BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 110009-EI
FLORIDA POWER & LIGHT COMPANY

MAY 2, 2011

IN RE: NUCLEAR POWER PLANT COST RECOVERY
FOR THE YEARS ENDING
DECEMBER 2011 AND 2012

TESTIMONY & EXHIBITS OF:

STEVEN D. SCROGGS

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FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF STEVEN D. SCROGGS

DOCKET NO. 110009-EI

MAY 2, 2011

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 any exhibits in this case?

A. Yes, I am sponsoring the following exhibits:

- Exhibit SDS-15, a graphic depiction of the four phase new nuclear deployment process and project schedule.
- Exhibit SDS-16, Turkey Point 6 & 7 Preconstruction Nuclear Filing Requirement Schedules (NFRs) consists of 2011 P Schedules and 2011 True-up to Original (TOR) Schedules. The NFR Schedules

contain a table of contents listing the schedules sponsored and co-sponsored by FPL Witness Powers and me, respectively. FPL has included the 2011 P Schedules as they are the basis for determining the reasonableness of the true-up of FPL's 2011 AE Schedules. The 2011 TOR Schedules present a summary of costs that are the basis for the revenue requirements being recovered in 2011.

- Exhibit SDS-17, Turkey Point 6 & 7 Site Selection NFRs consists of 2011 P Schedules and 2011 TOR Schedules. The NFR Schedules contain a table of contents listing the schedules sponsored and co-sponsored by FPL Witness Powers and me, respectively. FPL has included the 2011 P Schedules as they are the basis for determining the reasonableness of the true-up of FPL's 2011 AE Schedules. The 2011 TOR Schedules present a summary of costs that are the basis for the revenue requirements being recovered in 2011.
- Exhibit SDS-18, Turkey Point 6 & 7 Preconstruction NFRs consists of 2011 AE Schedules, 2012 P Schedules, and 2012 TOR Schedules. The NFR Schedules contain a table of contents listing the schedules sponsored and co-sponsored by FPL Witness Powers and me, respectively.
- Exhibit SDS-19, Turkey Point 6 & 7 Site Selection NFRs consists of 2011 AE Schedules, 2012 P Schedules, and 2012 TOR Schedules. The NFR Schedules contain a table of contents listing the schedules

sponsored and co-sponsored by FPL Witness Powers and me, respectively.

- Exhibit SDS-20, consisting of summary tables presenting the 2011 actual/estimated and 2012 projected preconstruction costs for the Turkey Point 6 & 7 project.

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 developed, managed and controlled to create the option for more reliable, cost-effective and fuel diverse nuclear generation to benefit FPL customers under the earliest practicable deployment schedule. The project undertakes the steps necessary to license, construct and operate two Westinghouse designed AP1000 nuclear reactors and associated transmission and ancillary facilities at the Turkey Point site near the existing Turkey Point 3 & 4 nuclear power plants in southern Miami-Dade County. My testimony will provide insight into how project activities are managed given the near term focus on obtaining all licenses, authorizations and approvals needed and the factors influencing key decisions affecting the nature, cost and pace of that effort. I will also describe the projected expenditures for 2011 and 2012 allowing FPL to support and defend the applications submitted in 2009 requesting the required licenses and permits.

Q. Please describe how your testimony is organized.

A. My testimony includes the following sections:

1. Project Approach

2. Process and Risk Management

3. Procurement

4. Issues Potentially Affecting Project

5. Key Decisions & Milestones

6. Preconstruction Cost Request

7. Project Cost and Feasibility

Q. Please summarize your testimony.

A. The primary focus of the current phase of the project has been, and remains, obtaining the necessary federal, state and local approvals that will define the project and enable construction and operation of the Turkey Point 6 & 7 project. In doing so FPL is creating a valuable option that can be exercised at the most opportune time for the benefit of FPL customers. My testimony describes the project milestones expected to be achieved in 2011 and 2012, and the factors affecting the pace and execution of the Licensing phase of the project. The Licensing phase is the second step in a four step process, depicted in Exhibit SDS-15.

Key decisions control the pace of the project to maintain progress without incurring unnecessary cost or schedule risks. FPL has made decisions in past years to defer planned expenditures in long lead procurement, design engineering and the initiation of prime contracts (early stage Preparation phase activities) awaiting higher predictability in project schedule and cost. The projected in-service dates of 2022 and 2023 are based on the premise that

predictability will be developed to begin Preparation phase activities in late 2012 and early 2013. Recognizing that this needed clarity and clear path to construction has not sufficiently developed, expenditures in 2011 and 2012 are limited to those required to obtain the needed licenses, permits and approvals for operation and construction of the project. FPL will be monitoring several major milestones expected to occur in 2011 and 2012 that will have influence on the predictability of the Turkey Point 6 & 7 project cost and schedule. The unfolding industry and regulatory response to the recent events in Japan are anticipated to be a significant influence. FPL Witness Diaz provides a comprehensive perspective on the events and the potential influence on U.S. nuclear programs.

My testimony discusses the content of the $38.0 million of actual/estimated Pre-construction costs planned in 2011 and the $31.4 million of projected Pre-construction costs planned for 2012, and why they are reasonable. Moreover, I will discuss the rationale for these expenditures and how they will be managed going forward to meet project objectives. These amounts contribute to a total company request to recover approximately $196 million in 2012, as described by FPL Witness Powers. This equates to a residential customer monthly bill impact of $2.09 per 1,000 kWh. The testimony also addresses the economic and fundamental feasibility of the project, concluding the project remains feasible with the capability to deliver the cost-effective, reliable, fuel diverse baseload generation needed in our future without

greenhouse gas emissions as envisioned in the Florida Public Service Commission (Commission) 2008 Need Order authorizing the project.

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 related in this testimony, FPL expects that the Turkey Point 6 & 7 project will:

- Provide estimated fuel cost savings for FPL's customers of approximately $1.1 billion (nominal) in the first full year of operation;
- Provide estimated fuel cost savings for FPL's customers over the life of the project of approximately $75 billion (nominal);
- Diversify FPL's fuel sources by decreasing reliance on natural gas by approximately 13% beginning in the first full year of operation;
- Reduce annual fossil fuel usage by the equivalent of 177 million barrels of oil or 28 million mmBTU of natural gas; and
- Reduce CO2 emissions by an estimated 287 million tons over the life of the project, which is the equivalent of operating FPL's entire generating system with zero CO2 emissions for 7 years.

These quantifications are set forth in FPL Witness Dr. Sim's testimony and Exhibit SRS-1.

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 process navigating the project through the four phases of project development: Exploratory, Licensing, Preparation, and Construction. The project has completed the Exploratory phase, and is currently focused on the Licensing phase prior to initiating Preparation phase activities. The approach allows FPL to make necessary progress without taking on the risks of committing to a specific construction schedule and the associated expenditures.

Therefore, FPL's approach has been developed as a step-wise process. Continuous monitoring of a wide range of factors and events is accomplished to help resolve uncertainty and increase 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 a host of 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 constantly being assessed through a set of routine 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, defer or otherwise manage the impact. If the magnitude of the impact materially affects cost or schedule, or changes the feasibility of the project, a decision will be made as to whether such impact is acceptable in light of all current information. Annually the Commission will

review the results of these changes. Options available 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 option 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.

Q. How has this project approach specifically been applied to the activities planned for the Turkey Point 6 & 7 project in 2011 and 2012?

A. In 2011 and 2012, FPL maintains the course developed in early 2010 when the project schedule was revised to remove the overlap between Licensing and Preparation phase activities. The 2010 review indicated that it was prudent to continue licensing efforts, but any expenditures committing to a specific construction schedule (such as long lead procurement) or conducting initial site engineering would be premature.

For example, the unanticipated events in Japan will likely impact the project schedule. FPL's approach has limited the impact of this unforeseen occurrence by not embarking on Preparation phase activities that may now be delayed. Maintaining the balance between making progress and managing expenditures will be reinforced as the industry and regulators respond to the events in Japan of March 2011.

FPL's resulting plan for 2011 and 2012 focuses on activities supporting the review of federal, state and local license and permit applications. The stepwise approach suggests that the best course of action in the next two years is to continue progress on obtaining all approvals while observing the application review processes underway, the developing commercial market for construction and equipment services, national and regional energy policy, and the actual experience of preceding U.S. and International projects. Information from these events will provide a better basis to develop a project execution plan that reduces risk to expenditures.

PROCESS AND RISK MANAGEMENT

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

A. The Turkey Point 6 & 7 project requires a wide range of specific experience in the development, design, construction and licensing of nuclear generation. There is also a significant volume of information generated as issues unique to new nuclear generation deployment are identified and evaluated. The project management structure of the Turkey Point 6 & 7 project provides for dedicated teams with the requisite subject matter expertise to be coordinated at all levels. This is accomplished through a project organization and reporting structure and a deliberate contracting structure applying the best resources to each issue while maintaining transparent and open

communications. The project organization relies on two principal organizations jointly responsible for the integrated execution of the project. William Maher manages the New Nuclear Plant (NNP) organization with responsibility for Nuclear Regulatory Commission (NRC) licensing and project engineering and construction. I lead the FPL Development organization for all other facets of project development, such as state Site Certification, local zoning approvals, public relations and Commission regulatory issues. Each organization is supported by FPL business units with specific, recent success in the certification, NRC re-licensing and permitting of twelve power generation units in Florida in the past eight years 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 obtain cost, risk and schedule objectives?

A. FPL uses industry accepted project controls, systems and practices to obtain a high level of confidence in 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 direct testimony provided in the March 1, 2011 True-up filing and continue to be utilized in the oversight of the project.

Q. How are these tools reviewed over time and what new tools are being employed as a result of these reviews?

A. Effectiveness measures are included within some mechanisms and provided by external review processes for all. As an example, the Engineering & Construction Division 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 modifications are needed to effect improvement. This tool has been revised recently to more specifically address the unique aspects of the Turkey Point 6 & 7 licensing project. Effectiveness of project control processes is also reviewed as a part of the project management reviews and audits.

Project Memoranda, describing the background and analysis considered in project decisions are an example of a tool developed to ensure a higher level of documentation and transparency in the management of the project. These memoranda have documented decisions made with respect to project features, contracts, cost estimates and schedules.

Additionally, a high level risk summary has been developed to record 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. This tool was developed in response to a comment during a project management review.

Q. What audit and review activities are planned and what are the objectives of these audits?

A. FPL employs a comprehensive suite of audit activities to evaluate and document the conduct of project activities. Standard annual financial audits provide full review of project expenditures to support prudency determination in the subsequent years. Annual internal controls reviews and financial audits are conducted to ensure FPL is appropriately applying all project controls and is adopting the appropriate techniques and tools learned from other projects in the industry. Topical audits are developed as necessary to complement specific areas of key interest at each stage of the project. Examples of topical audits would include quality control audits focusing on specific processes and training audits to verify personnel are receiving required instruction.

Q. What other activities are employed 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. The company works with the U.S. Department of Energy (DOE)

and members of Congress on energy policy matters related to nuclear development.

FPL also participates in four 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), Advanced Nuclear Technology group and the NuStart Consortium. 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 will provide benefits to FPL customers in terms of efficiency and cost control.

PROCUREMENT

Q. Please summarize the results of the procurement activities supporting Turkey Point 6 & 7 project to date.

A. The bulk of project activities and expenditures are related to the development of the detailed studies and analyses required to initiate, sustain and facilitate federal, state and local reviews of the proposed project. FPL has used

competitive bidding for the majority of total project expenditures and used single or sole source procurement when appropriate or where no alternative exists.

Q. What key procurement activities are being addressed by the project in 2011 and 2012?

A. Procurement activities in 2011 and 2012 generally focus on the licensing and permitting process required to support and advance the federal, state and local approval processes. Professional services will be required from technical and environmental consultants, legal service firms and subject matter experts to respond to the inquiries of the public and the reviewing agencies during the application review process or the subsequent hearings. Additionally, the current project schedule calls for Preparation phase activities, such as clearing and grading at the site, in mid-2013. In order to prepare for those activities FPL would need to hire additional staff for its Construction team, conduct engineering reviews and planning, and develop bid packages for the work in 2012. FPL has not included these costs in the projected 2012 request based on the need to observe significant events in 2011 and early 2012 prior to authorizing such expenditures. As more information is developed in 2011 and 2012, FPL will make a decision to move forward on the current schedule or make appropriate revisions.

ISSUES POTENTIALLY AFFECTING PROJECT

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

A. These can be generally grouped into four areas. First, the events surrounding the Japanese nuclear industry in the wake of the March 2011 earthquakes and tsunami are as significant as any that have faced the nuclear industry in recent years. The impacts of these events will likely have operational, regulatory and political ramifications for the U.S. nuclear industry. Second, progress of international and domestic new nuclear projects, specifically in the wake of the Japanese events, will be important inputs to inform management decision-making for the Turkey Point 6 & 7 project. Third, developments in the regional and national economy and energy policy have potential to affect the project. Finally, there are several project specific issues that may impact the project.

Q. Please describe how the events in Japan's nuclear industry may impact the Turkey Point 6 & 7 project.

A. There are likely to be indirect and direct impacts. A tremendous amount of information is generated and studied following major events to determine if changes to existing designs, regulations, operating or maintenance procedures are required. At the same time there will be significant political and regulatory interest in determining what actions are warranted based on these

analyses. Time will be needed to judge the cost or schedule impacts that may result from the implementation of actions related to the events in Japan.

Indirectly, many of the industry and regulatory resources that have been working on new nuclear generation may be tasked with assisting in any required actions determined for existing reactors impacting resources available for new application reviews. Directly, the results of these reviews could change the AP1000 design, or establish new standards to which the AP1000 must demonstrate its compliance impacting the AP1000 Design Certification (DC) Amendment or the Southern Vogtle Reference Combined License application (R-COLA). The potential impacts to cost and schedule cannot be estimated at this early time, but will be monitored during 2011 and 2012.

Q. What do recent developments related to the progress of international and domestic new nuclear energy projects indicate with respect to the continued pursuit of the Turkey Point 6 & 7 project?

A. FPL is monitoring several AP1000 projects to capture issues and challenges and to learn from the experiences of these projects. Internationally, FPL is monitoring progress on the Sanmen 1 & 2 (China, AP1000) and Haiyang 1 & 2 (China, AP1000) projects. The Sanmen and Haiyang projects represent the lead AP1000 technology plants. These projects have completed site preparation and the initial concrete pour for unit foundations and have started

module assembly and placement. At present, they appear to be on schedule and within the original cost estimate.

In the United States, multiple projects are underway. The NRC is currently reviewing several AP1000 projects, including FPL's Turkey Point 6 & 7. Three of these projects (Southern Vogtle, South Carolina Electric & Gas Summer and Progress Levy) are well into the review process and are considered the first wave of AP1000 projects. Scheduled delivery has not changed from inception for the Vogtle and Summer projects, but has moved back two years for the Progress Levy project. In 2010 Duke Energy's Lee project moved its project dates back by approximately four years based on reduced demand in their service areas.

The collective status of international and domestic projects demonstrates substantial progress is being made on the next generation of nuclear projects. Time will be required to gather lessons learned and strategies that would best apply to Turkey Point 6 & 7 project. In general, the pace of these projects are positive, but the milestones to be achieved in the next two years affirms FPL's choice to defer Preparation phase activities as a way to control implementation risks and identify efficiencies.

Q. What are the specific federal licensing milestones FPL will monitor in 2011 and 2012?

A. Three areas are of specific interest to FPL. First, the continued progress of the DC Amendment for the AP1000 design is critical to project success. The DC Amendment has completed technical reviews and has moved to rulemaking in 2011. The completion of rulemaking is necessary before COLAs based on the DC can be issued. The second track involves the progress of the Southern Vogtle COLA. This is the reference COLA for the AP1000 and is reflected in FPL's COLA. Lastly, the Progress Levy COLA includes many technical (geologic and seismologic) similarities to the Turkey Point COLA, and will provide significant feedback to inform the support of FPL's COLA.

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 economic downturn has affected forward expectations for demand growth across the nation. The reduced growth rate has been cited as a reason for deferring in-service dates for some nuclear projects, but has not been a reason to cancel any projects. FPL Witness Sim addresses the impact of changes in FPL demand forecasts on the economic feasibility of Turkey Point 6 & 7, particularly in regard to projections of FPL's resource needs.

The downturn has also had an effect on the cost and availability of capital, particularly in the consumer and small business markets. These observations lead FPL to conclude that no fundamental economic shift has occurred affecting FPL's near term pursuit of the Turkey Point 6 & 7 project.

However, this is an area requiring continuous monitoring to determine the availability and cost of capital to fund the project at the point when considerable spending is initiated associated with the Preparation and Construction phases of the project. Additionally, the recession will have potential effects on the financial health of contractors, vendors and other firms FPL will rely upon to execute the Preparation and Construction phases of the project and will be a factor in forming the project execution team.

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, as proposed by the current administration, is supportive of nuclear energy in general, and new nuclear energy development in specific. Recently, Energy Secretary Steven Chu asked Congress to consider nuclear generation as a part of any "Clean Energy" standard or policy. This practical statement has been preceded by steps to address the DOE responsibility to provide a final disposition of used fuel and proposing a three-fold increase in the funding for DOE Loan Guarantees for new reactors. The administration has reaffirmed its support for new nuclear power following the recent events at the Daiichi plant in Japan.

The administration's renewed commitment to the DOE Loan Guarantee program is supportive of an overall energy policy seeking to increase energy security and reduce greenhouse gas emissions. As FPL has stated before, we

will consider all opportunities that may provide demonstrable benefits to our customers. During the first solicitation (2007 and 2008) the DOE Loan Guarantee program had a small allocation for a large number of perceived potential applicants, was undefined in cost, benefit and structure, and would have required a truncation of FPL's deliberate technology selection process in order to meet the December 2008 COLA filing eligibility requirement. For those reasons, FPL chose not to apply at that time. FPL is monitoring the implementation of first round Loan Guarantees. Should the proposed increased funding be made available, modifications to the DOE Loan Guarantee program qualification criteria instituted and a new solicitation opened, FPL will consider applying.

Regionally, the legislature continues to address questions related to Florida's energy mix, affirming many of the policies implemented in the Florida Energy Act of 2006. Issues cited as important in the Commission's Need Order of April 2008 have not changed. 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 not including new nuclear capacity prolongs reliance on fossil fuels, maintains exposure to fuel supply reliability and price volatility, and is not as effective at reducing system emissions, including greenhouse gas emissions, as a plan including new nuclear generation capacity.

Q. What project specific issues does FPL monitor that may affect objectives for 2011 and 2012?

A. In addition to the national and industry developments discussed in the preceding section, FPL also monitors a variety of issues more specific to FPL and the Turkey Point 6 & 7 project. These issues include economic developments influencing the FPL system, the annual feasibility analysis, the pace of permit and license application reviews, and the development of information supporting the decision to initiate the Preparation phase of the project.

Q. What were the economic developments impacting the FPL system and the project feasibility analysis?

A. As observed last year, the economic slowdown has reduced demand for electricity on the FPL system, and reduced consumption in a number of sectors. As it pertains to the annual feasibility analysis, reduced natural gas demand coupled with incremental supply being identified in central U.S. shale deposits has depressed the price of natural gas. The impact of these issues is discussed later in this testimony and in the testimony of FPL Witness Sim.

Q. Please describe the pace of the COL application review at the NRC and factors affecting the pace of the review.

A. FPL submitted its COL application to the NRC on June 30, 2009. Following an acceptance review, the application was docketed on September 4, 2009. FPL received a review schedule in May of 2010 consistent with the duration of review received by other AP1000 COL applicants preceding FPL.

However, the NRC indicated in January 2011 that the NRC review schedule for FPL's Turkey Point 6 & 7 project is "under review".

Federal budgeting and contracting issues impact the NRC's decisions regarding resource allocation to meet its agency objectives. Resource limitations may result in reduced review resources and a protracted review schedule. Currently the NRC is actively reviewing 12 COLAs (5 COL applicants have requested their reviews be suspended) and 5 DC Documents. Six of the COLAs in review are based on the AP1000 design, and 3 of the AP1000 COLAs have expected in-service dates before FPL's schedule of 2022 and 2023. At the time of this filing, FPL has received no notification of any change to our existing schedule.

Issuance of the U.S. Army Corps of Engineers (USACE) wetland permits are linked to the issuance of the Final Environmental Impact Statement (FEIS) in the NRC COLA process (currently scheduled in 2012), and therefore the actual review period for COLA will directly affect the timing of the USACE permits.

Q. Please describe the pace of the state Site Certification Application (SCA) review and factors affecting the pace of the review.

A. FPL submitted the SCA on June 30, 2009. Considerable interest has been expressed by multiple agencies related to the physical environment surrounding Turkey Point and the complexity of groundwater features in the

region. The result has been an unprecedented number of completeness inquiries from agencies requiring an extensive level of groundwater modeling. These inquiries are being actively addressed by the project team. Achieving completeness is critical to the success and validity of the Site Certification process. FPL will continue to work with all agencies to address the technical issues associated with SCA review to ensure all legitimate issues have been fully addressed prior to proceeding to the SCA Hearing (expected Summer 2012) and subsequent decision by the Power Plant Siting Board (expected Fall 2012).

Q. When would it be necessary to revive commercial negotiations with the Westinghouse/ Shaw consortium?

A. Negotiations with the Westinghouse/Shaw (WS) consortium have been on hold since 2009 recognizing FPL's choice to focus on the licensing aspects of the project and allow significant industry milestones to be achieved in other AP1000 projects. FPL estimates that it must make long lead procurement commitments by 2015 in order to continue to meet the projected 2022 in-service date for Unit 6. Assuming an 18 to 24 month period for negotiation of an appropriate contract, negotiations must be initiated in 2013. Therefore, negotiations with the WS consortium are not planned within the term of this docket request.

KEY DECISIONS AND MILESTONES

Q. What will be the focus of the project in 2011 and 2012?

A. During 2011 and 2012 the focus of the project will be to obtain the state Site Certification and respond to NRC staff as they develop the NRC FEIS and Final Safety Evaluation Report; two reports that will be the subject of the Atomic Safety Licensing Board hearings in 2013. The project will also be monitoring and participating in Everglades National Park's Environmental Impact Statement (ENP EIS) associated with the authorized land exchange along the western Preferred Corridor. As always, the project will continue to monitor industry milestones and events that could have an impact to the overall Turkey Point 6 & 7 project cost or schedule and provide indicators as to when Preparation phase activities are warranted.

Q. Please provide examples of decisions that would be made associated with the State Site Certification process, and how those decisions may affect the project cost and schedule estimate.

A. During the review of the SCA, agencies will assess the potential impacts and necessary mitigation associated with executing the proposed project. Through the course of that exchange, revisions or conditions of certification are often proposed that minimize impacts or assist project features to more closely conform to current regulatory policy. These revisions and conditions can impact the cost and schedule for project execution. In some instances, the revisions may result in considerable costs or execution risks to the project.

The project must make decisions regarding what level of revisions to make, what conditions can be accepted and assess the impact of these changes to project cost and schedule. Additionally, the project will be preparing to defend the applications at hearing and making decisions regarding the nature of that defense and the experts needed to support the case.

Q. What milestones will be experienced related to the State Site Certification process in 2011 and 2012?

A. Two significant milestones for 2011 include achieving completeness of the plant and non-transmission portion of the SCA and obtaining a Land Use consistency determination. In 2011 agencies will complete agency reports on the transmission portion of the SCA. Similarly, agencies will be expected to complete agency reviews on the plant and non-transmission portion in 2012. These reports set the stage for the SCA hearing in mid-2012.

Q. What types of decisions will be made in support of the NRC staff reviews?

A. The NRC staff may request additional analyses and studies to augment the initial submittal. These analyses can range from short topical studies to significant field studies and/or modeling. Project management will be making decisions on the necessity, scope and conduct of any additional work scope. Similarly, NRC staff review may highlight opportunities for revisions to the project and commitments the company may be asked to make regarding conditions of licensing. Revisions and commitments may result in additional project cost or schedule impact.

Q. What milestones are expected in relation to the NRC licensing process in 2011 and 2012?

A. The results of the schedule review underway at the NRC will be a key milestone. As previously identified, the pace and outcome of AP1000 DC Amendment and R-COLA reviews will directly affect the project regulatory schedule. Finally, the response of the NRC to the events in Japan of March 2011 will set the pace and standard for future licensing.

Q. Will the project decisions regarding the ENP EIS and land exchange be similar to those made in the NRC and SCA processes?

A. Yes. The EIS process will result in observations and recommendations. The Secretary of the Interior may choose to place conditions on the land exchange as a result of these observations and recommendations. FPL will be required to assess the nature of these conditions and determine the impact to project cost and schedule. It is expected that a public scoping meeting will be held in 2011, followed by the development of a draft EIS. Comment will be collected on the draft EIS and a final EIS developed in 2012.

Q. What decisions and milestones may be made related to project schedule?

A. As previously stated, the project is focused on obtaining the licenses and approvals needed to create the option for new nuclear generation. However, FPL has maintained a schedule that provides an "earliest practicable in-service date" for planning purposes. This schedule allows the project to conduct the economic feasibility analysis required in this docket. The date assumes that needed predictability is achieved in regulatory, commercial and project

execution areas. If the project proceeds on its current scheduled pace and maintains its planning date of 2022 for Unit 6 in-service, early Preparation phase steps would need to begin in 2012 or 2013. These steps include hiring construction project staff and engaging in the preliminary engineering related to site clearing and access road construction. FPL has not included these costs in the projected 2012 request based on the need to observe significant events in 2011 and early 2012 prior to such expenditures. As more information is developed in 2011 and 2012, FPL will make a decision to move forward on the current schedule or make appropriate revisions.

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

A. Yes. The most important near term activity is creating the option by obtaining the licenses and approvals necessary to construct and operate Turkey Point 6 & 7. Once approvals are obtained, FPL will be able to review the economics and the experience of other new nuclear projects as well as how state and federal energy policies have evolved. The Commission will continue to have the opportunity to review FPL's plans through the NCRC process.

FPL's decision to carefully manage the risk of inefficient expenditures will allow the project to better advance through the early uncertain periods, thereby enabling the project to proceed to a later stage where risks can be better identified, quantified and mitigated. Considering all project specific and industry factors, this is a responsible and prudent course of action to

continue progress in creating the option for new nuclear generation for our customers.

Q. Are there other decisions that will be required in 2011 or 2012?

A. Yes. FPL executed a Forging Reservation Agreement with Westinghouse in 2008 to secure manufacturing capacity for ultra-heavy forgings needed to support the project's previous schedule. The agreement has been extended several times to allow FPL and Westinghouse to monitor industry developments and determine the best disposition of the existing reservation agreement. The current extension expires June 15, 2011. FPL intends to complete negotiations of a new agreement by that date.

2011 & 2012 PRE-CONSTRUCTION COSTS

Q. How are the 2011 actual/estimated costs and the 2012 projected costs developed?

A. As described earlier, 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 2011 actual/estimated and 2012 projected costs were completed in accordance with FPL's budget and accounting guidelines and policies. Where services are contracted, rate sheets 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 2011 actual/estimated and the 2012 projected costs presented in this filing.

A. The $38 million of expenditures estimated for 2011 are solely related to the pursuit of licenses and permits for the project. All 2011 costs provide for FPL staff and contractors necessary to support and advance the various applications throughout the review period with the participating agencies. As discussed earlier in this testimony, no engineering design or procurement activities are planned for 2011. Costs in the engineering and design category are related to the construction of an exploratory well necessary to complete the Underground Injection Control (UIC) permitting process.

In 2012, it is projected $31.4 million of expenditures will be incurred to support the continued review of the project applications. Support costs for the licensing and permitting activities are expected to be lower in 2012 assuming the completion of the SCA reviews by mid-2012.

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

A. As discussed previously, the 2011 and 2012 budgets are based on estimates of the requirements to support the expected scope and schedule for application reviews and approvals. Licensing and permitting support will take the form of subject matter expertise, studies and analyses in response to agency requests. While FPL has submitted comprehensive applications meeting the respective

standards, additional information has been requested. Budgets reflect the information requested to date. Similarly, if significant intervention is registered against the applications, the cost of supporting the applications at hearing may increase. Current estimates assume some opposition is presented.

As we have seen, the pace of these projects can change. If conditions warrant, some Preparation phase activities may be advisable in the latter part of 2012. However, no expenditures for 2012 Preparation phase activities have been included in this request.

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

A. Schedule AE-6 of SDS-18 presents the 2011 actual/estimated costs in the following categories: 1) Licensing $28,789,986, 2) Permitting $2,416,877, 3) Engineering and Design $6,748,673, 4) Long Lead Procurement advance payments $0, 5) Power Block Engineering and Procurement $0, and 6) Transmission Engineering $0. Schedule P-6 of SDS-18 presents the 2012 projected costs in the following categories: 1) Licensing $27,362,894, 2) Permitting $2,420,144, 3) Engineering and Design $1,610,050, 4) Long Lead Procurement $0, 5) Power Block Engineering and Procurement $0, and 6) Transmission Engineering $0. Table 1 of Exhibit SDS-20 provides a summary of the actual/estimated 2011 and projected 2012 Preconstruction

costs. The descriptions in Exhibit SDS-20 tables are illustrative and do not provide full line item detail.

Q. What major differences are noted for the 2011 and 2012 project budget when compared to FPL's prior filings?

A. There is no significant difference in the project budget for 2011 and 2012 when compared to FPL's prior filings. Some adjustments have been made to accommodate for shifts in project schedule from year to year. For example, development of the UIC wells will occur in 2011 and 2012, where previously budgeted for 2010 and 2011. Similarly, extensions of the SCA schedule deferred legal costs for hearings into 2011 and 2012. This results in increasing the 2011 actual/estimated expenditures approximately $8.5 million more than projected in the May 2010 filing.

Q. Please describe the activities included in the Licensing category for the 2011 actual/estimated costs and the 2012 projected costs.

A. For the period ending December 31, 2011, Licensing costs are projected to be $28,789,986 as shown on Line 3 of Schedule AE-6 of SDS-18. For the period ending December 31, 2012, Licensing costs are projected to be $27,362,894 as shown on Line 3 of Schedule P-6 of SDS-18. Table 2 of Exhibit SDS-20 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 required by the Turkey Point 6 & 7 project. The majority

of the licensing expenditures are a result of the federal COLA process. This value is a combination of NNP team costs and Bechtel COLA team costs. The license and permit applications contain project specific information, assessments and studies required by various regulatory authorities to support the reviews leading to decisions on the technical, environmental and social acceptability of the project. Other licensing activities include costs associated with the SCA, USACE permits and delegated programs such as Prevention of Significant Deterioration and UIC. License and permitting costs are developed in accordance with budget and accounting guidelines and policies. Some activities are common between applications, and therefore offer opportunities to coordinate efforts and manage costs. Further, these cost estimates were compared to FPL's recent 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 2011 actual/estimated values and those projected in the May 2010 filing for the Licensing category?

A. Differences are created by the shifting NRC COLA review schedule. Some activities scheduled for 2010 were deferred into 2011 and some 2011 activities were moved into 2012.

Q. Please describe the activities in the Permitting category for the 2011 actual/estimated costs and the 2012 projected costs.

A. For the period ending December 31, 2011, Permitting costs are projected to be $2,416,877 as shown on Line 4 of Schedule AE-6 of SDS-18. For the period

ending December 31, 2012, Permitting costs are projected to be $2,420,144 as shown on Line 4 of Schedule P-6 of SDS-18. Table 3 of Exhibit SDS-20 provides a detailed breakdown of the Permitting subcategory costs, including a description of items included within each category.

Permitting fees consist of expenditures for Project Development management, public outreach/education and environmental services. Outreach is a vital process to inform stakeholders of the project and educate the public with regard to the many processes where they can be involved. The outreach activity involves hosting informational events and providing information on the project through a variety of media platforms. FPL experience has demonstrated that a proactive outreach and education approach facilitates a sharing of concerns and perspectives improving the overall project. Development costs in 2011 include two personnel: myself and a Project Manager. Environmental services relate to costs associated with supporting the non-NRC applications. Legal expenditures provide necessary support to activities for all permitting and project interactions. Legal support expenditures are necessary to support the timely preparation, submission, and review of issues associated with the project at the local, state and federal agency levels.

Q. Please describe the activities in the Engineering and Design category for the 2011 actual/estimated costs and the 2012 projected costs.

A. The Engineering and Design activities performed in 2011 and 2012 are required to support the permitting effort for the UIC well system. For the period ending December 31, 2011, Engineering and Design costs are projected to be $6,748,673 as shown on Line 5 of Schedule AE-6 of SDS-18. For the period ending December 31, 2012, Engineering and Design costs are projected to be $1,610,050 as shown on Line 5 of Schedule P-6 of SDS-18. Table 4 of Exhibit SDS-20 provides a detailed breakdown of the Engineering and Design subcategory costs, including a description of items included within each category.

Engineering and Design costs consist primarily of contract engineering and construction services necessary to develop the UIC exploratory well. The well is necessary to collect further data confirming the geology and hydrology at the site to support a properly constructed UIC well system.

Costs for participation in industry groups include the EPRI Advanced Nuclear Technology working group (with annual fees of $275,000) and the DCWG(no charge to participate in this group). The 2011 APOG fee was expensed in December 2010, and the 2012 APOG fee of $980,000 is anticipated to be paid in early 2012. These costs are necessary to obtain the benefits of membership described earlier in this testimony.

Q. Please describe the activities in the Long Lead Procurement category for the 2011 actual/estimated costs and the 2012 projected costs.

A. For the period ending December 31, 2011, Long Lead Procurement costs are projected to be $0 as shown on Line 6 of Schedule AE-6 of SDS-18. Future Long Lead Procurement costs are anticipated to be included in the Power Block Engineering and Design cost category.

Q. Please describe the activities in the Power Block Engineering and Procurement category for the 2011 actual/estimated costs and the 2012 projected costs.

A. For the period ending December 31, 2011, Power Block Engineering and Procurement costs are projected to be $0 as shown on Line 7 of Schedule AE-6 of SDS-18. For the period ending December 31, 2012, Power Block Engineering and Procurement costs are projected to be $0 as shown on Line 7 of Schedule P-6 of SDS-18.

Q. Please describe the activities in the Transmission Engineering category for the 2011 actual/estimated costs and the 2012 projected costs.

A. For the period ending December 31, 2011, Transmission Engineering expenditures are projected to be $0 as shown on Line 25 of Schedule AE-6 of SDS-18. For the period ending December 31, 2012, Transmission Engineering expenditures are projected to be $0 as shown on Line 25 of Schedule P-6 of SDS-18.

All 2011 and 2012 costs associated with Transmission planning are related to the licensing and permitting activities, and therefore are appropriately included in those categories, described above.

PROJECT COST AND FEASIBILITY

Q. What is the basis and background of the non-binding cost estimate range used by the project?

A. The project cost estimate range was initially developed in 2007 to support the Need Determination in 2008. The cost estimate was developed by reviewing the most comprehensive cost analysis available for a two unit, 1,370 MW U.S. new nuclear project and adjusting information for the Turkey Point project specific information available at the time. In 2007, FPL had not selected a specific technology nor had it completed any site specific project design or planning. Necessarily, the cost estimate range was broad and inclusive of a range of potential costs. The original cost estimate range was not based on firm contractual agreements, approved licenses and permits or a detailed project execution plan and schedule. In early 2010, FPL conducted a review of the cost estimate to reflect indicative pricing from Westinghouse/Shaw and updates to the overall project design. This review provided a revised estimate and reaffirmed that the existing cost estimate range remained valid. A table describing the results of the review is provided as Exhibit SDS-13 of my March 1, 2011 testimony in this proceeding.

Q. Please review how the FPL cost estimate process 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 2010 cost estimate range was $3,397/kW to $4,940/kW in 2010 dollars. Updating the cost estimate range to 2011 dollars, using a net 2.5% escalation rate, results in a cost estimate range of $3,482/kW to $5,063/kW. A breakeven cost analysis is developed by FPL's Resource Assessment and Planning department, and is further discussed by FPL Witness Sim. 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 in the past year that would suggest a need to revise the 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 that would indicate any revisions are necessary to the project cost estimate range.

Q. What factors impact the overall project cost estimate when time-related costs such as price escalation and carrying costs are included?

A. As one would expect, the actual cost escalation influencing the final cost of the project will be the result of macroeconomic and industry specific economic factors present during the Preparation and Construction periods. The pace of expenditure, escalation and carrying costs may be estimated to provide an understanding of their relative contribution to the overall project cost. The time-related factor most influential on the total project cost is expected to be the actual pace of expenditures experienced during the procurement and construction period. If the period is prolonged, these time-related costs will have a proportionally higher effect on the overall project cost. This is why it is critical to have a fully vetted project execution plan with high predictability in cost, schedule and project controls prior to initiating construction. A well-designed execution plan will stage major procurement expenditures to occur as late as possible without affecting the construction schedule in order to minimize carrying costs. Further, the optimal execution plan will provide for clockwork sequential execution of major project construction events to maximize efficiency of financial, material and labor resources.

Q. What is the effect on the estimated total project costs if this scenario were the actual schedule?

A. As described above, there are a number of assumptions made to arrive at this estimate. Under the current 2022/2023 in-service date schedule, and using the

2011 overnight cost estimate range, the total project cost range becomes $12.8 billion to $18.7 billion for the 2,200 MW project. The increase to the estimated total project cost is solely a result of the effect the assumed cost escalation (2.5% per year) has on expenditures that will be made later than planned in the original schedule. The actual escalation may be higher or lower than the assumption.

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

A. As discussed by FPL Witness Sim, the most current feasibility analysis affirms the cost effectiveness and benefits associated with the Turkey Point 6 & 7 project using the same approach applied in the Need Determination Proceeding for the project and the two prior NCRC filings. The analysis calculated a projected "break-even" cost for new nuclear; a cost that would result in the same life cycle costs (or cumulative present value of revenue requirements) as an alternative plan relying on natural gas combined cycle units. The analysis was conducted for seven scenarios comprised of three fuel and three emission cost scenarios. The projected break-even costs were higher than FPL's non-binding cost estimate range in six of seven scenarios. The seventh scenario, which assumed low natural gas and low CO2 costs for approximately half a century: i.e., through the year 2010, indicates a breakeven cost that is economically comparable to the high end of the cost estimate range. Recognize that if the combined cycle option were selected over the Turkey Point 6 & 7 project based on equivalent economics, that

selection would not deliver the qualitative benefits of fuel diversity, energy security and zero green house gas emissions that are offered by new nuclear generation.

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 Sim discusses the economic factors and I discuss the non-economic factors.

Q. What non-economic factors affect the projects 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 reasonable cost and supportive state and federal energy policy.

Significant federal, state and local approvals are required to allow for the construction and operation of the project. Due diligence activities and ongoing agency reviews continue to affirm the long-term feasibility of the project. The intense review process currently underway will result in each agency identifying its perspective on the project and describing conditions upon which the project approvals may be granted. While the review process has taken longer than originally anticipated compared to our experience with Turkey Point Unit 5 and other recent development activity, the process is proceeding substantively as expected.

Financing will be determined as the project proceeds through approvals to construction. Activity on other U.S. projects shows a strong interest in the investment community to participate in new nuclear financing. For instance, Municipal Electric Authority of Georgia conducted a successful solicitation for $2.7 billion of project bonds for its share of the Vogtle Units 3 & 4 AP1000 project. More interest was displayed than was required for the solicitation and the net Build America Bonds Rate for the three categories of bonds were 4.33%, 4.31% and 4.59%, respectively. However, the impacts of the nuclear events in Japan may influence the financial community's view on financing new nuclear projects.

As discussed earlier in this testimony, state and federal energy policy continues to be supportive of new nuclear generation for a host of reasons. The high reliability, low and stable cost and zero greenhouse gas emission profile of the technology is highly compatible with key energy policy objectives.

Q. How are the impacts to customers recognized and addressed in a decision to continue or stop the project?

A. Customer impacts resulting from project decisions are addressed inherently in the initiating Need Order and the annual economic feasibility analysis accomplished as a part of the NCRC docket. The initiating Need Order takes into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply

reliability, and whether the plant is the most cost-effective alternative. Each year the feasibility analysis addresses changes in system and project-related factors to determine if the project remains cost-effective for customers. The analysis looks at a range of potential future economic and regulatory scenarios to ensure the project viability is robustly demonstrated.

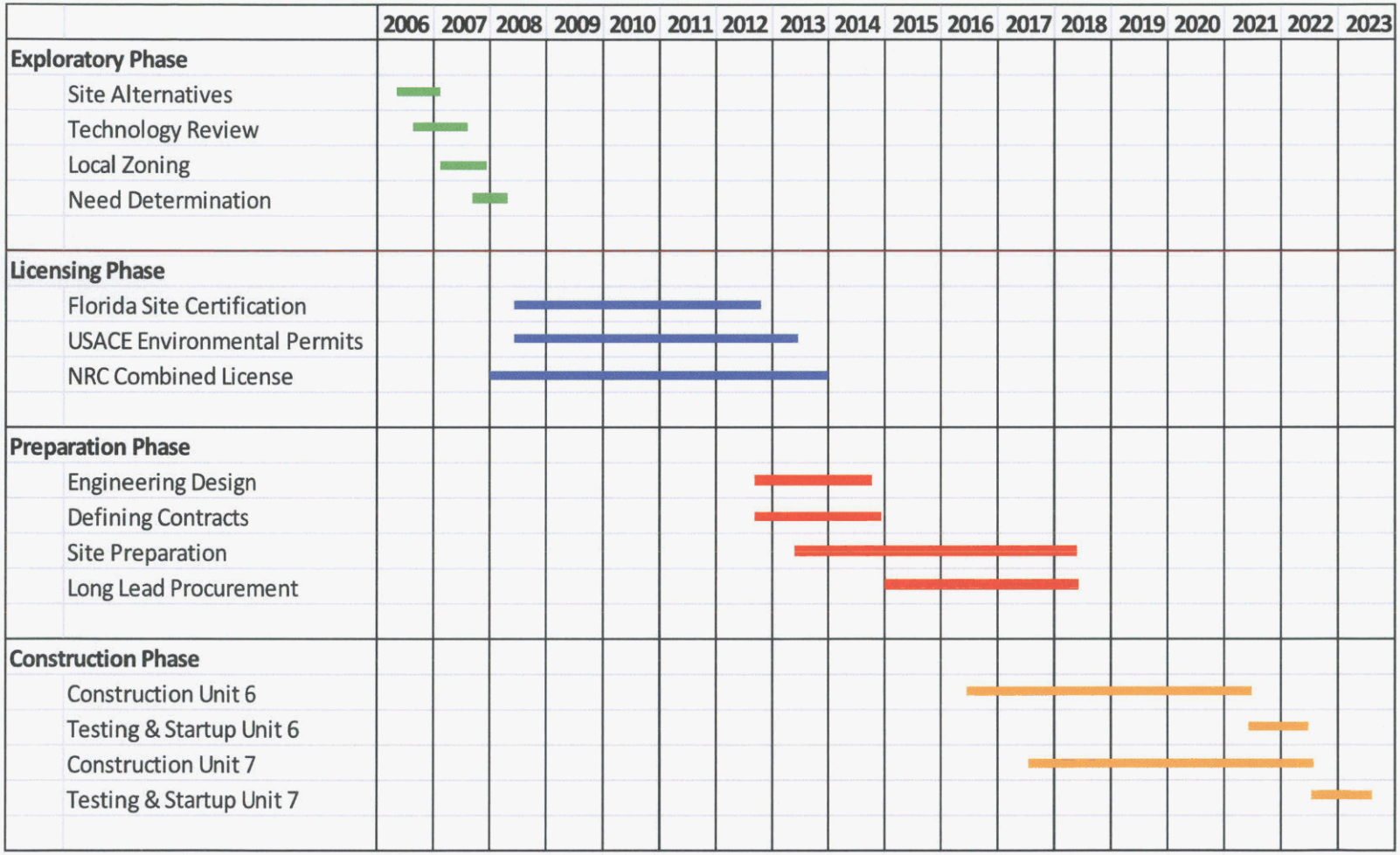
Moreover, the management of project risk using a stepwise decision making process inherently recognizes the impacts to customers in each decision. For example, the decision to manage project risk by deferring design and procurement activities recognizes an outcome of the decision is the postponement of the benefits offered by new nuclear generation for some undetermined amount of time. However, the long term incremental benefit is weighed against the alternative of proceeding at this stage. Under the latter strategy, to proceed with those activities now assumes cost and schedule risks that could severely degrade or negate the incremental benefits of delivering the project a year or two earlier. Further, assuming unmitigated cost and schedule risk early in the project jeopardizes the project as a whole, potentially precluding the delivery of any of the benefits of new nuclear generation if the option is not created.

Q. Does this conclude your direct testimony?

A. Yes.

SDS-15

Turkey Point 6 & 7 New Nuclear Deployment Schedule



Docket No. 110009-EI
Graphic of Phases
Exhibit SDS-15, Page 1 of 1

SDS-20

Table 1. 2011 – 2012 Preconstruction Costs

Category	2011 Actual / Estimated Costs	2012 Projected Costs
Licensing	$28,789,986	$27,362,894
Permitting	$2,416,877	$2,420,144
Engineering & Design	$6,748,673	$1,610,050
Long Lead Procurement	$0	$0
Power Block Engineering & Procurement	$0	$0
Total Preconstruction Costs	**$37,955,536**	**$31,393,088**
Transmission	$0	$0
Total Preconstruction Costs & Transmission	**$37,955,536**	**$31,393,088**

Table 2. 2011 – 2012 Licensing Costs

Category	2011 Actual / Estimated Costs	2012 Projected Costs
NNP Team Costs – NNP FPL payroll and expenses, FPL Project Team Facilities, FPL Engineering, FPL Licensing	$4,738,708	$7,661,584
Application Production – COLA/SCA Contractor, Project A&E, NRC and DCWG fees;	$10,485,522	$8,136,713
SCA Oversight	$771,157	$0
SCA Subcontractors:		
• Transmission	$680,179	$720,000
• Environmental	$723,402	$441,965
• Underground Injection	$96,000	$38,000
SCA Total	$2,270,739	$1,199,965
Environmental Services – FPL payroll and expenses, External support expenses	$3,523,122	$2,757,300
Power Systems – FPL payroll and expenses, System studies, licensing and permitting support and design activities	$604,199	$680,266
Licensing Legal – FPL payroll and expenses, External Legal Services, Expert Witnesses	$3,210,266	$3,588,405
• Regulatory Affairs	$509,755	$529,124
• Regulatory Accounting	$198,651	$188,548
Total Regulatory Support	$708,405	$717,672
Contingency	$3,249,024	$2,620,989
Total Licensing	**$28,789,986**	**$27,362,894**

Table 3. 2011 – 2012 Permitting Costs

Category	2011 Actual / Estimated Costs	2012 Projected Costs
Marketing and Communications – FPL payroll and expenses, External Media Support, Surveys, and Outreach Support, Graphics and Collateral materials	$292,681	$328,342
Development – FPL payroll and expenses, various studies	$577,293	$572,590
Legal – FPL payroll and expenses, external support for permitting legal specialists	$265,215	$193,500
Contingency	$1,281,688	$1,325,711
Total Permitting	**$2,416,877**	**$2,420,144**

Table 4. 2011 – 2012 Engineering and Design Costs

Category	2011 Actual / Estimated Costs	2012 Projected Costs
Engineering & Construction Team	$7,000	$7,000
Underground Injection Controls Wells	$6,297,442	$0
APOG Membership Participation	$0	$980,000
EPRI Advanced Nuclear Technology	$275,000	$275,000
FEMA Fees	$169,231	$348,050
Total Engineering and Design	**$6,748,673**	**$1,610,050**