.

Q Is a hold something similar?

A A hold would be a similar approach.

Q Okay. And -- and when you have an unexpected development that crops up, you know, the NRC says this or the legislature says that, when you make use of one of these off-ramps, do you also use that time to take a wholistic look at the project and say does this still make sense? I mean, are we still doing right by our company and ratepayers, or should we maybe consider not moving forward? Do you do that when you hit an off-ramp or a hold?

A Yes. At many points during the year we'll be faced with new information, and we ask ourselves is this material to either the cost estimate, is it material to Witness Sim's feasibility analysis, is there any reason that we should -- should consider that we've gone into a different territory? And if that's the case, we take a

hard look at that.

Q I read your testimony, and largely in a way consistent with what you've just told me now where you all, you call it a step-wise approach, but you're incrementally making decisions about moving forward with Turkey Point 6 and 7; correct?

A Yes, with the participation of the Commission.

Q And I was reading about your -- your saying, well, we're going to move forward with preconstruction, but it didn't sound like before you had a process where you were going to decide thumbs up, thumbs down should we move forward with preconstruction. Have you already made a decision that you're moving forward with preconstruction?

A No. We've made a decision that based on the schedule, a time for that decision would be in the 2016 docket, and that's why we're preparing to give the Commission the best decision basis to make that decision in 2016.

Q Okay. Well, I'll -- maybe we can get into a little bit of your testimony and point it out, because I was reading it like we're going forward, which didn't seem consistent to me with your off-ramp/hold position. So I'm glad to hear that, that you periodically reconsider these things.

Let me move into some of your -- some of your testimony. And we can go through and I can point you to stuff if we want to, but it might be a little quicker if I just ask you some questions, and if you feel a need to reference the testimony, we can. But I think to try to move it along, I'll just tell you here's something in your testimony and ask you a question. Is that fair?

A Let's try it.

Q Okay. So you -- you talk about some -- some benefits of nuclear for the ratepayers. And I understand there's cost -- cost-benefit analysis. What are some detriments associated with -- with the Turkey Point 6 and 7 project? I mean, it's not all benefits; right?

A Well, again, we look at --

Q If you could just -- you agree there's not all -- not all benefits; correct?

A Correct.

Q Okay.

A The feasibility analysis looks at positive and negative aspects. One of the characteristics of a nuclear plant is it's very capital intensive. One of the -- so that's a negative. One of the benefits is its very low operating cost, zero emissions.

Q Yeah. I just want to focus -- your testimony does a good job of saying benefits. I want to focus on negatives. So high capital cost. What else? Spent nuclear fuel waste?

A Again, that's a relative -- I wouldn't consider that negative. It's -- we've got a very well-understood and controlled process for managing that. And in comparison to carbon emissions and particulate matter emissions and other emissions from fossil fuels, I think it's a relative difference.

Q So -- so is it easy to get rid of spent nuclear -- nuclear fuel?

A It's easier to get rid of than carbon that's been emitted. Yes, sir.

Q Does somebody come and pick it up and take it somewhere or --

A There's NRC-approved processes for managing and storing that waste onsite, and many activities for determining the ultimate location of that.

Q So what's your plan for Turkey Point 6 and 7 with the -- with the nuclear waste? What are you going to do with it?

A As we have done at St. Lucie and as we have done at Turkey Point, the existing 3 and 4, we have interim storage facilities that -- a very small

footprint. 100 percent of the nuclear fuel that has been used onsite for over 40 years is contained in about the size of a football field.

Q So you're going to keep it -- keep it at Turkey Point is the plan?

A Until the federal government takes ownership of it, as they're required to do.

Q Yeah. And that conversation about the federal government taking ownership has been going on how many years? Decades.

A Many.

Q Huh?

A Many.

Q Decades; right?

A Many years.

Q Is -- are you going to be able to get permits to put nuclear waste at Turkey Point with the Everglades being right there and the, you know, the Keys, the Florida Keys being right there? Those don't present issues for having -- having an effect, a nuclear waste disposal site on -- onsite at Turkey Point?

A Again, the NRC has very strict procedures. FPL has followed those procedures. I do not have any reason to believe that we wouldn't be able to continue to safely manage fused fuel at Turkey Point or wherever

the federal government directs us to.

Q Does the State have any requirements about the disposal of nuclear fuel that you have to comply with that you're aware of?

A Certainly the State has environmental requirements that are related, but the nuclear fuel storage itself is deferred to the Nuclear Regulatory Commission.

Q So that would be a no?

A Correct.

Q All right. Any other -- any other detriments you want to talk about?

A No, sir.

Q Catastrophic risk? Would you -- we could agree that that's a risk of nuclear projects that are present. That's a potential downside; correct?

A It's a risk of many -- yes, it's a risk of many projects, including airports, marine ports. Other -- other industrial facilities carry similar risk.

Q But when you have something go wrong at a nuclear plant, you would agree that the results are a lot worse than if you have something go wrong at a gas-fired plant typically; correct? Fukushima, Three Mile Island.

A Not necessarily, particularly in the port

explosion in Tianjin, China, recently. Obviously that was traditional chemical storage related. So, again, there are risks in many industrial activities. The Nuclear Regulatory Commission -- the U.S. industry has a very strong, positive record for safety.

Q Yeah. I -- I just wanted you to focus on the relative risk of a nuclear catastrophic -- catastrophic event compared to a combined cycle gas plant. You would agree there's more catastrophic risk with a nuclear plant than a gas plant; correct?

MS. CANO: I'm going to object to continued questioning along these lines. It sounds like these either would have been appropriate for the need determination proceeding or the SCA proceeding or perhaps even the NRC's proceeding. None of these topics are addressed in his prefiled testimony, which focuses on costs 2014 through 2016 and what we're doing right now on the project.

MR. MOYLE: I'm about -- I'm about done. But he goes through the benefits without putting in the detriments, and I think it's fair to point out, hey, there's a little bit of downside to these things.

CHAIRMAN GRAHAM: I understand, but I think you're kind of beating this dead horse. Let's move on.

BY MR. MOYLE:

Q You would agree that the nuclear regulatory process is more complex to get a nuclear plant sited than a gas plant; correct?

A That's correct.

Q All right. Let me ask you, and I'll reference your testimony on this, page 8.

A May testimony?

Q Yeah. It's the March, your March 2nd testimony.

A Okay.

Q Tell me when you're there.

A I'm there.

Q Let me -- let me tell you my understanding of your testimony. You tell me if I got it right or if I got it wrong. Okay? And it relates to this breakeven cost estimate to determine nuclear project costs.

Let's say that the number right now for a nuclear project was $1,000, okay, that was, that was your number. And if you do all your analysis and the breakeven number is 1,100 or 1,200, it's above $1,000, that tells me that's -- that's bad. Do I have that right?

A I'm struggling a bit to follow your -- your discussion, but -- if you could rephrase.

Q Explain -- explain -- explain the breakeven cost analysis and what it compares to when you use breakeven. What are you comparing the breakeven against?

A Well, okay. Let me explain the breakeven cost. The breakeven cost allows us to look at an alternative combined cycle plant, its capital costs and its operating costs throughout its life, and then we kind of subtract the operating costs of a nuclear plant to come back to the breakeven capital costs that a nuclear plant could sustain and be equivalent to a combined cycle plant. Do you follow?

Q Sort of.

A Okay.

Q In this -- in this scenario, you came up -- you said essentially half the time your economic analysis were -- were positive and the other half of the time they were negative; is that right?

A I don't believe that's an accurate statement.

Q Why is it wrong?

A If I could look at my testimony.

Q Sure. And tell me where you are.

A Are we talking about the 2014 analysis or the 2015 analysis?

Q What's your most recent?

A 2015.

Q Well, let's talk about that, and then tell us where you are.

A Okay. It begins on page 25.

Q And this is in your -- your March --

A May testimony. May testimony.

So in answer to your question, a breakeven -- I think I understand now where you were headed. A breakeven cost of 1,100 and a cost estimate of 1,000 would say that would be a good thing, would be that cost estimate could be supported.

Q And just tell me one more time why that is.

A Again, because --

Q Because I think -- I was thinking 1,100 is more than 1,000, that's more money. But I'm not looking at it --

A It's a breakeven cost estimate. So you could spend up to the breakeven amount and be economically equitable with a combined cycle plant of the same capacity. That's why it's termed a breakeven.

Q All right. Let's move on.

I'll stick with trying not to refer you to the testimony, but there are some changes to the nuclear cost recovery statute; right?

A As of 2013, yes, sir.

Q Okay. And -- and you got a document up here. It's a big blue chart. That's part of your testimony; is that right? That's this exhibit?

A That's correct.

Q And if I understand it, you're saying that there's a five-year delay on that chart; is that right? And we can move the one and you can look at it.

A Right. The total delay is comprised of two different components. Two and a half years was the result of the net effect of the NRC schedule moving out in time, and another two and a half years was the result of imposing the new 2013 amended NCRC onto the process and the steps that we have to take to comply with that.

Q So I followed the state legislature amendments pretty closely. I was not aware of any language where they said, hey, this statute, these amendments that we're going to put in place is going to delay this project for two and a half years. You had a different understanding of the -- of the legislation?

A I have a practical understanding of how to apply it in the project schedule that we have to execute. So the result, the impact of the additional staggered steps means that in our prior schedules we had some overlapping preconstruction and construction activities. We no longer can have any overlap of that

preconstruction and construction.

Q Your counsel, in opening statements, said, look, this -- this nuclear cost recovery statute is not about what we can and can't do. It's about what we can recover. You heard her say that in effect, didn't you?

A I wouldn't -- that's not how I understood it.

Q Do you -- do you believe that this nuclear cost recovery statute relates to your ability to have what they call the -- the Representative called advanced cost recovery?

A Again, my understanding is that we're recovering concurrent to the expenditures, and those expenditures are being reviewed on an annual basis.

Q And that's a business decision that you've made; correct?

A It's a compliance with an existing statute.

Q You're saying the statute says -- it governs you so tightly, it tells you when you can spend money, and it doesn't relate to when you can recover for the money?

A Again, that's the advice I've been given by counsel. That's the review of this company.

Q I was reading this as saying you can still move forward and do whatever you think is best, but you can't get advanced recovery, and you have to put some

skin in the game if you want to move forward on a parallel track. You think I don't have it right?

A Correct, I do not.

Q So -- so the state legislature is enacting that statute. It results in a two-and-a-half-year delay, and then the other two-and-a-half-year delay is caused by the NRC; is that right?

A That's correct.

Q And -- and the NRC, I mean, they got Vogtle licensed timely, didn't they?

A I'm sorry, sir?

Q Didn't -- didn't the NRC get Vogtle licensed pretty timely?

A They did.

Q And the same with Summer?

A They did.

Q But in -- but in your case, they sent you a revised schedule, and it's going to cost you two and a half years?

A Correct. And the difference has been two federal government shutdowns in that period, Fukushima events that required a significant amount of seismic review and drained a number of resources from the NRC. So they had a number of resource challenges and reprioritizations that put our project as not first on

their list.

Q And the result of this, I think you said, is additional cost to the ratepayers of 1.1 to 1.6 billion; is that right?

A That's the net effect, yes, sir.

Q Have you made any effort to try to split out -- I guess both of them are two and half years. They would just say the legislature gets credit for half of that and the NRC gets credit for half of it?

A That's not how I would characterize it.

Q Huh?

A No, that is not how I would characterize it.

Q I've looked through a lot of your stuff. There's this owners' group, right, of people that are owners of the AP1000; is that right?

A That's correct.

Q And I think last year or the year before you paid 1.7 million to be in that group. Does that -- does that sound right?

A That's correct.

Q And they've increased the dues to 3 million now; is that right?

A They've increased by 3 million, yes, sir.

Q Why did -- why did they do that?

A Each year the organization looks at different

initiatives that they're undertaking, and they vote to fund those as a group. So FPL's portion of that is a fraction of what it would be if FPL undertook it on its own. So, again, each year they make a different decision of what needs to be done and what's the cost of doing those activities.

Q So what was the big decision that basically resulted in almost a doubling of your contribution to the group?

A Again, as the first-wave units come closer to operation, there's a significant amount of focus with respect to operator training and procedures and the activities necessary to make sure that we maintain those NRC standards with these new units.

Q This didn't have anything to do with a number of companies dropping out of the owners' group because they're not moving forward with nuclear projects?

A No.

Q Could that -- could that have been part of it? Do you know?

A No. That is not part of it between 2014 and 2015.

Q Is Duke in the group?

A I do not know if they're still in the group.

Q What was the sole -- sole source contract that

was over 500,000 that you let this past year?

A Could you point to -- to my testimony or table?

Q Twenty -- I got it on page 22, line 17.

A Again, of May?

Q Your -- yeah, your first group.

A So that would be March.

Q Yeah, March. You're talking about going out for bid, what steps were taken to ensure project expenditures were properly authorized. To be clear, I think Mr. Reed, as part of his testimony, says he looked at it and there were three contracts for over 500. Two were competitively bid, one was sole sourced. Does that ring a bell?

A I would have to look at the specific submittals that reflect those contracts. I can tell you in general that this portion of my -- of my testimony talks about how we handle those in general, our preference for bidding, and how we go about obtaining those bids and making those decisions.

Q So you don't have information about -- about a sole source?

A Again, if you could -- if you could point me to a specific table in my testimony --

Q I don't -- I mean, I --

A -- I'd be happy to talk about it.

Q I'm looking -- do you have something in front of you, do you think? I mean, you're the one in charge of the contracts; right?

MS. CANO: Objection. Argumentative. And there are a number of contracts on the project. If Mr. Moyle would like to point him to something, I'm sure the witness would be happy to answer.

BY MR. MOYLE:

Q Do you have anything in front of you, sir, that shows how many contracts you executed last year for over $500,000?

A I don't have that NFR in front of me, no.

Q Anything related to any contracts you executed for over $50,000?

A Again, I don't have those detailed NFRs in front of me, no.

Q So with respect to the question about sole sourcing contracts, you don't have -- you're not able to answer that question without looking at some documents?

A I can tell you in general that when we sole source a contract, it's related to a very strict set of reasoning. It could have been Westinghouse, who has proprietary information related to the AP1000 design, and we would have no option but to choose Westinghouse.

That's -- that would be a sole source provider for very specific information.

Q Okay. And that -- that's a hypothetical.

Let me ask you this, how long have you been employed by FPL?

A Thirteen years.

Q Do you have familiarity with their policies and procedures related to monitoring projects and watching projects?

A They're very much a part of what we do, and a part of my testimony for both March and May.

Q And you provide some testimony about review and -- and people looking -- looking over your shoulder at the Turkey Point 6 and 7 projects; correct?

A That's correct.

Q All right. And I didn't see anything in your testimony about having independent accounting audits done by your -- your CPA. Deloitte, I think, is your CPA; is that right?

A I'm sure the company employs a number of CPA firms, but we do have an internal audit that conducts a review, we have a third party that conducts --

Q Mr. Reed conducts a review and you have an internal, but I'm specifically asking whether you have a third-party accountant looking at the numbers.

A Our internal controls department hires a third party to conduct a financial audit each year.

Q So was -- was a financial audit conducted this past year?

A Yes, sir, it was.

Q And who -- who conducted it? Do you know?

A I don't have the name of that organization.

Q Did you put anything in your testimony about a third party conducting a financial accounting audit? I didn't see it.

A If you'll give me a chance, I think there is a section --

Q Sure. Take your time.

A -- in my May testimony that talks about internal audits or audits in general.

Q Yeah. And, again, I'm not focusing on internal. I'm asking about external CPA types -- Deloitte, who used to be Price Waterhouse.

A Let me just explain. The financial audit that was done was conducted by a third party at the request of FPL's internal controls business unit. So I don't know if that satisfies your interpretation of a third party.

Q It may. Just show me where you talk about it or reference it.

A Again, I don't -- I don't talk about it in specifics. I don't provide the name of the auditor. I describe in general it has been our process each year to have such a financial audit done. It's provided for the review of the Public Service Commission auditors and others that would care to look at it.

Q Did you review that audit?

A I did, and there were no findings.

Q Did you give it to staff and OPC in discovery?

A It was available. I imagine if they were interested in it, they had to ask for it.

Q The PSC staff looked at when they went down, do you think?

A Again, subject to check, I would assume that they had access to it.

Q Let me flip you -- this is into your May testimony. I got it on page 3, line 17. Tell me when you're there.

A I'm there.

Q So I read this as essentially saying there's two big things you got in '15 and '16, an appeal of the site certification order and the final stages of the Nuclear Regulatory Commission's combined license application process; right?

A That's correct.

Q Can you just tell me ballpark how much has been budgeted for defending the appeal of the site certification final order?

A It's relative to the annual budget. It's on the order of 1 to 2 million.

Q And then same question with respect to the Nuclear Regulatory Commission licensing application review process.

A Essentially the balance of the requested amounts.

Q So what is that?

A Again, in -- in this year we're asking approximately $21 million, so that would be $18, $19 million related to nuclear licensing, and approximately the same in 2016.

Q Okay. And these monies aren't going to outside third parties. I mean, some of them are, but a lot of it is paying FPL employees to work on this project; correct?

A Not -- proportionally the largest amount is going to NRC funds, fees that we pay to the NRC for the processing of our permits, as well as outside contractors who support us in the licensing effort and FPL employees.

Q So -- so the NRC charges a tax or a fee for

processing the application?

A They certainly do.

Q Okay. Flip to the next page. You're talking again about some benefits of the nuclear project. And you -- down on page 22 you talk about saving -- actually line 21, about saving 29 million barrels of oil. How much -- how much power does FPL presently get from oil?

A I believe something less than 1 percent of our total generation is provided by oil.

Q So a comparison to oil, I mean, it's informative, but it doesn't really represent much with respect to your generating fleet; correct?

A Again, it's an estimate and a comparison that we've provided in the past, and we're consistently providing that information.

Q Yeah. And your natural gas is, what, 65 percent or so of your -- of your generation?

A I believe it's a little north of that, but that's close.

Q All right. A couple more things. Page 7, line 9, you state, quote, deregulation of natural gas as a fuel for electric generation and the introduction and continued improvement of large scale combined cycle gas turbine technology evolved to provide a cost-effective, efficient, and low emissions alternative.

How is deregulation of natural gas instrumental in that?

A I believe prior to the 1970s, natural gas was a home heating fuel or an industrial fuel, and it was not authorized for use in power generation.

Q By -- by this Commission?

A No. That was a federal regulation.

Q And is that what you meant by that statement?

A Yes, sir.

Q Okay. So on -- on page 7 you also talk about some developments in the NRC, and you said that they had a refined regulatory framework, and you thought that that would make for the application process to go smoother and reduce the opportunity for regulatory delays. Obviously that didn't happen in this case; correct?

A In FPL's case. We've experienced delays during the process. But as you pointed out, the experience at Vogtle and Summer was a rather expeditious approval of construction and combined operating license.

Q Page -- page 9, you use the term reasonableness and prudence a couple of times on line 5, line 7. Are those terms the same in your mind essentially, reasonableness and prudence?

A No.

Q Okay. So -- so what -- what's reasonableness mean and what's prudence mean to you?

A My understanding is prudence is a -- is a backward-looking analysis of what's been done. As practiced by the Commission, they make prudence judgments on actual costs that have been experienced in prior years. Reasonableness is something less than a prudence determination, but it's what can be made about costs that are either being incurred at the time or projected to be incurred.

Q So today you've heard a lot of people say, hey, these costs are too high. That would be a reasonableness determination for the Commission to look at and say 20 billion, that could be too high. That wouldn't be a prudence determination, it would be a reasonableness determination; is that right?

A No, that's not right.

Q Why is that wrong?

A As this is applied, as in the context of my testimony here, we're talking about the Commission's judgment on either costs incurred in past years, like 2014, which is a prudence determination, or costs being incurred in 2015, projected to be incurred in 2016, we're asking for a reasonableness determination.

Q All right. We talked a little bit about --

about these holds, and on page 11 you go into some detail on line 8 about the magnitude of -- of decisions that could materially affect cost or schedule. I assume that both the state nuclear statute amendments and the NRC delays were significant issues for you; correct?

A Absolutely.

Q Okay. And have there been other issues that this project has confronted besides the two we've talked about that fall into this order of magnitude where you've said, hold on, Houston, we may have a problem, we need to look at this?

A Yes. Maybe not your words, but certainly with the events at Fukushima had us take a considerable look at what occurred there, how the NRC responded to that, and how that might affect the regulatory review process that we are in.

Q Okay. And then is the next -- would it be fair for me to say or surmise that the next event of this magnitude might be when you get a pretty firm bid on an EPC contract that has things like you talked with Ms. Christensen about, a schedule and a scope of work?

A I would suggest that the next critical decision point is moving from the licensing phase to the preconstruction work, as -- as is now described in the --

Q And if you decide internally to make that decision, first of all, you have to decide internally, yes, let's do that or not; right?

A We -- we evaluate the situation and make our own determination as to whether or not that's the right course of action, and then we bring that before the Commission.

Q And you've -- you've been to Vogtle, both Vogtle and Summer; is that right?

A Yes, sir.

Q Okay. And -- and you have an understanding that those construction costs have gone up significantly compared to their original budgeted sums; correct?

A Their costs have increased, yes, sir.

Q All right. What is -- what are the constituents that are in your wastewater that are of concern to certain people that -- at least that contention has been found to be worthy of further litigation, I guess? Could you explain that, what the constituents in the wastewater are that are apparently problematic?

A Again, we're using reclaimed water from the water and sewer department in Miami-Dade County. That contains a number of waste products as -- as the sewer system puts that out. A couple were identified.

Toulene, for example, is a -- is a benzene-based solvent that was identified as potentially in the wastewater. It was not originally identified in our NRC application. We subsequently went back and looked at that and included estimates for the concentrations that we expect of that. So it was a -- it was a contention of omission.

Q Okay. And is that set for litigation? Where is that process? It's a federal process, isn't it?

A At this point in time the Atomic Safety Licensing Board, which is a division of the NRC that reviews all these contentions, is -- is still reviewing that contention and the briefings that have been provided to the ASLB from different parties on that. So that's pending.

Q So this is following up on that question I asked you about your -- have you made a go/no-go decision on -- on preconstruction. Look on page 24, line 21, you state, quote, these initial assessments are a collection of studies that are necessary to compile a coordinated recommendation to continue to preconstruction.

I read that as suggesting that you had made the decision or were leaning toward preconstruction. You're telling me that's not the case; correct?

A No. In fact, if you read further in that quote, these include engineering analyses that will help better define the project schedule and construction scope, enhancing the accuracy of the cost and schedule estimates. So it's feeding a better and more accurate feasibility analysis.

Q Okay. You're not planning on signing an EPC any time soon, are you?

A We're not scheduled to require that until sometime in the 2019 time frame.

Q Are you going to bring that back to the Commission and have them bless that?

A Yes. That will be a part of the request to move from preconstruction into construction.

Q Okay. Did you follow the EPC contract that -- that Duke signed and how that sort of worked out?

A I -- I understand some of the basics of that. I was not privy to the details of that contract.

Q Okay. Are you aware that there's litigation going on now for that for north of 500 million?

A I understand there's litigation ongoing.

Q So from your perspective, you're not going to sign an EPC until you're pretty well certain that you're going to move forward with this; correct?

A Correct. The goal is to have those terms and

conditions, the schedule, the organization and all of that put together in a very tight time frame to again provide the best and most accurate decision basis to go forward.

Q Is FPL doing any contingency planning that if the nuclear project runs into a strong headwind that can't be overcome, that you can put natural gas units down at Turkey Point?

A Again, there is -- within the ten-year site planning process there is a significant amount of looking at options -- of what units could be available. Again, I don't think --

Q So that would be a yes, that you are?

A If you can allow me to fully answer. No, we're not looking specifically at gas-fired units at Turkey Point right now.

Q Okay. That's fine. So the answer is no?

A Correct.

Q Okay. And is there a reason why you're not in the event that the nuclear plant cratered or didn't work out?

A Our long-term resource planning process has served our company and the customers very well. We're reliant on that ten-year site planning process.

Q Okay. So let me ask you this, the Miami

counsel made a point about you're adding transmission cost into -- into this calculation. Is that -- is that true?

A If you're speaking of the feasibility analysis that compares to another combined cycle unit not located in Miami-Dade County, yes, there are incremental transmission costs. And Witness Sim can answer more questions about that.

Q They're over a billion dollars, aren't they?

A Witness Sim can answer all those questions for you.

Q Do you see the trend that I described in my opening and you affirmed about the cost increasing, do you see that reversing in the future?

MS. CANO: Objection. Mischaracterizes the witness's testimony.

MR. MOYLE: I'll -- let me just rephrase, if I could.

BY MR. MOYLE:

Q Do you, as time moves forward, do you see that the projected costs of Turkey Point 6 and 7 are going to come down, are likely to come down, or is it more likely that they'll escalate?

A The projected costs of Turkey Point 6 and 7 may go up and may go down. They're based on a

number of variables that we're going to be looking at very hard.

As the second wave of AP1000 construction, we expect to learn a lot about how to do the contracting, how to do the construction of the modules, how to logistically manage that. There's -- there's already in the Vogtle and Summer experience economies of learning that have been exhibited on the second unit in construction. So labor costs and rates are lower on the second unit than they have been on the first unit, so we would expect to see that benefit. There may be other factors that increase the cost.

Q And you would agree, at least as -- as -- since the need determination and today's hearing, there hasn't been any reductions in the projected cost for Turkey Point 6 and 7; correct?

A Again, there's been no change to the capital cost estimate, the overnight capital cost estimate, but there have been increases based on the change to the schedule.

Q Okay. So my question was there haven't been any reductions to date. That's correct, yes?

A That's a correct statement.

MR. MOYLE: Okay. Thank you. That's all I have. Thank you.

CHAIRMAN GRAHAM: SACE.

EXAMINATION

BY MR. CAVROS:

Q Good afternoon, Mr. Scroggs.

A Good afternoon.

Q We've talked a lot today about overnight costs, and I want to ask you what -- what the all-in cost is over the -- over the life of the units. What's the present value revenue requirement as it stands now?

A I believe that's a question that Witness Sim could better answer.

Q Okay. I'll direct that question to him. There was also some discussion today about sunk costs, and that figure right now, where we stand right now in 2015 is about 250 million; is that correct?

A Projected for the end of 2015, yes.

Q Okay. And if I heard you correctly, I think you said that you don't expect to sign an EPC until 2019; is that correct?

A No earlier than.

Q No earlier than.

Do you have an estimate on what the sunk costs could be at the -- during next year's hearing, 2016?

A I believe our projected amount would add

another 20 million roughly.

Q And in 2017?

A Again, that depends on what activities we're involved with in 2017. By 2017, we potentially would have the combined license, and we would potentially have requested permission to move forward with preconstruction. I think the estimates that we've provided in our TOR-7 indicate about $50 million per year in '17 and '18 to conduct those preconstruction activities.

Q So then come 2019, the sunk costs could be somewhere in the $400 million range; is that correct?

A I believe that what we just discussed would put it at about 370.

Q Uh-huh. And just -- just sort of a follow-up to Mr. Moyle's question, do you know of any nuclear plants that have ever come in under budget?

A I don't know the detailed costing of every nuclear plant that's been built, but, no, I don't.

Q Could you turn to your Exhibit SDS-11, please, in your May testimony.

A I'm there.

Q Okay. And that -- that represents your licensing schedule; correct?

A SDS-11 is a discussion of the amount of money

saved by customers.

Q I apologize. SDS-12.

A Yes. I'm on SDS-12.

Q Okay. Great. And that represents your licensing schedule; is that correct?

A It's the key activities that remain. Yes, sir.

Q Okay. Now there was roughly a 60-day extension on the comment period for the draft Environmental Impact Statement; is that correct?

A At the point that we produced this, it included a -- assumed a 60-day extension, yes, or it assumed the normal period for the comments.

Q Okay. So then it assumed that there might be delay in the --

A This exhibit does not reflect the extension for comments provided by the NRC.

Q Okay. Fair enough then.

Isn't it true that the extension could impact the NRC's ability to meet its previously estimated schedule to issue a final EIS?

A Yes. There are a number of things that could impact that. Our discussion with the NRC right now is that they have not moved that estimated date.

Q Okay. Isn't it also true that the timing and

outcome of the Atomic Safety Licensing Board hearing will affect the timing of the issuance of the combined -- of the COL?

A That's correct.

Q Okay. And isn't it true that there's a legal challenge in the D.C. District Court of Appeal over the NRC's Continued Storage of Spent Nuclear Fuel Rule, which was formerly known as the Waste Confidence Rule?

A I believe there's ongoing activity. I'm not specifically knowledgeable about the specific -- about the nature of that.

Q Okay. And if the -- if the D.C. Circuit, that's what I should have said earlier, vacates the continued storage rule prior to the issuance of the Turkey Point COL, that could prevent or delay licensing, could it not?

A There's a potential for a number of regulatory activities to have an impact, yes, sir.

Q Mr. Scroggs, as you sit here today, can you state unequivocally that FPL will, in fact, build the proposed Turkey Point 6 and 7 reactors?

A No. There are many factors involved.

Q And could you turn to page 9 of your testimony, again, May?

A I'm there.

Q Great. And on line 20, you state that the early cost recovery provides savings for customers. And I believe you've testified to that effect as well; is that true?

A That's correct.

Q And isn't it true that the early cost recovery law allows a power company like FPL to abandon a reactor project and recover construction costs from its customers?

A Again, that's a component of the nuclear cost recovery statute.

Q Uh-huh. Okay. So the answer is yes?

A Yes.

Q Okay. And isn't it true that the early cost recovery law did not provide savings for Duke Energy customers?

A That appears to be the case.

Q And isn't it true that joint ownership of the proposed plant would mitigate the financial risk for FPL customers?

A That's a hypothetical. I -- I can't say yes or no to that question.

Q Uh-huh. Well, let's -- let's -- let's use maybe a more explicit example. If FPL was a 50 percent shareholder and another utility company agreed to -- to

joint own the project and joint invest in the project, then FPL customers would necessarily be investing about -- or rather the company, FPL, would necessarily be investing about half of what they normally would. Thereby, wouldn't that mitigate the risk to the company and its customers?

A Again, yes. Any -- any change in the amount would do that. It would also reduce the benefits.

Q Uh-huh. Okay. And isn't it true that FPL does not have a joint owner for this project?

A At this point in time -- correct, at this point in time we don't. I have annual meetings with a number of utilities in the state looking at keeping them informed and determining when the right time is to proceed with those discussions.

Q And subject to check, you would agree that Section 366.93(a) states that after a petition for determination of need is granted, a utility may petition the Commission for cost recovery?

A That sounds correct, subject to check.

Q Okay. So, Mr. Scroggs, is FPL willing to relieve its customers of some of the financial risk in this project by agreeing here today to absorb some of the preconstruction costs?

A No. FPL is willing to abide by the NCRC

statute as the legislature has put it forward. That's -- that's the way we operate.

Q Okay. So the answer is no?

A I believe that's what I said, yes, sir.

MR. CAVROS: Okay. Thank you. No further questions?

CHAIRMAN GRAHAM: City of Miami.

MS. MÉNDEZ: Thank you, Chairman.

EXAMINATION

BY MS. MÉNDEZ:

Q Good afternoon, Mr. Scroggs.

A Good afternoon.

Q A few questions that I wanted to ask you. You're obviously very much familiar with the Turkey Point project 6 and 7?

A That's correct.

Q And you testified at the site certification hearing before the DOAH judge back in summer of 2013 on this project?

A I have.

Q And you've testified several times on behalf of FPL in front of this very Commission on Units 6 and 7; correct?

A Can you say that again, please? I didn't hear the question.

Q You've testified before this very Commission, the Public Service Commission, in the past on Units 6 and 7?

A Yes, that's correct.

Q In your direct testimony, which you have a copy there; correct?

A Correct.

Q Dated May 1, 2015, on page 27, lines 4 through 7, you stated that "The final order resulting from the SCA preserved the project and ancillary features as proposed by FPL, and is therefore consistent with the project as envisioned in the current cost estimate range"; correct?

A Correct.

Q Is it conceivable then that the final order that was issued by DOAH back in 2013 could have altered the project and made it inconsistent with your current cost estimate ranges?

A If there -- yes. If there were conditions or other things added to that final order for compliance that changed the project costs materially, it could have affected, yes.

Q And you also mentioned in your direct testimony on page 3, lines 17 through 20, that the site certification final order has been appealed.

A That's correct.

Q And at this time oral arguments are set for August 31st approximately, more or less?

A That's a correct statement. That's not in my testimony.

Q And if -- that possible outcome of the appeal, can that change your cost estimate ranges if certain conditions are added or if it's remanded for other conditions to be added?

A In broad answer to your question, yes. My understanding is the appeal would -- would find fault with the judge's recommendation and remand that back to DEP. So there wouldn't be a direct condition added as a result of the appeal, but it could be a subsequent result.

Q Fair enough. And should the appellate court reverse the final order, is it possible that the project could be altered then again or extended then again, which would also add cost changes to your estimate?

A Yes. It's possible that remanding it for further review could increase the project schedule. But at present, it looks like the project could survive some considerable deliberation on the site certification without it becoming the critical path.

Q And what -- now that you bring up critical

path, what are things that you would consider could be a critical path that would actually alter the cost estimates?

A Again, receipt of the combined operating license on the current schedule is a -- is a critical path item. Receipt of the Army Corps' permits on the current schedule would be a critical path item.

Q Anything having to do with the EPA, could that be a critical path item as well?

A Theoretically, yes. The EPA participates through the NRC licensing process and the Army Corps' 404 process.

Q Based on the certification hearings that were held back in 2013, were you planning or was FPL planning to have the transmission lines already built by now?

A No.

Q And when did you anticipate having those transmission lines built?

A The transmission component of the project would occur sometime prior to the COD dates by maybe five years. So with COD dates of 2027 and 2028, the transmission lines would probably begin construction in the '22 and '23 time frame.

Q And there was never testimony, to your knowledge, that the transmission lines were going to be

built earlier than that, within two years?

A Correct.

Q There are two main transmission line corridors contemplated in the final order; correct?

A Actually, no. Three. One is an alternate on the west side of the -- of the system. So there are two on the west, only one would be ultimately built, and one on the east.

Q And is there a condition as a part of the eastern transmission line preferred corridor or even the alternate corridor that FPL cannot begin any construction unless and until the project receives all of its federal approvals from the U.S. Nuclear Regulatory Commission, the Army Corps of Engineers, the EPA, et cetera?

A That is a component of the final order, yes.

Q And as you've testified earlier, most of the federal approvals have not occurred yet; correct?

A Correct.

Q A portion of FPL's preferred western transmission line requires a land swap with the National Park Service and Everglades National Park; correct?

A That's correct.

Q Has that swap been approved yet or occurred?

A No.

Q You mentioned also that you have been a representative of FPL for about 13 years?

A I've been employed by FPL for approximately 13 years, yes.

Q Then you know that the U.S. Regulatory Commission released a draft Impact Statement earlier this year with regard to this plant; correct?

A The draft Environmental Impact Statement for the land exchange was released earlier this year, yes.

Q And is that the only one that has been released?

A Correct. I'm sorry. It was released in 2014.

Q And various public agencies and government agencies have also submitted comments to the NRC draft; correct?

A Correct.

Q And that's one of the things that has held up the process with regard to the plant licensing?

A No. And let me explain the -- just to untie it a bit. There was a draft Environmental Impact Statement produced by the National Park Service in 2014. That is on schedule to be finalized by the end of this year.

There was a draft Environmental Impact Statement published this year by the NRC as a component

of the combined license. Comment period for that draft Environmental Impact Statement ended at the end of July, and the NRC is now compiling and reviewing those comments.

Q So that has not been -- no licensing has been issued yet based on this comment period, correct, or the extended --

A Correct. It's a -- it's a normal part of the process that they collect public comments and consider those when finalizing the document.

Q And now is when the NRC is reviewing all those comments and the additional comments for the period, the extended period?

A For the draft Environmental Impact Statement that will support the combined license, yes.

Q Now the final Environmental Impact Statement that was released by the Nuclear Regulatory Commission, do you think that that will potentially make or have changes that will affect your cost estimates?

A My understanding of what's been considered and discussed in the draft comments, I think there's a request for further information. But I didn't see any requests that would be a material cost impact to the design and construction estimate that we put together.

Q But it is something that could change your

cost estimates from the ones that are presently had at this time; correct?

A Again, it's possible. But the function of the Environmental Impact Statement is -- is more advisory to say what this project will do. It doesn't include conditions directing us to do anything a specific way. So it's unlike the final order in the site certification which does provide very specific conditions that we must comply with going forward.

Q So are you saying that any comments from the EPA on this Environmental Impact Statement is nothing that you would have to take into account for your costs, even if they're advisory?

A Again, the nature of the comments -- no, because the nature of the comments are asking the NRC to more fully investigate certain aspects of the project.

Q And would those investigations add additional costs to your project?

A Again, they would add potentially different licensing stage costs, but they wouldn't be anything that I would -- would expect to be material enough to change the economic feasibility analysis.

Q But we don't know what those comments are going to be or what they could add onto your project at this time.

A We have fully reviewed all the comments submitted on that project, so, yes, we do know what those comments are. We do not yet understand how the NRC will respond to those comments and address those comments.

Q And then the NRC could add potential other conditions or ask you to do additional work that could change your costs?

A It's again -- yes, it's possible. But, again, our assessment at this stage is it wouldn't be material to change the results of the feasibility analysis.

Q At least at this time because you don't have the NRC comments back; correct?

A I'm sorry?

Q You don't have the NRC comments to those -- to the environmental impact.

A Right. The next step -- correct, we do not have them. The next step would be for the NRC to address those comments in the final EIS.

MS. MÉNDEZ: At this time, Chairman, I'd like to pass out, if possible, the EPA comments on the Nuclear Regulatory Commission draft Environmental Impact Statement for Turkey Point 6 and 7.

CHAIRMAN GRAHAM: Okay. Staff will pass it out for you.

We'll give this an exhibit number of 75.

(Exhibit 75 marked for identification.)

BY MS. MÉNDEZ:

Q Mr. Scroggs, you said that you were familiar with this document, with the EPA document?

A I am.

Q And if you could turn to page 1 of the comments.

A Is that -- is that the page with the date on it? Because it's not numbered. I'm assuming --

Q Yes. Correct.

A I got it.

Q And were you aware that -- obviously you were aware. You mentioned that the EPA had issued these comments, but that they stated that there are a number of serious concerns regarding the direct, indirect, and cumulative impacts of this project, and that further information and clarification is needed.

A That is a part of the process, yes.

Q And if you could turn to page 10. Were you aware that one of the EPA's specific concerns was that FPL could eventually require more water from the radial collector wells than currently estimated, and that FPL may need to withdraw fresh water to the supply -- to supply the needs of two new reactors in the event that

adverse circumstances arise and backup water sources fail to supply a sufficient quantity?

A I'm aware that they've stated such. I believe that they're not fully informed, and we look forward to working with them on that.

Q Is this something with regard to the radial collector well system that you would take into account as a change in cost to your project if more -- a better system or a larger system or an enhanced system was requested by the NRC?

A Again, I don't understand that that is the role of the NRC to request that we make changes. The role of the NRC is to look at the application as we have provided it and determine whether or not it meets the requirements for a combined license.

Q So if they deny or they give you conditions saying that the radial collector wells are not sufficient, then that's not something that you would try to remedy or give them more information so that they are aware that the project runs well with the radial collector wells as they are now?

A Again, there's a million hypotheticals here. But I think, as you recall, there's a very strict time requirement that's a part of the condition of the state site certification that limits our ability to use the

radial collector wells to under 60 days in a -- in a calendar year period.

So we've already contemplated a very strict limitation on the radial collector well usage, and, again, I -- I don't see a concern as addressed through the NRC EIS process changing our design.

Q But it's always a possibility that they could.

A Again, as I've explained, I don't believe that's the role of the NRC is to design our project for us.

Q Now even though you feel that the NRC -- it's not the NRC's role, is it possible that the EPA's comments could result in changes to the conclusions in the draft Environmental Impact Statement?

A It could have that effect, yes.

Q And, in essence, then the final Environmental Impact Statement could conclude that the project as proposed would have impacts beyond the levels that were currently contemplated.

A If you're asking me if it's a possibility, yes, it's a possibility. Based on my familiarity and the rulings that we received at the state level on these same issues, I do not see it as a realistic possibility.

Q But it is a possibility.

A I believe I've said that, yes.

Q Could such changes in the findings in the federal review result in alterations in the project to make it consistent with the current cost estimate range?

A I'm sorry. I'm going to have to ask you to restate that question.

Q Could such changes to the findings that we discussed that you think may not be a possibility, but could that make an alteration to the project that would make it inconsistent with your current cost estimates?

A Again, that is a possibility. I do not see it as a realistic possibility.

Q Has FPL submitted to the PSC any documents that address these possible problems? Or based on the fact that you think that it's not, the answer is probably no?

A FPL has submitted to the NRC the results of the state site certification process. The body of evidence presented in that process is a part of the NRC body of evidence. We believe that satisfactorily addresses the EPA's concerns. So, yes, that information has been submitted to the proper authorities.

Q In your direct testimony on page 29, lines 13 through 15 --

A Is this May testimony?

Q Yes.

A Twenty-nine. I'm there.

Q Thirteen through 15.

A Okay.

Q You state that the term of the 40 years was chosen as a conservative estimate of the operating life of the units based on the initial term of the NRC combined license; is that correct?

A Correct.

Q And the combined license that FPL is asking the U.S. Nuclear Regulatory Commission to approve would allow FPL to operate the project for a term of 40 years; correct?

A That's correct.

Q For FPL to operate the project for a total of 60 years, it would need to go through another licensing process with the Nuclear Regulatory Commission; correct?

A Correct. It would be an extension.

Q An extension process or request?

A That's correct. A license extension application.

Q And that's a separate application; correct?

A That's correct.

Q Would such a request to extend this licensing extension application -- is that how you called it -- would that occur only after Turkey Point 6 and 7 have

become operational?

A Certainly we wouldn't ask for a license extension prior to building Turkey Point 6 and 7, so, yes.

Q So a 20-year renewal is not a guarantee of a 40-year combined license from the Nuclear Regulatory Commission since it's a separate application?

A If you will allow me to answer your question as I -- the 40-year license is --

Q If you could say yes or no, and then elaborate.

A I can't answer your question yes or no. If you could rephrase, I'd appreciate it.

Q Then -- then answer it as you wish to answer it.

CHAIRMAN GRAHAM: You can always restate the question and then answer that.

THE WITNESS: Okay. I understand. What we're requesting now, the combined license term is 40 years. If we were to extend that by 20 years, we would have to apply for a separate license extension. That license extension would occur sometime prior to the 40-year term of the initial license.

BY MS. MÉNDEZ:

Q So the -- I'm going to try and ask the

question again like I asked it then. So the 20-year extension is not a guarantee just because you received a 40-year extension.

A That's correct.

Q A 40-year, initial 40-year license.

A That's correct.

Q Okay. Is there even a certainty that FPL will be able to or would find it economically feasible to operate the units for more than 40 years?

A Is it -- I'm sorry. Could you answer -- ask that again, please?

Q Is it even a certainty that FPL will be able to or would find it economical to operate the units for more than 40 years?

A It is not a certainty, no.

Q In your rebuttal testimony on page 11, lines 13 through 20 --

MS. CANO: Objection. This witness will be reappearing to cover rebuttal later in the case.

MS. MÉNDEZ: Okay.

CHAIRMAN GRAHAM: You beat me to it.

MS. MÉNDEZ: That's the separate part that you said.

CHAIRMAN GRAHAM: Yes.

MS. MÉNDEZ: Sorry. I didn't catch the

separation.

CHAIRMAN GRAHAM: That's okay. That's quite all right.

BY MS. MÉNDEZ:

Q You explained a little bit about the off-ramp process earlier, and you said with regard to that that you modify, I guess, based on a faster pace or a slower pace with regard to the project?

A Correct. In response to what we evaluate as opportunities or challenges, we make a decision on whether to accelerate or decelerate our activities.

Q And any of these accelerate or deceleration actions, for lack of a better word, those could affect your cost numbers?

A Yes. And they're a means of controlling costs.

Q Are some of these off-ramping situations, are those done deliberately, by choice, or sometimes just as a result of -- of the processes that are taking place?

A Well, as we've described it, the off-ramps are a managerial decision. They're a decision based on the circumstances as to whether or not we should wait something out. And as I described, my example was by postponing preconstruction costs, we've avoided incurring those costs waiting for the licensing to

complete.

Q Now the cost numbers that -- that have been submitted thus far, have those taken into account sea level rise factors?

A Yes.

Q And sea level rise factors base, like, one foot -- one foot for, like, 70 years of time or something to that effect?

A That's the assumption that we've used based off of the NOAA's recommendations.

Q And you had mentioned, I believe, based on questions asked by Mr. Moyle, that the Turkey Point plant is over 20 feet?

A Yes. The grade at the nuclear island will be approximately 26 feet above sea level.

Q And then the -- some of the ramps leading to it, do you remember based on your testimony, from the Turkey Point 6 and 7, some of the ramps to get to the Turkey Point Turkey Point, those -- do you remember the -- how high above sea level those are?

A Again, from the normal road network system in the area, up to 26 feet they would provide a continuous ramp between those two elevations.

Q And the areas around Turkey Point such as the small municipalities that are around, are those at sea

level or zero to three feet pretty much?

A Again, that's not part of my testimony. If you'd like to point me to where we discuss that, I'd be happy to talk about it.

Q Do you know at this time?

A Again, I don't have sea level elevations of local municipalities committed to memory. I apologize.

Q If I were to advise you that the sea level in Miami-Dade County pretty much is zero to three feet all the way around, would you accept that?

MS. CANO: Objection. None of this is relevant to this witness's testimony we're filing here today. They also seem to be relitigating some of the issues that were decided upon in the SCA proceeding.

MS. MÉNDEZ: No, not at all. This has to do with pretty much cost overruns that I do not think that FPL has at all taken into account with regard to this project, and those are things that this Commission can consider.

CHAIRMAN GRAHAM: I don't know if that's something that this witness can handle. I think that's something you can do in your briefs.

MS. MÉNDEZ: Thank you.

BY MS. MÉNDEZ:

Q With regard to your cost numbers, was storm

surge or any type of tsunami factors taken into account?

A Yes.

Q Was increased seismic activity in the Caribbean and any surges of ten feet that could come from there, was that taken into account?

A The seismic review as part of the NRC safety review goes through a very extensive review of all seismic reactive formations in the region, even as far out as the Azores in the Atlantic, and the NRC is responsible for review of that.

Our hurricane surge, tsunami events, maximum surge from those events are based on a full understanding of that seismic activity.

Q And are those taken into account for your costs, in the costs that are proposed here?

A Yes.

Q Are issues with your cooling canals at Turkey Point that are affecting Units 3, 4, and 5 and how -- putting in 6 and 7, are those taken into account with regard to your costs?

A All the impacts to the cooling canal systems of the construction of Turkey Point 6 and 7 are included in the costs.

Q Is saltwater intrusion into the Biscayne aquifer, is that being taken into account in any of the

costs that are here today, or things that need to be done in order to abate that?

A Again, the Biscayne aquifer underneath the Turkey Point 6 and 7 project is fully saltwater intruded and has been for probably 50 years or more. We do not address the nature of the saline aquifer underneath the construction site.

Q So that's not addressed in your costs?

A There are no costs.

Q So is that a no?

A That's a yes, they're addressed. There are no costs.

Q Are any environmental or drought issues with regard to alternate sources of water, as Turkey Point is the largest consumer of water in South Florida, are those issues addressed with regard to your costs?

A All costs related to water consumption to operate Turkey Point 6 and 7 have been included in the costs.

Q With -- specifically with regard to any drought or loss of water or backup water sources, has that been addressed?

A Yes.

Q And were all these issues that I have asked you about, were they addressed in the original

determination of need?

A Again, yes.

Q You mentioned earlier -- and I don't remember who asked you the questions, I believe it was Mr. Moyle, but I'm not certain -- when you were talking about the fuel, the nuclear fuel, do you remember that line of questioning? And I believe it was Mr. Moyle.

A I remember discussing nuclear fuel, yes.

Q And you said that pretty much the nuclear fuel was kept at an onsite storage facility at Turkey Point.

A Our plan for Turkey Point 6 and 7 is to use the -- the storage within the design and augment that with onsite spent fuel storage.

Q And you said that the -- the site as it is now is the size of a football field?

A Yes.

Q And when you say football field, and I'm not good at football at all, but college size football field, NFL?

A Yes, ma'am.

Q And were any potential catastrophic risks that could occur there, was that taken into any of your cost analysis with regard to this project?

A Again, all the costs of complying with the NRC's requirements for spent fuel storage were included

in the cost estimate.

Q Has FPL, as a part of this project, at all looked at raising the surrounding areas with regard to sea level -- I'm sorry -- with regard to their location at sea level? Is that something that FPL has looked into?

MS. CANO: Objection, asked and answered.

MS. MÉNDEZ: I believe the questions that I asked earlier were if he knew the sea level calculations for the municipalities, not if FPL had done a study with regard to raising municipalities or adding pilings in the area of Turkey Point.

CHAIRMAN GRAHAM: I'll allow him to ask the -- answer the question.

THE WITNESS: No. FPL has not done any studies with regards to raising surrounding municipalities.

BY MS. MÉNDEZ:

Q A question was asked of you with regard to joint ownership with another power plant or power company. When would something like this be discussed with regard to Turkey Point?

A Again, we've been in annual meetings and conversations with a number of utilities in the state of Florida who have expressed an interest. Because of the

NRC filing and application process, it would be disruptive to interject a new owner while an application is being reviewed. So the proper time for that is after the application is reviewed and a license is granted, then we can sit down with potential participants and determine if there's an interest, and, if so, what's the best way to bring them into the project.

Q And is that something that would be contemplated with regard to the transmission lines and stabilizing the grid and sending electricity out to other states on the backs of ratepayers?

A Can I answer your question in parts?

Q Of course.

A The need determination and our ongoing planning assumes that FPL customers have 100 percent of the need for this plant. So none of this power generation associated with Turkey Point 6 and 7 is intended or being contemplated for being sent out of state or to benefit any others than FPL customers.

If there are benefits from a potential partnership with another utility, then that would be considered, and, again, FPL customers would have to see some portion of benefit for that to be contemplated.

Q And if something like that were to be contemplated, would all the cost recovery that has been

done upfront be reimbursed to the ratepayers?

A Again, there would be some overall consideration of costs and benefits for those that participate in the project, and obviously we would look for an equitable involvement in that. It may or may not involve some recompensation to FPL customers. They'd get their values somehow, but I can't hypothesize how.

Q So there would be an option where the ratepayers might not see a return back of monies if there was a co-ownership of this plant?

A That could be one alternative, yes.

MS. MÉNDEZ: Thank you. No further questions.

CHAIRMAN GRAHAM: Staff?

MS. BARRERA: Thank you. Good afternoon, Mr. Scroggs. I'm Martha Barrera with staff. Staff is about to provide for you for ease of reference several exhibits that I'll be referring to. Thank you.

CHAIRMAN GRAHAM: Staff, are your questions going to be longer than ten, 15 minutes?

MS. BARRERA: Yes, sir.

CHAIRMAN GRAHAM: All right. I think we should go ahead and take a ten-minute break now. By that clock back there, let's reconvene at 5:00.

MS. BARRERA: Thank you.

(Transcript continues in sequence with

Volume 3.)

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, CRR, RPR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 25th day of August, 2015.

Linda Boles

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