

# **Review of Florida Power & Light Company's Project Management Internal Controls For Turkey Point 6 & 7 Construction**

JUNE 2015

BY AUTHORITY OF  
The Florida Public Service Commission  
Office of Auditing and Performance Analysis



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Florida Power & Light Company's  
Project Management  
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for  
Turkey Point 6 & 7 Construction**

**David F. Rich  
Public Utility Analyst IV  
Project Manager**

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# 1.0 Executive Summary

## 1.1 Turkey Point 6&7 Project At a Glance

- ◆ Project focus remains on licensing and licensing is the current critical path
- ◆ Revised NRC COLA review schedule and Section 366.93 FS impact project schedule
- ◆ Current Commercial Operation Date (COD) delayed five years to 2027 and 2028
- ◆ Estimated cost range - \$13.7 billion to \$20.0 billion, up 8.7 percent from a year ago
- ◆ State site certification is being appealed in court
- ◆ Construction contract(s) likely will not be signed before 2017
- ◆ COLA approval now estimated as March 2017
- ◆ New Nuclear Plant moved to Nuclear Division; reports to the Chief Nuclear Officer
- ◆ FPL asserts the project remains economically feasible

## 1.2 Audit Execution

### 1.2.1 Purpose and Objective

This audit addresses project internal controls and management oversight used by Florida Power & Light Company (FPL or the company) in managing the Turkey Point 6 & 7 (PTN6&7) project. The primary objective of this audit was to provide an independent account of project activities and to evaluate internal project controls. Information in this report may be used by the Commission to assess the reasonableness of FPL cost-recovery requests.

Commission audit staff published previous reports in 2008 through 2014, each entitled *Review of Florida Power & Light's Project Management Internal Controls for Nuclear Plant Uprate and Construction Projects*. These previous reports are available on the Commission website at [www.floridapsc.com](http://www.floridapsc.com).

### 1.2.2 Scope

The period of this review is January 2014 to May 2015. Staff examined the adequacy of FPL project management and internal controls for the PTN6&7 project. The internal controls assessed were related to the following key areas of project activity:

- ◆ Planning
- ◆ Management and organization
- ◆ Cost and schedule controls
- ◆ Contractor selection and management
- ◆ Auditing and quality assurance

Comprehensive controls are essential for successful project management. However, adequate and comprehensive controls are ineffective if not actively emphasized by management, embraced by the organization, and subject to oversight, and revision. Proper internal controls minimize risk, enhance its mitigation and management, and aid efficient, reasoned decision making.

Risk must be timely and accurately identified. Sufficient safeguards created, vetted, and in place will help prevent and mitigate risk. Prudent decision making results from well-defined processes that address identified risks, expectations, and cost. Effective communication, adherence to clear procedures, and vigilant oversight are also essential to ensure prudent project decisions.

Commission audit staff's review places primary importance on internal controls found in the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing* and in the *Internal Control - Integrated Framework* developed by the Committee of Sponsoring Organizations of the Treadway Commission. The framework states that an internal control should consist of five interrelated components:

- ◆ Control environment
- ◆ Risk assessment
- ◆ Control activities
- ◆ Information and communication
- ◆ Monitoring

To maximize operational effectiveness and efficiency, reliability of financial reporting, and compliance with applicable laws and regulations, all five components must be present and functioning in concert to conclude that internal controls are effective.

### **1.2.3 Methodology**

Initial planning, research, and data collection occurred from December 2014 through January 2015. Staff interviewed project management in April 2015.

Audit staff conducted additional data collection and analysis from January through May 2015. Staff also reviewed project internal audits and company testimony, discovery, and filings in Docket No. 150009-EI.

A large volume of information was collected and analyzed. Information collected from FPL included the following categories:

- ◆ Policies and procedures
- ◆ Organizational charts
- ◆ Project timelines
- ◆ Vendor and contract change orders and updates
- ◆ Vendor invoices
- ◆ Internal and external audit reports

## **1.3 Overview**

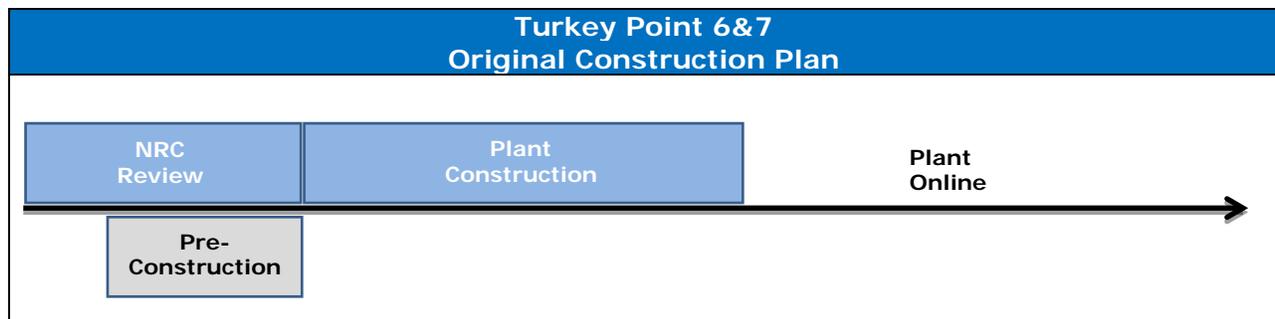
### **1.3.1 Turkey Point 6&7 New Nuclear Project**

During 2014, FPL continued to focus on licensing and characterizes its project management as deliberate and stepwise. The project critical path remains licensing, unchanged from a year ago.

FPL continues pursuing its Combined License Application (COLA) with the Nuclear Regulatory Commission (NRC) and, upon approval, an option to build two new AP1000 nuclear reactors, designated as Turkey Point Unit 6 and Turkey Point Unit 7.

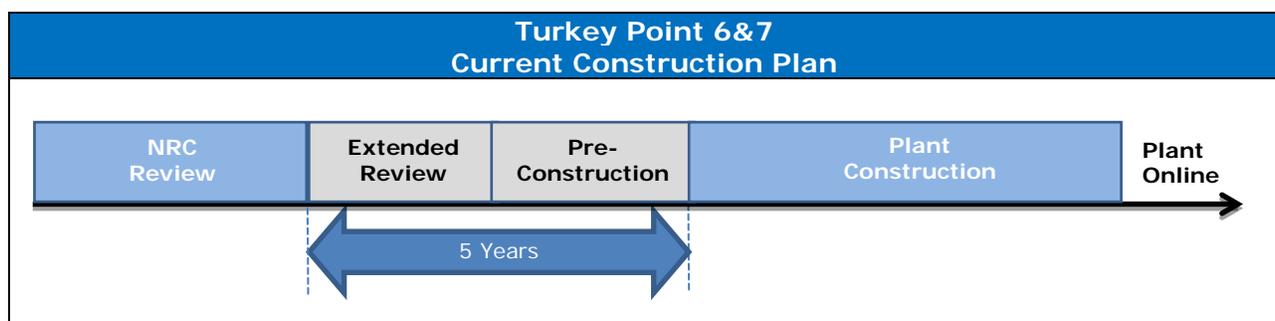
Also in 2014, the NRC issued a revised COLA review schedule, delaying the anticipated date for COLA approval to March 2017. With the NRC revised schedule as its basis, FPL conducted a review of the PTN6&7 project schedule, developing a new construction timeline and cost estimate range. As a result of its schedule review, FPL also initiated new assessments of 18 critical project tasks with the intent of improving schedule detail, defining work scope, validating project assumptions, and supporting pre-construction work upon COLA receipt. The assessments are underway, scheduled to conclude in December 2016.

FPL believes that the NRC revised COLA review schedule, combined with changes to Florida statutes relevant to the project sequencing and construction, have combined to add five years and as much as \$1.6 billion to project schedule and cost. The company states that pre-construction work previously anticipated to be accomplished concurrent with latter stages of the NRC review process (see **Exhibit 1**) is no longer possible and cannot begin now until receipt of the COLA (see **Exhibit 2**). Combined, these changes have added five years to the project timeline.



**Exhibit 1**

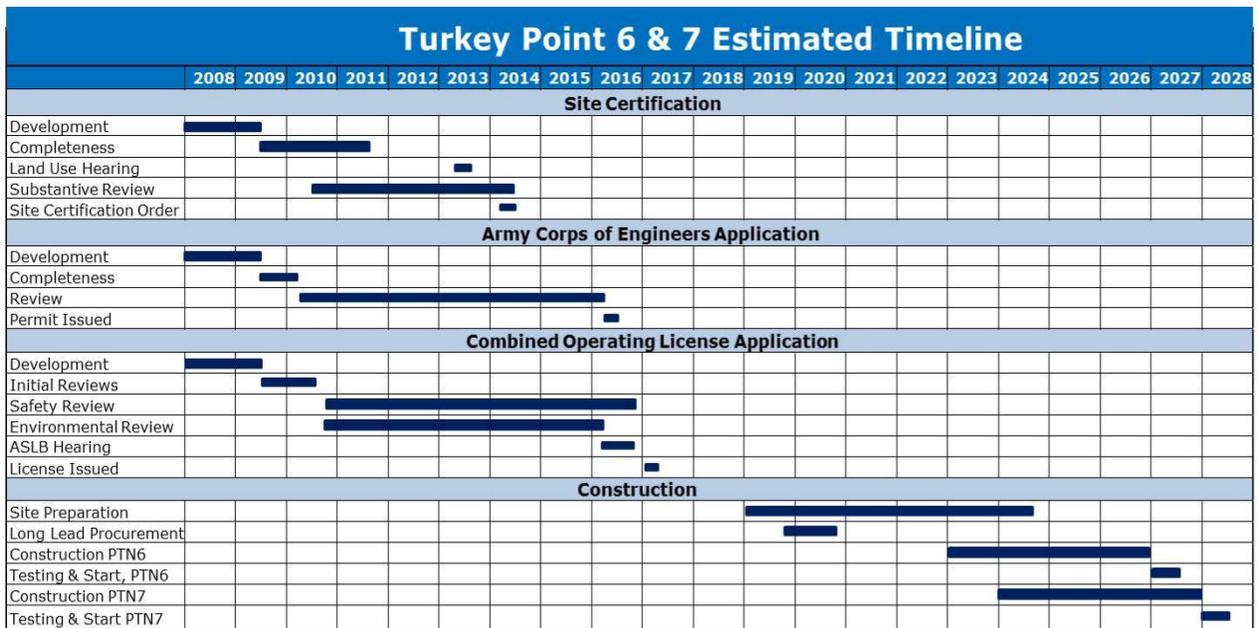
Source: Document Request 4.1



**Exhibit 2**

Source: Document Request 4.1

FPL completed an internal schedule review in the fall of 2014 and published a revised PTN6&7 project timeline in December. **Exhibit 3** shows the revised project timeline.



**Exhibit 3**

Source: Document Request 1.13

### Licensing Schedule Changes

FPL received the Draft Environmental Impact Statement in February 2015 and receipt of the Final Environmental Impact Statement is now tentatively expected in February 2016.

In April 2014, FPL responded to NRC safety review concerns in the areas of geology, seismology, and geotechnical engineering and the NRC concluded that FPL’s responses were sufficient to complete its safety review. **Exhibit 4** shows the revised safety review milestones:

Phase of Safety Review	Previous	Current
<b>Phase A</b> - Requests for Additional Information (RAIs) and Supplemental RAIs	02.2012	06.2015
<b>Phase B</b> - Advanced Final Safety Evaluation Report (SER) with no Open Items	01.2013	01.2016
<b>Phase C</b> - Advisory Cmte, Reactor Safeguards (ACRS) review, Advanced Final SER	07.2013	05.2016
<b>Phase D</b> - Final SER	11.2013	10.2016

**Exhibit 4**

Source: Document Request 1.1

Reallocation of NRC review resources to deal with the waste confidence issue directly impacted agency ability to complete the environmental portion of the COLA and contributed to project delay.

### Project Cost Estimate

Project cost range has increased about 8.7 percent over last year’s estimate. From a range of \$12.62 billion to \$18.42 billion in 2014, the estimated range is now \$13.7 billion to \$20.0 billion. **Exhibit 5** shows project cost estimates, 2007-2015.



## 1.4 Commission Audit Staff Observations

Based upon its information gathering and analysis, Commission audit staff developed the following observations regarding the Turkey Point 6&7 project:

- ◆ Project internal controls, risk evaluation, and management oversight are adequate and responsive to current project requirements.
- ◆ Invoicing policies and procedures are adequate, universally understood and followed.
- ◆ Contracts and contract change orders (CO) adhered to FPL procedures and included all required justifications.

## 2.0 New Construction - Turkey Point 6&7

### 2.1 Key Project Developments

There were no federal applications submitted or approvals and/or certifications received in 2014. Site Certification was granted by the State of Florida in May 2014, effectively approving the project and 88 miles of associated transmission lines. A legal challenge is ongoing and a decision is expected in early 2016.

FPL states that the project critical path remains unchanged. That critical path is obtaining the licenses and approvals necessary to construct and operate Turkey Point 6&7. Specifically, that includes completing the licensing phase, obtaining FPSC approval for pre-construction activities (e.g. developing a site plan and execution plan, negotiating procurement and construction contracts), obtaining FPSC approval for construction activities, and conducting construction activities (i.e. building access roads and bridges, creating underground and civil infrastructure, building support facilities, and sequenced construction of the nuclear units).<sup>1</sup>

The FPL project schedule and cost estimate range review determined that a five-year delay is necessary and estimated project cost has increased approximately 8.7 percent. The estimated cost range is currently \$13.7 billion to \$20.0 billion.

#### 2.1.1 Significant Events

##### *Federal Applications, Approvals, or Certifications*

No federal applications, approvals or certifications were issued to or submitted by FPL during 2014. However, in mid-2014 the Federal Aviation Administration did issue permit extensions for the proposed PTN6&7 containment structures. These permits are valid through July 2015 and relevant to the safe, efficient use and preservation of navigable airspace around the proposed containment facilities. FPL plans to renew the permits.

##### *COLA Delay*

Based on the revised NRC COLA review schedule of mid-2014, FPL reviewed the PTN6&7 project timeline and cost estimate range. That review was completed in late 2014, producing a new project timeline and cost estimate range. The new schedule adds five years to the project and increases the project cost estimate.

In April 2014, the NRC announced delays in publication of three documents critical to the continuation of the project -- Draft Environmental Impact Statement to February 2015, Final Environmental Impact Statement to February 2016, and the Final Safety Evaluation Report to March 2017. The Draft Environmental Impact Statement was received on schedule and FPL believes the remaining two milestones will be met on the schedule announced by the NRC. As a consequence of these delays, FPL shifted its estimated date for COLA approval.

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<sup>1</sup> FPL response to Staff Document Request 1.4

### ***NRC Requests for Information (RAI)***

In 2013, the NRC asked FPL to readdress certain portions of the company's original Final Safety Analysis Review relating to seismology and geology. FPL engaged third party experts to review data and provide assistance in preparing responses. FPL completed the environmental RAIs in 1Q2014 and those regarding safety in mid-2014.

Approximately a dozen RAIs remain open. FPL states that all RAIs will be submitted timely, by June 2015.

### ***State Site Certification Application***

The Florida Power Plant Siting Board granted final Site Certification in May 2014, including 88 miles of associated transmission lines. Four communities opposed the transmission lines (Miami, South Miami, Pinecrest and Coral Gables). FPL reached a settlement with Coral Gables. Remaining parties submitted position briefs to the 3<sup>rd</sup> Circuit Court of Appeals in January 2015. Responses were due 2Q2015 but a 60-day extension was granted to Florida Department of Environmental Protection. FPL expects the Court to hear the challenge in 4Q2015, with a decision following in approximately 90 days.

FPL states that it is confident of a favorable outcome but that the appeal process has potential to challenge PTN6&7 project critical path if the appeal is:

- ◆ Not heard in a timely manner, extending beyond 2017
- ◆ Decided in the appellants' favor and modifications cannot be made by 1Q2017, or
- ◆ Dismissed but appealed to the Florida Supreme Court, extending the process beyond 1Q2017

### ***Land Exchange***

The Everglades National Park land exchange process continues and is expected to be successfully completed by the end of this year. The swap would allow FPL, at little or no cost, to exchange land it owns within the Everglades National Park for land on the eastern edge of the park, creating a continuous north-south transmission right-of-way in Miami-Dade County.

A Draft Environmental Impact Statement was published in January 2014. Supporting agreements with state and regional agencies are in place, the swap is authorized by federal legislation, and the National Parks Service is completing its final environmental review. The Final Environmental Impact Statement is expected in 3Q2015, with a decision anticipated in 4Q2015.

### ***Transmission***

The Site Certification Final Order of May 2014 approved FPL's proposed transmission corridors and directed maximum use of the Western Consensus Corridor, which is dependent on successful completion of the land exchange and obtaining land rights from federal or state agencies. It also requires additional negotiations between FPL and the parties. If the Western Consensus Corridor cannot be obtained timely and at reasonable cost, FPL would pursue development of the Western Preferred Corridor also subject to the proposed land exchange with the National Parks Service.

### **Project Construction Contract**

FPL maintains that the company has not made a decision whether an EPC or EP&C contracts would be more advantageous. The company states that a decision at this early point would be unwise based on industry experience. FPL believes the best course of action is to defer pursuit of the construction contract, with intentions of signing an EPC or EP&C up to 18 months before construction would begin in 2019. The company acknowledges risk associated with waiting (e.g. craft availability and costs increases) but believes this course reduces total risk.

### **Project Long Lead Forging Reservation**

The Forging Reservation agreement between FPL and Westinghouse (2008) reserves manufacturing capacity. Multiple extensions have been signed, the most recent in 2014, extending original terms and conditions until October 2016. FPL believes continued extension is in its best interest, reduces near term cost and risk, while preserving schedule flexibility. The company acknowledges risk. If the agreement is dissolved, FPL may forfeit some or all of its \$10.8 million deposit.

### **Project - Joint Ownership**

Required annual meetings continue between FPL and prospective joint owner utilities. FPL provides the Commission with status updates. The 2014 participants included Florida Municipal Energy Association, Florida Municipal Power Agency, Orlando Utilities Commission, and Seminole Electric Cooperative. The 2015 meeting is not yet scheduled.

### **2.1.2 Turkey Point 6&7 Project Cost Estimate**

FPL's reexamination of the cost estimate range resulted in a new cost estimate range of \$13.7 billion to \$20.0 billion. This new estimate represents an increase of approximately 8.7 percent overall, \$1.1 billion on the low end and \$1.6 billion on the high end of the range. **Exhibit 6** provides a component breakdown of the increase 2014 to 2015. Previously, **Exhibit 5** provided a project cost estimate history. FPL attributes the 2015 higher cost estimate range to NRC review schedule delays and Florida legislative changes that make pre-construction in parallel with the COLA review impossible.

<b>Turkey Point 6&amp;7 In-Service Cost Estimate – 2014 and 2015</b>				
<b>Category</b>	<b>2015 Low</b>	<b>Change from 2014</b>	<b>2015 High</b>	<b>Change from 2014</b>
Site Selection	\$6,118,105	\$0	\$6,118,105	\$0
Pre-construction	\$304,509,934	\$114,746,694	\$337,177,897	\$111,414,657
Construction	\$10,149,263,190	\$1,087,930,415	\$14,906,444,521	\$1,602,527,589
AFUDC	\$3,240,607,689	(\$84,827,220)	\$4,744,320,802	(\$138,109,210)
<b>TOTAL</b>	<b>\$13,700,498,918</b>	<b>\$1,117,849,889</b>	<b>\$19,994,061,325</b>	<b>\$1,575,833,036</b>

**EXHIBIT 6**

Source: Docket 140009-EI, TOR-2, May 2014 & Docket 150009-EI, Tor-2, May 2015

### 2.1.3 FPL Project Feasibility Analyses

FPL conducted its 2015 annual PTN6&7 project feasibility analyses using updated assumptions and forecasts but in the same basic analytical approach as the Need Determination proceeding and six previous feasibility studies. Analyses examined fourteen different scenarios of varying fuel and environmental compliance cost forecasts for 40 and 60 year operational lifespans. The company believes these analyses confirm cost effectiveness of the project and the benefits associated with constructing the new plants.

## 2.2 Project Controls and Oversight

### 2.2.1 Project Controls

Project controls are built into the financial and accounting systems, department procedures, and desktop instructions. No project controls were revised during 2014. Those shown in **Exhibit 7** below are the project instructions created or deleted during the year.

Turkey Point 6&7 Revised or Deleted Project Instructions - 2014			
Number	Title	Revised	Deleted
NNP-PI-1-00	Project Schedule Configuration and Control		02.11.14
NNP-PI-1-1	Change Control for COL Application Information		11.13.14
NNP-PI-3-01	Review of WEC Design Change Proposals (DCPs)	11.07.14	
NNP-PI-3-02	Pre-COL Departure Process	11.07.14	
NNP-PI-3-03	Preparation of Interim Staff Guidance – 011 Screens / Evaluations	11.07.14	

#### EXHIBIT 7

*Source: Document Request 1.27*

These revisions were responsive to changing project requirements. No internal audits, quality assurance reviews, or external audits reviewed by staff cited any weaknesses in project instructions or management controls.

“White papers” represent a project management tool that has been used by FPL to record and document key decisions or actions. There were no white papers produced in 2014 and none to date in 2015. One project memo was issued in November 2014, discussing the project schedule review and making a recommendation on revised project target dates.

Controls and process instructions exist in the following areas of project management:

- ◆ Budgeting and reporting
- ◆ Schedule and activity reporting
- ◆ Contract management
- ◆ Internal and external oversight
- ◆ Executive management

- ◆ Subordinate managers
- ◆ FPL subject matter experts (SME) and team members
- ◆ Third party experts
- ◆ Regular updates and reports on risk, cost, and schedule

FPL's Project Controls Group provides management schedule, budget, costs, vendor performance, and risk reports on a regular, ongoing basis. Primavera-6 remains the scheduling software, capable of real time updating, active monitoring, tailored date sorting, and customized status reports.

### 2.2.2 Risk Management Reporting

Project risk management remains unchanged from last year, using ongoing, regular meetings and reports designed to identify, characterize, evaluate, and isolate or mitigate project risk. Weekly small team meetings track project activities, facilitate risk identification, discussion, and development of response strategies. A more senior level of management gets involved if a small team cannot mitigate risk. The item is further elevated to increasingly higher levels of management, until resolution is achieved.

Project schedule, progress, and cost metrics are monitored in real time. Results are reported using standardized reports, increasing subject matter familiarity and allowing for close scrutiny of contractor performance. FPL considers vendors as important stakeholders in risk management and requires them to provide weekly agendas and progress reports.

The PTN6&7 project team meets monthly to review project schedule, budget, project issues, and risks. Each identified project risk is tracked and reviewed until resolved and closed out. A Cost Report meeting also provides an opportunity to scrutinize project cost risk. Project management provides regular project updates to FPL executive management.

Commission audit staff reviewed all monthly project dashboards and quarterly risk analyses for 2014 and to date in 2015. These reports provide issue and risk clarity and detail, a probability of occurrence, and analysis of potential project impacts, cost, and schedule turbulence. Areas assessed included:

- ◆ NRC Licensing
- ◆ US Army Corps of Engineers Permitting
- ◆ Site Certification Application
- ◆ Underground Injection Control well
- ◆ Miami-Dade County
- ◆ Development
- ◆ Project Design
- ◆ Pre-Construction Planning
- ◆ Budget
- ◆ Schedule / Revised Schedule
- ◆ Procurement
- ◆ Safety

The quarterly risk analysis is a project management assessment tool of wider, more comprehensive scope. Its purpose is to identify key issues, characterize them, provide historical trending, and track attendant risk. An integral part of this assessment is determining a likelihood of occurrence for each risk (low, medium, or high) and the potential negative consequences to the project if it occurs (low, medium, high). A response is designed for each identified risk. Then, a mitigation owner is assigned, management strategies are developed, and progress is tracked until the risk is either mitigated or eliminated.

PTN6&7 project leadership also has the option of presenting information to and obtaining the advice of the FPL Risk Committee. No presentations were made to the FPL Risk Committee from January 2014 thru May 2015.

Commission audit staff believes that risk controls are adequate and responsive to the current stage of the PTN6&7 project. Monthly dashboard and quarterly assessments inform FPL management and executive leadership. However, staff believes that as the plan shifts from licensing to construction a reassessment of content will be required and restructuring may be necessary to meet the increased demands of the rapidly expanding project.

### **2.2.3 Management Oversight**

The position of Construction Director was filled in early 2014 with an experienced manager from the FPL EPU project. No additional personnel changes occurred in the remainder of 2014.

A new position of Vice-President, Design and Execution was created in early 2015 to place all major project activity under one group. FPL stated that the impetus for this initiative is from other projects, not PTN6&7 in its current state of project development. No positions or responsibilities changed in the New Nuclear Projects organization in the last year. Project procedures other than those shown in **Exhibit 7** remain unchanged to preserve project continuity.

### **2.2.4 Audits**

In 2014, FPL again selected Experis to conduct an audit of project expenditures for 2014, under the direction and supervision of FPL Internal Audit. The report was published and reviewed by Commission staff in March 2015.

Audit areas remained unchanged from a year ago -- [REDACTED] and [REDACTED] of annual NCRC filings. The audit examined approximately \$ [REDACTED] million of \$20.2 million in expenditures, or approximately [REDACTED] percent of the total. No exceptions were noted.

Since 2008, Concentric Energy Advisors has performed an annual review of PTN6&7 project processes, procedures, and structure, focusing on internal controls. In 2015 testimony, Concentric concluded that FPL capably managed the project in 2014 and that project expenditures during the year were prudently incurred.

### **2.2.5 FPL Quality Assurance Reviews**

The FPL Quality Assurance (QA) group holds vendors accountable for process and product quality while under contract to FPL. Oversight of production quality, manufacturing activities,

and control procedures is accomplished through inspections at the vendors' headquarters and manufacturing sites.

During 2014 and to date in 2015, FPL Quality Assurance assessors did not conduct any on-site manufacturer visits. For vendors working at FPL facilities, QA assessors conducted on-site spot visits. No areas of vendor non-compliance related to the project were identified by FPL.

Commission audit staff continues to believe the layers and methodologies of FPL QA oversight are adequate, properly focused for current project development and scope. However, as the project matures, regular FPL QA visits to vendor manufacturing sites and a reassessment of the FPL QA oversight plan, schedule, and structure will be warranted. Restructuring, or at least an increase in QA scope and frequency, is likely necessary to accommodate project expansion.

## **2.3 Contract Oversight and Management**

The FPL system for contract management and oversight remains intact from a year ago. The company uses project management, technical representatives, and QA personnel to monitor vendor performance. Vendors are required to provide regular progress reports.

Integrated Supply Chain sourcing specialists and contract managers monitor change orders and invoicing for anomalies. Items outside established contractual norms are routinely reported up the chain of command. Schedule and cost risks are identified, prioritized, and quantified. This information is then used to formulate responsive solutions.

FPL continues to employ systems, policies, procedures, and processes to identify invoice mistakes or vendor overcharges. Invoicing specialists review invoices for accuracy in meeting contract provisions and prevailing labor rates. Billed hours are scrutinized and checked against job categories. Travel expense requests are checked for applicability, authorization, required justification, and linkage to an existing contract.

### **2.3.1 Contract Oversight**

FPL's controls to communicate procedures and provide ongoing oversight are unchanged from a year ago. These include policies and instructions, authorization requirements, approval methodologies, invoicing and control procedures.

Audit staff's review reaffirmed that FPL invoicing policies and procedures are well understood and that FPL contract and invoicing personnel follow company policies, practices, and procedures. Evidence of challenges to invoiced amounts and an appropriate level of push back of questionable or unsupported charges was observed.

FPL opened one warranty claim against a vendor during this report period. The amount disputed was less than \$40,000 and the vendor was required to rework tasks previously completed. The claim was satisfied and closed.

Processes for contract oversight are adequate. Required authorizations are present and in the configuration specified by procedures. Vendor invoices and supporting documentation (e.g.

employee receipts) are challenged appropriately. Payment is withheld until reconciliation of any dispute. FPL memos, emails, and spreadsheet entries document challenges to invoices and requests for supporting documentation from vendors.

### 2.3.2 Contracts Executed or Modified

In 2014, PTN6&7 project management signed two significant new contracts (see **Exhibit 8**). One was single sourced (CB&I Stone & Webster) and the other was competitively bid (HDR Engineering Inc.). Commission audit staff verified that required letters of justification were present and in compliance with FPL internal policies and procedures.

Turkey Point 6&7 New Contracts Greater than \$100,000					
Vendor	Description	Terms	Original Value	Issued	Expire Date
HDR Engineering, Inc.	Develop Submittals for USACE Sect408 Authorization	T&M		08/13/14	11/26/14
CB&I Stone & Webster	Project Schedule Review & Assessment	Fixed Price		06/06/14	12/15/14

**EXHIBIT 8**

Source: Document Request 1.37

Change orders represent added or deleted contract scope, an increase or decrease of contract value, or an administrative adjustment without monetary impact. Commission audit staff determined FPL executed no change orders of more than \$50,000 during 2014 or to date in 2015.

There are 17 contracts (see **Exhibit 9**) valued at more than \$250,000, representing original contract value and any subsequent change order.

Commission audit staff reviewed all 2014 contract justifications and those to date in 2015; no discrepancies were noted. The Bechtel contract is the largest at nearly \$ [REDACTED]. Signed in 2007, this contract now has 58 change orders that have altered scope and value. Due to the probability of project schedule extensions, it is likely that the Bechtel contract cost will continue to increase.

Turkey Point 6&7 Existing Contracts Greater than \$250,000			
Vendor	Description	Current Value	Type*
AMEC Environment & Infrastructure	RAI response review		S
AMEC Environment & Infrastructure	RAI response review / FSAR 2.5.4		S
Atkins North America	Expert scientific analysis		S
Bechtel Power Corporation	COLA / SCA prep & RAI support		C, S, P
Burns & McDonnell	Design of radial collector well		C, S

Vendor	Description	Current Value	Type*
Eco Metrics, Inc.	Environmental consulting services		S
Environmental Consulting & Technology	SCA & post-submittal support		S, P
EPRI - Electric Power Research Institute	Nuclear technology; membership		S
Golder & Associates Inc.	Post-SCA submittal support		S, P
HDR Engineering, Inc.	Conceptual engineering of cooling water supply / discharge		C, S
Layne Christensen Company	Injection well testing		C
McCallum Turner, Inc.	COLA site selection RAI support		S
McNabb Hydrogeologic Consulting	Post-SCA / UIC licensing support		S, P
Paul C. Rizzo Associates, Inc.	Field Investigation; FSAR 2.5 Revision		S
Power Engineers, Inc.	Prelim Analysis of Miami River crossing and Davis/Miami Line		S
TetraTechGeo	Collector well modeling support		S
Westinghouse Electric Co.	COLA prep & RAI support		C, S, P
* C = Competitive Bid      S = Single/Sole Source      P = Predetermined Source			

**EXHIBIT 9**

Source: DR-1.36 and Exhibit SDS-7, Schedule P-7A, May 2015