BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 090009-EI
FLORIDA POWER & LIGHT COMPANY

MAY 1, 2009

IN RE: NUCLEAR POWER PLANT COST RECOVERY
FOR THE YEARS ENDING
DECEMBER 2009 AND 2010

TESTIMONY & EXHIBITS OF:

STEVEN D. SCROGGS

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FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF STEVEN D. SCROGGS

DOCKET NO. 090009-EI

MAY 1, 2009

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:

- SDS-1, which consists of Appendix II containing the Nuclear Filing Requirements Schedules (NFRs) for Turkey Point 6 & 7 Pre-Construction costs. Page 2 of Appendix II contains a table of contents listing the NFRs sponsored by FPL witness Powers, FPL witness Sim, and by me, respectively.

- SDS-2, which consists of Appendix III containing the NFRs that provide the Site Selection costs for Turkey Point 6 & 7 Project. Page 2 of Appendix III contains a table of contents listing the NFRs sponsored by FPL witness Powers and by me, respectively.
- SDS-3, which consists of 2008 Nuclear Industry Group products and activities.
- SDS-4, which consists of summary tables presenting the 2009 actual/estimated and 2010 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 meet the objectives of delivering reliable, cost-effective and fuel diverse generation to FPL customers under the earliest practical deployment schedule. My testimony will provide insight into how project activities are managed and the issues influencing key decisions that will affect the nature, cost and pace of the project. I will also describe the projected expenditures for 2009 and 2010 that will allow FPL to produce and defend applications for the required licenses and permits and otherwise enable steps necessary to maintain the project schedule.

Q. Please summarize your testimony.

A. FPL applies an adaptive and disciplined management approach to the complex challenge of deploying new nuclear generation. The primary focus of the

project at present is the completion and defense of license and permitting applications necessary for project approval and construction by a multi-discipline team of FPL employees, contractors and advisers. FPL has significant experience in these activities at the local, state and federal levels. Necessarily, the project relies on time-tested project reporting and controls processes to identify, quantify and manage risk to project schedule, cost and quality. However, the Turkey Point 6 & 7 project presents a host of unique challenges due to the nature of new nuclear deployment in the U.S. This testimony describes these issues and the key decisions that have been made, or will be made, to maintain progress toward delivering the benefits of new nuclear generation to FPL customers without taking unnecessary cost or schedule risks. My testimony summarizes the actual/estimated Pre-construction costs planned for 2009 and the projected Pre-construction costs estimated for 2010. Moreover, I will discuss the rationale for these expenditures and how they will be managed going forward to meet project objectives.

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, stepwise decision making process. This involves continuous monitoring of the issues affecting the pace and feasibility of the Turkey Point 6 & 7 project.

Opportunities will be presented as the project unfolds to change the pace of the project in response to evolving issues and factors. This allows FPL to take advantage of events that offer opportunities to accelerate schedule or lock in favorable terms for materials or services. Alternately, FPL can slow the project down or take an "off ramp", halting or limiting project expenditures for defined periods of time to manage cost risk. The nature of power generation development requires FPL to monitor evolving issues and control the pace of the Turkey Point 6 & 7 project in order to execute the project efficiently and manage the risks presented as the project proceeds.

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 broad span of specific experience in the development, design, construction and licensing of nuclear generation. There is also a significant volume of information being generated as issues unique to new nuclear generation deployment are identified, assessed 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 that applies the best resources to each issue while maintaining transparent and open communications. The project organization relies on two principal organizations that are jointly responsible for the integrated execution of the project. Martin Gettler leads the New Nuclear Plant 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 state FPSC regulatory issues. Each organization is formed from FPL business units with specific, recent success in the licensing, NRC re-licensing and permitting of eleven power generation facilities in Florida in the past seven years and complemented with our national operating experience with renewable, natural gas and nuclear generation assets.

FPL also gave careful consideration to how it contracted for support of the many license and permit applications. FPL conducted a competitive bid for engineering services to prepare and support the NRC Combined Operating License Application (COLA). Bechtel was selected as the best candidate for performance of that scope of work. Recognizing that the body of work related to the COLA would need to be consistent with the information used in other project permit applications, FPL then directed Bechtel to manage the efforts of all other subcontractors supporting the completion of license and permit applications. This aligns the activities and base information used in all permits through a single contracting structure to maximize consistency and communication between the various vendors.

Q. Please expand on the concept of "off-ramps" and how the pace of the Turkey Point 6 & 7 project is determined based on key decisions resulting from the continued assessment of issues that may impact the project.

A. The project team manages 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 series of routine tools and reports. If an assessment indicates the potential for a considerable cost or schedule impact, mitigation actions are identified that are designed to eliminate, reduce, defer or otherwise manage the impact. If the magnitude of the impact is such that the cost or schedule impact materially changes the feasibility of the project or significantly increases risk, a decision must be made as to whether such impact is acceptable in light of all current information. Options available include continuing with a modified budget and/or schedule along with available mitigation actions, or halt the project temporarily while the impact issue is further assessed or resolved. The option of slowing or halting the project in response to significant events or uncertainties, although it would postpone delivery of Turkey Point 6 & 7's benefits, offers a high level of exposure control for FPL and its customers. Such decisions would also need to address how FPL system capacity and reliability needs would be satisfied if delivery were to be delayed.

PROCESS AND RISK MANAGEMENT

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 fidelity 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 2, 2009 True-up filing.

Q. How are these tools reviewed over time?

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 affect improvement. Effectiveness of project control processes is also reviewed as a part of the project management reviews and audits.

Q. What audit 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 audits are conducted to ensure that 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 that are 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. Please provide examples of the types of improvement opportunities created by these audits, and FPL's process for incorporating these improvements into existing processes.

A. FPL maintains a culture promoting continuous process improvement to improve operations and increase productivity. The project team employs a range of tools and practices to improve the quality and timeliness of work. Examples of these continuous improvement practices are the process reviews held with work teams (e.g., FPL employees and vendor staff) and self auditing checklists generated for repetitive processes such as travel and routine expenses. In addition the project team is provided periodic training in various subject areas to continuously refresh, update and introduce the latest information available to maintain the project team at the highest technical and commercial levels available industry wide. The following list provides

examples of the continuous improvement project team process reviews that were completed in 2008-2009:

- Project Control Guidelines (issued March 21, 2008)
- General Administrative Controls Presentation (i.e., Employee Expense Reports; Other Local Disbursements and Payroll);
- Updating Monthly Cost Report Process
- Management Meeting (i.e., 10-16-08) Process Improvements
- Ongoing review and optimization of project team reports
- Ongoing review and optimization of project team Instructions & Forms

Q. What other activities are employed by the project to address industry issues that may impact 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 and members of Congress on energy policy matters related to nuclear development, including the NP 2010 program that has provided much of the foundational work supporting the prospects of new nuclear generation.

FPL also participates in four specific groups comprised of new nuclear industry owners and design vendor(s). The collective purpose of these groups is to identify and resolve issues that may impact the licensing, design, construction, operation and maintenance of the AP-1000 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 that face 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. Exhibit SDS-3 provides a summary of the activities associated with each group in 2008.

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 have been spent on the development of the detailed studies and analyses required to facilitate federal, state and local reviews of the proposed project and, if appropriate, grant the needed permits, approvals and authorizations for construction and operation. Additional expenditures have allowed the project to undertake the initial engineering and commercial steps in the development of an execution plan for plant deployment. FPL has used competitive bidding for the majority of total project expenditures and used single or sole source procurement when appropriate.

Q. What key procurement activities are being addressed by the project in 2009 and 2010?

A. Procurement activities in 2009 and 2010 will be related to two principal areas. The licensing and permitting process requires support from 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. The scope and expenditures associated with these activities have been estimated in the 2009 actual/estimated and 2010 projected costs, but will not be fully known until the review process is complete.

FPL must also initiate the detailed site-specific design, preliminary engineering and procurement activities necessary to meet the project schedule. An agreement may be required with the Westinghouse/Shaw consortium for Engineering and Procurement activities associated with the AP-1000 nuclear plant design. The negotiations supporting such agreements have been underway since early 2008 and have made significant progress. Currently, there are ongoing discussions on contract terms, project schedule, price and the allocation of risk between the multiple parties. Additionally, the acceptance reviews associated with the NRC COLA and other applications will provide schedule information that will be influential on the timing of any Engineering and Procurement (EP) Contract commitments. The issues influencing this process will be more fully discussed in the Issues and Key Decisions portion of this testimony.

ISSUES AND KEY DECISIONS

Q. What are the primary issues that are being monitored for their impact on the Turkey Point 6 & 7 project?

A. Due to the magnitude and long term schedule associated with the Turkey Point 6 & 7 project, certain issues have the potential to create challenges and opportunities for the execution of the project. There are three areas that are being monitored. Foremost on all of our minds is the recent economic downturn, which has the potential to directly and indirectly impact the project in several ways as discussed below. Additionally, national and international nuclear industry activity affects the project in multiple ways, primarily influencing the commercial negotiations with Westinghouse/Shaw. Finally, the ongoing political and regulatory environment will continue to significantly influence the project.

Q. What issues are presented by the recent economic downturn on markets related to power generation projects and energy policy in general?

A. The Turkey Point 6 & 7 project is a long term investment to meet the electric reliability, environmental and economic needs of FPL's customers. These needs transcend, and in some ways are heightened by, short term economic cycles. Nonetheless, the practical matter of making progress towards meeting those needs, while maintaining a balance of risk and expenditure that is appropriate for the current environment, is a challenge. As noted earlier,

FPL's approach for this project is adaptive and disciplined. The recent downturn has affected the local Florida, national and international economies.

The effect of the downturn on the Florida economy is reflected in the reduced demand projections for FPL in the near term. Long term projections, that span economic cycles, remain consistent with FPL's experience projecting a long term growth rate of 2.1%. FPL's Ten Year Power Plant Siting Plan, provided April 1, 2009 identifies how FPL is adapting its long term generation plan to incorporate current projections. That plan maintains Turkey Point 6 & 7 in the plan due to the economic, reliability and fuel diversity benefits offered. FPL witness Sim provides a more detailed discussion of the impact of current economics on the feasibility of the Turkey Point 6 & 7 project.

The economic downturn also affects the supply chain that will provide materials, equipment and services to the project. Price indices for materials and labor had experienced significant increases in the years 2005 – 2008. Current commodity indices trends show considerable decreases in many of the base materials used for plant construction (e.g., steel, copper, aluminum, oil). However other base materials such as concrete have remained flat while finished engineered products such as large pumps, large valves, heat exchanger and transformers have shown some minor easing of pricing but not a significant trend. It remains to be seen if these price index decreases will be fully realized as reductions in the estimated price of goods and services that

make up the project cost estimate. Other market forces, such as demand from other international and U.S. nuclear projects keep the qualified nuclear supply chain highly utilized, maintaining elevated price levels from these suppliers. Changes in projects that precede Turkey Point 6 & 7, or changes to the number or capabilities of qualified vendors in the nuclear supply chain, will impact the pricing that can be obtained for key components and services. Access to capital and the interest rates that will be charged for the project financing will also be impacted by the current economic situation. Regulatory certainty demonstrated in federal and state licensing, permitting and cost recovery processes will enable access to the most competitive financing alternatives.

The current economic situation also puts pressure on the achievement of fuel diversity and environmental objectives at state, national and international levels. Near term economic cycles may change the pace at which long term solutions to fuel diversity, price variability and climate change are pursued. Deferral of new nuclear capacity will prolong the reliance on fossil fuels. For Florida, such a deferral would increase the exposure to fuel supply reliability and price volatility, and maintain fossil fuel production and associated greenhouse gases. On a national and international level, older coal and oil fired plants would remain in service preventing a meaningful reduction in greenhouse gas production and maintaining a reliance on these fuels affecting fuel supply and availability in the market.

Q. What opportunities does FPL have to respond to the impact of these national and international supply issues?

A. The primary contracts that will influence the cost and schedule of the project will be the EP contract and subsequent Construction contract(s). FPL has made no commitments to these contracts at this stage and is negotiating the scope, schedule, terms and costs associated with the EP contract now. FPL's primary means of responding to the impact created by the economic downturn is to ensure the opportunities and risks created by the current economic situation are adequately included in any agreements executed for the project and as much competition as possible is created for each scope of work. This means ensuring that the project is obtaining the benefits of recent material cost reductions where possible and including protective language to address potential future scenarios in a balanced manner. It is important that contracts entered into at the beginning of the long design and construction process maintain a balance of cost effectiveness and risk mitigation throughout the entire project timeline. Additionally, the economic downturn reinforces the value of creating competition for bids where possible. With a decrease in overall economic activity, engineering services and construction companies may be more inclined to reduce price or accept risk that would not otherwise be a part of their business model in a more robust economy.

Q. What energy policy activities under consideration might impact the Turkey Point 6 & 7 project?

A. Generation portfolio standards that promote clean energy additions are under consideration in many states, including Florida, as well as potentially on the national level. Recognition of nuclear's potential to help the state and nation achieve meaningful greenhouse gas reductions would further support nuclear generation and the Turkey Point 6 & 7 project. Additionally, the Obama administration is re-evaluating options for fulfilling the government's obligation to provide long term storage of spent nuclear fuel.

At the state level, a number of draft bills have been considered in the State legislatures that propose changes to the current Nuclear Cost Recovery (NCR) rule. Should any legislation be passed that materially affects the regulatory compact upon which the project is based, FPL would reevaluate the viability of the project.

Q. What current issues or challenges to the new Turkey Point nuclear units project have arisen, and what are the potential impacts to the project schedule and cost estimates?

A. The following summarizes the current identified major problems or challenges and potential impacts to project schedule and cost estimates.

Legislation – A number of draft bills propose significant changes from the current NCR rule have been under considered in the State legislature. This activity has given FPL concern and indicates we should proceed cautiously.

Impacts of revised NCR may include increased project costs, increased risk of recovery or both.

Commercial Negotiations - FPL is negotiating with Westinghouse/Shaw regarding the EP scope of supply and corresponding payment schedule. Due to the unique contracting challenges presented by new nuclear deployment and the current market, FPL may not obtain terms, conditions, scope and payment schedules that represent an acceptable expenditure plan given the economic, legislative, regulatory environment. Additionally, due to the volatility of commodity prices, the contract pricing is sensitive to timing and can increase or decrease. Impacts to schedule could range from executing an EP scope of supply that supports the current schedule to a reduced scope of supply that would result in increased risk to the project schedule. Impacts to cost could range from an EP scope of supply that is below the current cost estimate range to one that is above the cost estimate range provided in prior filings. Tradeoffs between the competing objectives of low expenditures and maintaining schedule will be considered. In other words, if expenditures above current estimates are necessary to maintain schedule FPL would evaluate whether or not those expenditures are warranted. A choice to increase near term expenditures may or may not increase total project delivered cost. Alternately, a lower early year spend may result in accepting a schedule delay; however, that schedule delay may or may not increase the total project delivered cost.

Permitting Timeline - The state Power Plant Siting Act provides for a statutory timeline for review and decision of an application. This timeline is expected to be completed prior to either of the federal activities. State Site Certification and any necessary Army Corps of Engineers wetland permits would be required before the start of any site-clearing or construction activities. The NRC Combined Operating License (or a Limited Work Authorization) would be required before the start of any NRC jurisdictional construction (Nuclear Safety related - plant basemat and above). The federal permits and licenses (NRC and Army Corps of Engineers) are evaluated on a non-statutory timeline. However, once the NRC COLA is docketed, a non-binding schedule is produced that provides an estimate of when the milestones in the licensing process would be completed. Beyond schedules there is the opportunity for opposition during the application review processes that could result in delay. Therefore, there is uncertainty as to when these permits and licenses would be granted, but that uncertainty begins to decrease as the review proceeds. It is difficult then to determine whether site preparation activities (site clearing, access roads, preliminary fill activities) can be initiated in a timeframe that supports the current projected schedule. Impacts may include a shift in schedule and/or increased costs necessary to mobilize resources to recover schedule. The state Site Certification process includes a review of Land Use consistency that will be provided by Miami Dade County. Should a determination be made that the proposed project is inconsistent the

project schedule could be impacted. Additionally, conditions of approval to any of these licenses or permits may result in additional costs or schedule impact.

Q. What mitigation strategies are being developed or considered for each challenge described above?

A. The following discusses mitigation strategies:

Legislation – FPL monitors and assesses draft legislation and considers its potential impact upon ongoing projects.

Commercial Negotiations - FPL is monitoring the progress of commercial negotiations for projects that precede Turkey Point 6 & 7 and incorporating the input that can be discerned from publicly available information. FPL has developed a negotiation team that is working through EP scope, terms and conditions, schedules and cost issues with Westinghouse/Shaw. This team is communicating routinely with senior management to ensure guidance from the highest levels of the company is available to support this effort.

Permitting Timeline - FPL is monitoring the progress of licensing and permitting activities for projects that precede Turkey Point 6 & 7 and incorporating feedback from these projects that reduce the need for reviewing agencies to request additional information. FPL is also routinely engaging affected agencies and other stakeholders in discussions regarding the project

design in an effort to put forth the most complete applications, reducing likelihood of unanticipated delays in the review process.

Q. What portions of the project are directly impacted by the current economic climate and what specific steps has FPL taken, or is FPL considering based on this impact?

A. The economic downturn presents opportunities and challenges for the execution of the design, engineering and construction of the project. The value of obtaining the licenses and permits necessary to construct and operate a new nuclear plant has not been impacted so far, and in some ways may be enhanced. Therefore, FPL intends to maintain activities that support progress on the licensing and permitting of the project. These activities represent expenditures with lasting value, providing an option to initiate the construction at the most opportune time following receipt of project approvals.

Recognizing market trends, FPL was able to defer expenditures planned for late 2008 (approximately $35 million) until later in the project. Similarly, FPL analyzed current 2009 and 2010 expenditures for opportunities that may warrant a change to the planned expenditures in the Power Block Engineering and Procurement area. FPL determined that the above issues, collectively, indicate that the project should defer a large percentage of the expenditures on the Engineering and Procurement contract ("EP expenditures", identified as $70.787 million in the Power Block Engineering and Procurement, line 7, of

P-6, Appendix II of the May 1, 2008 filing) while monitoring progress of the three key issues; State legislation, commercial negotiations with Westinghouse/Shaw and the licensing and permitting timeline. This decision allows time to pursue activities that will increase clarity on key uncertainties that impact the cost and schedule of the project prior to irreversible expenditures for the EP contract.

The decision to slow project EP expenditures does place pressure on the project schedule as it increases the risk that FPL will have started engineering and procurement activities in time to meet the target commercial operation dates of 2018 and 2020. FPL has evaluated that the proposed approach conservatively manages the EP expenditures during a time when significant information will be developed that will inform the pace and direction of the project. A more complete picture of all three areas will be available in the fourth quarter of 2009. It is anticipated that legislative direction will be better understood, the impacts of the economic downturn on commercial issues will be further clarified. Importantly the acceptance reviews and initial interactions on federal, state and local applications will be complete providing the project with greater schedule clarity and certainty. During the course of 2009, FPL will also complete certain pre-construction planning activities that will allow a better understanding of the construction timeline that follows licensing and permitting. At that time, FPL will be better positioned to determine the schedule of EP expenditures that best supports the overall

project schedule, including the fabrication of critical long lead components. Should FPL require additional funds not included in this filing, these funds will be identified in the 2009 true-up filing in March 2010.

PROJECT ACTIVITIES

Q. What are the major activities of the Turkey Point 6 & 7 project for 2009 and 2010?

A. The major project activities for the project in 2009 are related to the completion and support of project license and permit applications at the local, state and federal level. This involves over 100 engineers, environmental specialists and other subject matter experts conducting numerous studies and analyses to support the regulatory requirements for review by the various licensing agencies. The studies involve field work, data analysis, modeling, and consultation with a range of agencies. Bechtel Power Corporation manages the primary contract for the production of the NRC COLA and provides oversight services for the selected subcontractors developing the U.S. Army Corps of Engineers Permit Application the Site Certification Application and other permit applications. FPL obtains legal advisory services through selected national, state and local firms with expertise in these areas. Westinghouse/Shaw is under contract to provide the necessary support to FPL and Bechtel in the preparation of the COLA.

Additionally, engineering and design activities are underway to support construction planning and logistics. These activities are focused on determining the sequence of construction given the regulatory, engineering and logistical constraints. Black & Veatch/Zachry provides these services under a direct contract to FPL.

Commercial negotiations with Westinghouse/Shaw continue so as to define the terms, scope, schedule and price for project management, engineering and procurement services needed to support the next phase of the project. Upon reaching an agreement that maintains an appropriate risk exposure for FPL customers, the contract would provide project planning, management, procurement and detailed design engineering in 2009 and 2010.

Q. What are the key milestones in the Turkey Point 6 & 7 project schedule for 2009 and 2010?

A. The primary project milestones for 2009 are related to the submittal and docketing/acceptance of the license and permit applications by their respective regulatory authorities.

The COLA will be reviewed upon submittal for acceptability. If acceptable to the NRC, the application is docketed and a schedule for review is produced. Key activities in the review process include public notices to inform the public about its opportunities to participate in the licensing process, environmental scoping meetings where input is solicited to inform the NRC on the issues that should be considered in their review and the initial steps in the environmental

and safety review processes. A major milestone in 2010 is the expected publication of a draft Environmental Impact Statement (EIS). The Army Corps of Engineers wetland permit applications will utilize the NRC produced EIS as the basis of their review and will participate in the NRC EIS process as a cooperating agency, following the NRC provided schedule.

The Power Plant Siting Act (PPSA) delineates a statutory schedule by which the Site Certification Application (SCA) is processed. This process begins with a review of the submitted application to determine if it is complete, with potential iterative cycles of questions and responses to obtain completeness. Following completeness, public meetings and other agency activities are directed at the production of various reports, culminating in the Florida Department of Environmental Protection (FDEP) Project Analysis Report. A certification hearing is then held resulting in a recommendation by the Administrative Law Judge to the Siting Board. In parallel to the SCA review, a Land Use proceeding is conducted culminating in a Land Use hearing for the project. All PPSA activities are expected to be complete by the end of 2010.

FPL will be pursuing engineering and construction planning activities that will help define the sequence and logistical requirements for the construction period. This body of work will allow FPL to develop a refined project construction schedule that will be combined with the expected licensing and

permitting timeline to better establish the overall project schedule. As indicated before, FPL will continue to pursue commercial negotiations to obtain a refined cost estimate range for the project.

Q. How does the current project schedule compare to the Milestone Schedule provided as Exhibit SDS-5 to your testimony in FPL's Need Determination Filing?

A. The original schedule for the application submittals assumed an aggressive fifteen (15) month schedule to prepare and submit the applications. Steady progress was made toward this objective; however, several external events occurred to cause project management to reevaluate this schedule. Changes were scheduled to occur in late 2008 and early 2009 to both the Design Certification Document for the AP-1000 and the reference COLA for the AP-1000 (application submitted by TVA Bellefonte, i.e., the reference COLA). Also, FPL learned the NRC had asked for additional information on geological issues at the Progress Energy Levy site that would be similar at the Turkey Point site. In order to preserve the projected review timeline of the FPL COLA it is important that these changes and requests for additional information are incorporated into the FPL COLA prior to submission, as opposed to filing on the original schedule date and supplying supplemental information at a later time. The deferral also allowed FPL to increase the robustness of its outreach related to the siting of associated transmission facilities. The net result of the decision changed the schedule for submission of the applications from March 2009 to June 2009.

The impact of this three month shift on the Commercial Operation Date (COD) is difficult to determine at this stage. However, it is certain that the delay of three months to incorporate the information prior to submission will reduce the requests for additional information by the NRC upon submission, and will avoid disrupting the NRC review process with post-submittal supplements on these topics. Given the evolving nature of the overall project schedule, it is not possible to determine if this schedule change will materially affect the target COD for either unit or if it would be the only factor in any such delay.

PROJECT COST AND FEASIBILITY

Q. Has FPL made any changes or revisions to the cost estimate range for the project?

A. No change has been made to the overall project cost estimate range provided in the Need Determination filing. However, considerable work is underway to develop the basis for a revision to the cost estimate range. As described above, negotiations continue with the primary vendors to determine the price of the EP contract portion of the total project. FPL is approaching the contracting process by engaging in EP contract negotiations, allowing the construction contract negotiations to await completion of the detailed design, thus allowing for a more certain construction cost estimate. Additionally, FPL is undertaking significant design engineering activities for the

surrounding site and transmission facilities that will result in refined costs in these areas once project certification is obtained and engineering, procurement and construction estimates can be developed.

Q. Please provide an update of the analysis of the transmission facilities needed to interconnect and integrate Turkey Point 6 & 7 to the transmission grid.

A. The latest system planning studies show that the following new transmission lines will be needed: two new 500-kV transmission lines between the proposed Clear Sky substation on the Turkey Point site and the existing Levee substation in northern Miami-Dade County; a new 230-kV transmission line between the proposed Clear Sky substation and the existing Pennsuco substation in northern Miami-Dade County; a new 230-kV transmission line between the proposed Clear Sky substation and the existing Turkey Point substation which is also within FPL's Turkey Point property; and a 230-kV transmission line connecting the proposed Clear Sky substation to the Davis substation in southeast Miami-Dade County and the existing Miami substation in downtown Miami. In addition, improvements or expansions will be required at the Turkey Point, Davis, Miami, Levee, Pennsuco, Gratigny, Andytown and Flagami substations. Ampacity upgrades (increases to the electric current carrying capability) of several existing transmission lines and breaker replacements at several substations will also be required.

Q. What are the most current Turkey Point 6 & 7 economic 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. The analysis calculated a projected "break-even" cost for new nuclear; a cost that would result in the same lifecycle costs (or cumulative present value of revenue requirements (CPVRR)) as an alternative plan that relied on natural gas combined cycle units. The analysis was conducted for nine 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 8 of 9 scenarios. In the 9th scenario, the projected break even cost was at the high (or favorable) end of the non-binding cost estimate range.

PRE-CONSTRUCTION COST REQUEST

Q. How are the 2009 actual/estimated costs and the 2010 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 2009 actual/estimated and 2010 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 rates being charged are consistent with FPL 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 2009 actual/estimated and the 2010 projected costs presented in this filing.

A. The $45.6 million of expenditures that are estimated for 2009 are primarily related to the pursuit of licenses and permits for the project. Approximately 82% of all 2009 costs provide for the FPL staff and contractor support necessary to produce, support and defend the various applications that will be completed in June 2009 and enter a review period with the relevant agencies. The balance of 2009 costs are estimated to be expended in engineering and design activities that will help develop information necessary to create a detailed project construction schedule and develop bid packages for specific scopes of pre-construction work necessary to maintain project schedule.

In 2010 it is projected that $90.5 million of expenditures will be incurred to support the continued review of the project applications and conduct pre-construction engineering and design activities. Support of the licensing and permitting activities will require approximately the same amount in 2010 as in 2009, however the engineering and design activities will increase representing approximately 64% of the 2010 projected budget.

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

A. As discussed previously, the 2009 and 2010 budgets are based on estimates of what will be required. Licensing and permitting support will take the form of subject matter expertise, studies and analyses that agencies will require to complete application reviews. While FPL will submit comprehensive applications that meet the respective standards, experience indicates that additional information may be requested. Budgets for this information have been developed and included. Depending on the review process, the actual costs may be lower or higher than provided for in the project budget. Similarly, licensing and permitting expenditures in 2010 may be lower or higher than estimated.

Engineering and design expenditures will provide for the development of detailed preconstruction information that will support the project planning and procurement activities in subsequent phases. Resolution of key issues and uncertainties will determine if the planned expenditures are appropriate for any revisions to schedule that result. Information may be developed that would warrant an increase or decrease in these expenditures.

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

A. Schedule AE-6 of Appendix II presents the 2009 actual/estimated costs in the following categories: Licensing ($35,436,131); Permitting ($1,951,150); Engineering & Design ($8,231,488); Long Lead Procurement ($0); Power Block Engineering & Procurement ($21,893); and Transmission Engineering

($0). Schedule P-6 of Appendix II presents the 2010 projected costs in the following categories: Licensing ($29,778,705); Permitting ($2,703,151); Engineering & Design ($58,025,409); Long Lead Procurement ($0); Power Block Engineering & Procurement ($13,750); and Transmission Engineering ($1,209,600). Table 1 of Exhibit SDS-4 provides a summary of the actual/estimated 2009 and projected 2010 Preconstruction costs. The descriptions in the Exhibit SDS-4 tables are illustrative and not all inclusive.

Q. What major differences are noted for the 2009 and 2010 project budget when compared to FPL's prior filings?

A. The primary difference is related to FPL's decision to defer expenditures associated with an EP contract. In light of the key issues and uncertainties described earlier in this testimony, FPL has chosen not to engage in a committed price contract for major equipment and design activities. This results in reducing the 2009 actual/estimated expenditures approximately $64 million less than projected in the May 2008 filing.

Q. Please describe the activities included in the Licensing category for the 2009 actual/estimated costs and the 2010 projected costs.

A. For the period ending December 31, 2009, Licensing costs are projected to be $35,436,131 as shown on Line 3 of Schedule AE-6 of Appendix II. For the period ending December 31, 2010, Licensing costs are projected to be $29,778,705 as shown on Line 3 of Schedule P-6 of Appendix II. Table 2 of Exhibit SDS-4 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 develop 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. Costs for participation in the NuStart Consortium (with 2009 membership fees of $1.8 million) are included as they are necessary to support the COLA activity. 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, Army Corps of Engineers permits and delegated programs such as Air and Underground Injection Control. License and permitting costs are developed in accordance with budget and accounting guidelines and policies. These permit and license applications contain project specific information, assessments and studies that are required by various regulatory authorities to support the reviews leading to decisions on the technical, environmental and social acceptability of the project. 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 2009 actual/estimated values and those projected in the May 2008 filing for the Licensing category?

A. The differences in this category are a result of the project decision to shift the application submittal dates later by three months and incur additional costs associated with including information requested by the NRC upon review of the Progress Levy 1 & 2 project COLA. The information requested is applicable to Turkey Point 6 & 7 COLA and is necessary in order for FPL to submit a complete application. Due to the schedule change, certain costs were not incurred in 2008 actuals, providing an offset on a total project cost basis to these increases of approximately $4 million that was budgeted in 2008, but deferred into 2009.

Q. Please describe the activities in the Permitting category for the 2009 actual/estimated costs and the 2010 projected costs.

A. For the period ending December 31, 2009, Permitting costs are projected to be $1,951,150 as shown on Line 4 of Schedule AE-6 of Appendix II. For the period ending December 31, 2010, Permitting costs are projected to be $2,703,151 as shown on Line 4 of Schedule P-6 of Appendix II. Table 3 of Exhibit SDS-4 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 and public outreach/education. Marketing and Communications department supports the project by ensuring that the project information is prepared,

reviewed and available for distribution to media, customers and key stakeholders. 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 a proactive outreach and education approach facilitates a sharing of concerns and perspectives improving the overall project. Expenses in this category include personnel dedicated to supporting the many project outreach activities, external contractors who provide specific services (e.g., graphic arts, polling, or other media services), and printing of mailing and collateral materials. Development costs in 2009 include three personnel: myself, a Project Director and a Project Manager. 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 & Design category for the 2009 actual/estimated costs and the 2010 projected costs.

A. The Engineering & Design activities performed in 2009 and 2010 are required to support the overall Turkey Point 6&7 schedule. For the period ending December 31, 2009, Engineering & Design costs are projected to be $8,231,488 as shown on Line 5 of Schedule AE-6 of Appendix II. For the period ending December 31, 2010, Engineering & Design costs are projected

to be $58,025,409 as shown on Line 5 of Schedule P-6 of Appendix II. Table 4 of Exhibit SDS-4 provides a detailed breakdown of the Engineering & Design subcategory costs, including a description of items included within each category.

Engineering and Design costs consist primarily of FPL employee and engineering consulting services necessary to develop the construction execution plan for the Turkey Point 6 & 7 project. Engineering and Design expenditures consist primarily of anticipated payments to qualified engineering firms supporting preliminary engineering and detailed site specific design of the project. Preconstruction engineering and design services are necessary to define the project to the level of detail necessary to support the creation of a detailed project construction schedule and the development of bid packages to support specific preconstruction activities. The pre-construction activities will include site layout, balance of plant design, and integration with existing site utilities and new infrastructure services required by the project. These include water supply, wastewater, transmission and support facilities. FPL engaged Black & Veatch/Zachry to undertake the initial 2008-2009 pre-construction planning activities and has not yet selected a vendor for the 2010 portion.

Costs for participation in industry groups include the EPRI Advanced Nuclear Technology working group (with annual fees of $275,000), the Design

Centered Working Group (DCWG) (no charge to participate in this group), and APOG fee was a $50,000 initial capital contribution in consideration of 20% interest in the group. 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 2009 actual/estimated costs and the 2010 projected costs.

A. For the period ending December 31, 2009, Long Lead Procurement costs are projected to be $0 as shown on Line 6 of Schedule AE-6 of Appendix II. 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 2009 actual/estimated costs and the 2010 projected costs.

A. For the period ending December 31, 2009, Power Block Engineering and Procurement costs are projected to be $21,893 as shown on Line 7 of Schedule AE-6 of Appendix II. For the period ending December 31, 2010, Power Block Engineering and Procurement costs are projected to be $13,750 as shown on Line 7 of Schedule P-6 of Appendix II.

Power Block Engineering and Procurement actual/estimated costs in 2009 consist solely of FPL payroll and expenses supporting negotiations with Westinghouse/Shaw. FPL is currently negotiating the scope, terms and

conditions associated with an EP contract with Westinghouse/Shaw that will be one of the defining commercial documents for the project.

Q. What are the major differences between the 2009 actual/estimated values and those projected in the May 2008 filing for the Power Block Engineering and Procurement category?

A. A difference of $70,765,252 is shown for Power Block Engineering and Procurement as a result of strategic decisions regarding the pursuit of the EP contract discussed earlier in this testimony.

Q. Please describe the activities in the Transmission Engineering category for the 2009 actual/estimated costs and the 2010 projected costs.

A. For the period ending December 31, 2009, Transmission Engineering expenditures are projected to be $0 as shown on Line 25 of Schedule AE-6 of Appendix II. For the period ending December 31, 2010, Transmission Engineering expenditures are projected to be $1,209,600 as shown on Line 25 of Schedule P-6 of Appendix II.

All 2009 costs associated with Transmission planning are related to the licensing and permitting activities, and therefore are appropriately included in those categories, described above. Activities are projected to move from the planning stage to detailed engineering of the transmission improvements. These Transmission Engineering expenditures are projected to begin in 2010.

Q. Does this conclude your direct testimony?

A. Yes.

Appendix II is in a separate book.

Appendix III is in a separate book.

1. NuStart Consortium, LLC

   - Organization Mission: To improve the quality of life through new nuclear power. The goal will be accomplished by meeting the following objectives: 1) demonstrate that a Combined Construction and Operating License (COL) can be obtained from the Nuclear Regulatory Commission in a timely and cost-efficient manner; and: 2) complete the design engineering for the two selected reactor designs.
   - Members include: Exelon, Entergy, Florida Power & Light Co., Electricite De France International North America, Inc., Progress Energy, Duke Energy, Southern Nuclear Development, Tennessee Valley Authority, South Carolina Electric and Gas Company, DTE Energy
   - Accomplishments to date:
     - Developed and submitted AP-1000 Reference COLA for Bellefonte.
     - Developed and submitted ESBWR Reference COLA for Grand Gulf.
     - Provide oversight and direction for DCWG working groups.
     - Coordinated responses to various industry issues.

2. APOG (Association of AP-1000 Owners)

- Organization Mission: Engaging in activities in the members' common interest related to the AP1000 nuclear power units and facilitating communication among the members.
- Members include: Duke Energy, Progress Energy, South Carolina Electric and Gas, Southern Nuclear Operating Co., Florida Power & Light Co.
- Accomplishments to date:
    - Established committees for Finance, Legal and Purchasing.
    - Working on establishing procedures and processes for purchasing services.

3. AP-1000 Design Centered Working Group.

- Organization Mission: The DCWG provides a common voice to represent the interest of future owner/operators of the AP1000 design within the COLA review. The groups approach compliments the NRC's review strategy by participating in resolving issues.
- Members include: TVA for Bellefonte 3&4; Duke Energy for Lee 1&2; SCE&G for Summer 2&3; Southern Nuclear for Vogtle 3&4; Progress Energy for Harris 2&3 and Levy 1&2; and FPL for Turkey Point 6&7
- Accomplishments to date:
    - Developed a methodology for implementing the design-centered approach for generation and subsequent review of the AP1000 COLs.
    - Develops coordinated responses to NRC questions concerning various aspects of COLA's.
    - Provides a central coordinating organization to distribute the information associated with design issues as they are resolved on individual COLAs with the NRC.

4. Advanced Nuclear Technology (ANT) Group.

- Overview of Project: The EPRI Advanced Nuclear Technology ("ANT") Supplemental Program (the "ANT Program") has been established by the Electric Power Research Institute, Inc. ("EPRI") to proactively address and evaluate issues regarding the near-term deployment of advanced light water reactors. The EPRI ANT Program is a scientific research program focused on the regulatory, economic, technical, and social issues that could impact the ability to license, construct and start-up new advanced light water reactors. The EPRI ANT Program is directed and managed by EPRI with the advisory oversight of the utility members of the Program.
- Members include: All EPRI members are eligible for participation in the ANT Program.
- Accomplishments to date:
    - Projects to assist in developing management strategies for operations of the new plants.
    - Projects to assist in establishing Industry recommendations for Engineering and Design activities
    - Industry input into manufacturing quality assurance programs.

Table 1. 2009 and 2010 Preconstruction Costs

Category	Current 2009 Actual/ Estimated Costs	2009 Projected Costs (May 2008)	Difference from May 2008 Projection	2010 Projected Costs
Licensing	$35,436,131	$26,668,968	($8,767,163)	$29,778,705
Permitting	$1,951,150	$2,422,095	$470,945	$2,703,151
Engineering & Design	$8,231,488	$10,121,791	$1,890,303	$58,025,409
Long Lead Procurement	$0	$0	$0	$0
Power Block Engineering & Procurement	$21,893	$70,787,145	$70,765,252	$13,750
Total Preconstruction Costs	**$45,640,661**	**$110,000,000**	**$64,359,339**	**$90,521,015**
Transmission	$0	$0	$0	$1,209,600
Total Preconstruction Costs & Transmission	**$45,640,661**	**$110,000,000**	**$64,359,339**	**$91,730,615**

Table 2. 2009 and 2010 Preconstruction Costs – Licensing

Category	Current 2009 Actual/ Estimated Costs	2009 Projected Costs (May 2008)	Difference from May 2008 Projection	2010 Projected Costs
NNP Team Costs – NNP FPL payroll and expenses, FPL Project Team Facilities, FPL Engineering, FPL Licensing	$5,338,474	$6,210,997	$872,523	$6,335,162
COLA Production – COLA Contractor, Project A&E, NRC and DCWG fees;	$18,504,652	$12,618,241	($5,886,411)	$15,754,562
SCA Oversight	$1,881,458		($1,881,458)	
SCA Subcontractors:				
• ECT – Transmission	$1,065,841	$835,000	($230,841)	
• Golder – Environmental	$1,224,574	$865,000	($359,574)	
• McNabb – Underground Injection	$ 72,000	$110,000	$ 38,000	
SCA Total	$4,243,873	$1,810,000	($2,433,873)	$2,970,902
Environmental Services – FPL payroll and expenses, External support expenses	$2,410,506	$1,553,500	($857,006)	$703,315
Power Systems – FPL payroll and expenses, System studies, licensing and permitting support and design activities	$2,127,627	$2,177,226	$49,599	$539,890
Licensing Legal – FPL payroll and expenses, External Legal Services, Expert Witnesses	$1,857,518	$2,299,004	$441,486	$2,487,746
• Regulatory Affairs	$828,213	$0	($828,213)	$732,465
• Regulatory Accounting	$125,268	$0	($125,268)	$254,663
Total Regulatory Support	$953,481	$0	($953,481)	$987,128
Total Licensing	**$35,436,131**	**$26,668,968**	**($8,767,163)**	**$29,778,705**

Table 3. 2009 and 2010 Preconstruction Costs - Permitting

Category	Current 2009 Actual/ Estimated Costs	2009 Projected Costs (May 2008)	Difference from May 2008 Projection	2010 Projected Costs
Marketing and Communications – FPL payroll and expenses, External Media Support, External Polling and Outreach Support, Graphics and Collateral materials	$605,159	$635,000	$29,841	$658,863
Development – FPL payroll and expenses, various studies	$749,245	$744,897	($4,348)	$719,488
Legal – FPL payroll and expenses, external support for permitting legal specialists	$392,624	$285,000	($107,624)	$195,904
Contingency	$204,122	$757,198	$553,076	$1,128,896
Total Permitting	**$1,951,150**	**$2,422,095**	**$470,945**	**$2,703,151**

Table SDS-4. 2009 and 2010 Preconstruction Costs – Engineering and Design

Category	Current 2009 Actual/ Estimated Costs	2009 Projected Costs (May 2008)	Difference from May 2008 Projection	2010 Projected Costs
Engineering and Construction Team – FPL payroll and expenses, Preconstruction project management	$2,945,370	$2,434,826	($510,544)	$5,067,747
Pre-construction External Engineering – construction planning	$4,959,929	$6,000,000	$1,040,071	$45,000,000
APOG Membership Participation	$50,721	$0	($50,721)	$150,000
EPRI Advanced Nuclear Technology	$275,468	$0	($275,468)	$275,000
Contingency	$0	$1,686,965	$1,686,965	$7,532,662
Total Engineering and Design	**$8,231,488**	**$10,121,791**	**$1,890,303**	**$58,025,409**