BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. 160021-EI

PETITION FOR RATE INCREASE BY FLORIDA POWER & LIGHT COMPANY.

_____/

DOCKET NO. 160061-EI

PETITION FOR APPROVAL OF 2016-2018 STORM HARDENING PLAN BY FLORIDA POWER & LIGHT COMPANY

_____/

DOCKET NO. 160062-EI

2016 DEPRECIATION AND DISMANTLEMENT STUDY BY, FLORIDA POWER & LIGHT COMPANY.

_____/

DOCKET NO. 160088-EI

PETITION FOR LIMITED PROCEEDING TO MODIFY AND CONTINUE INCENTIVE MECHANISM, BY FLORIDA POWER & LIGHT COMPANY.

_____/

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PAGES 971 - ~~1020~~ 1021

PROCEEDINGS: HEARING

COMMISSIONERS PARTICIPATING: CHAIRMAN JULIE I. BROWN
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER ART GRAHAM
COMMISSIONER RONALD A. BRISÉ
COMMISSIONER JIMMY PATRONIS

DATE: Tuesday, August 23, 2016

TIME: Commenced at 4:30 p.m.
Concluded at 8:48 p.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: DEBRA KRICK
Court Reporter
(850) 894-0828

APPEARANCES: (As heretofore noted.)

PREMIER REPORTING
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I N D E X

WITNESSES

EXHIBITS

NUMBER:	ID	ADMTD

P R O C E E D I N G S

CHAIRMAN BROWN: All right. We are going to begin now, so if you could take it your seats and make sure the attorneys are present and all the parties are presents and here.

I want to make sure FPL has it's attorneys present, as well as, staff. It looks like our staff attorney has disappeared.

MR. BUTLER: As has one of the FPL attorneys. Let me correct that quickly.

CHAIRMAN BROWN: No. No. This is not a recess. Thank you.

All right. We are going to start with Mr. Goldstein at this time. FPL, are you prepared to introduce him and call him?

MR. DONALDSON: Yes.

CHAIRMAN BROWN: Mr. Goldstein have you been sworn in.

THE WITNESS: Not yet.

CHAIRMAN BROWN: Please stand with me, raise your right hand.

MITCHELL GOLDSTEIN

was called as a witness, having been first duly sworn to speak the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

MR. DONALDSON: May I proceed?

CHAIRMAN BROWN: Yes.

EXAMINATION

BY MR. DONALDSON:

Q So, Mr. Kennedy -- Mr. Goldstein? The hour is late.

A Indeed.

Q We just saw you you were sworn, correct?

A Yes, sir.

Q All right. Will you state your name and business address for the record?

A My name is Mitchell Goldstein, my business address is Endeavor Drive in Jupiter Florida.

Q By whom are you employed and in what capacity?

A I am employed by Florida Power & Light as Vice-President in finance for our nuclear fleet.

Q Have you prepared and caused to be filed 24 pages of direct prefiled testimony in this proceeding?

A I have.

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

A No.

Q Okay. If I asked you the same questions that are contained within your direct prefiled testimony, will your answers be the same?

A Yes.

MR. DONALDSON: Madam Chair, at this point in time, I would like Mr. Goldstein's direct prefiled testimony to be entered into the record as though read.

CHAIRMAN BROWN: Mr. Goldstein's prefiled direct testimony will be entered into the record as though read.

(Prefiled direct testimony inserted into the record as though read.)

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Mitchell Goldstein. My work address is 15430 Endeavor Dr. Jupiter, Florida 33478.

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

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") and NextEra Energy Resources as Vice President of Finance for the Nuclear Fleet.

Q. Please describe your duties and responsibilities in that position.

A. I am responsible for the overall financial management of the NextEra Nuclear Fleet, including FPL's four nuclear units at two sites. This includes oversight for the fleet's:

- strategic planning process, which sets priorities for the next 3 years;
- annual planning process, which establishes expense, capital and inventory budgets and operating targets for each site and the fleet;
- ongoing reporting of actual financial results, variance analyses and future forecasts; and
- continuous improvement program, which focuses on process changes to yield better safety, reliability and efficiency.

Q. Please describe your educational background and professional experience.

A. I earned my Bachelor's Degree in Science, magna cum laude, from the Wharton School of the University of Pennsylvania. I hold a Master's of Business Administration, with distinction, from Harvard Business School.

I have nearly 30 years of business experience, separated into two main parts. I spent 12 years as a strategy consultant, becoming a Partner with Mercer Management Consulting. My consulting practice was heavily focused on operational strategies and business improvement programs. Since 1995, I've held several financial and strategy leadership roles, including Chief Financial Officer at two public companies. Those roles have included responsibility for the overall financial leadership and improvement for each company. I joined FPL in 2011 in my current role.

My experience at other companies showed that it was often possible to improve quality, reliability and safety, as a means of improving productivity. This also proved to be true at FPL, where through process changes we were able to improve our performance on the key measures of safety and reliability, and this also enabled us to reduce our overall cost.

Q. Are you sponsoring any exhibits in this case?

A. Yes, I am sponsoring the following exhibits:

- MG-1 Listing of MFRs and Schedules Sponsored in Whole or in Part by Mitchell Goldstein
- MG-2 NRC Performance Indicators
- MG-3 NRC Inspection Findings
- MG-4 NRC Regulatory Status
- MG-5 Nuclear Performance Metrics

Q. Are you sponsoring or co-sponsoring any Minimum Filing Requirements ("MFRs") in this case?

A. Yes, Exhibit MG-1 contains a listing of the MFR schedules that I am sponsoring or co-sponsoring.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to: (1) provide an overview of FPL's nuclear operations; (2) describe how FPL's nuclear fleet performance has yielded significant benefits to FPL customers; (3) discuss FPL's changes made to improve performance since the 2012 rate case; and (4) discuss the O&M expenditures for the 2017 Test Year and the 2018 Subsequent Year and the capital expenditures from 2014 through 2018 for FPL's nuclear operations.

Q. Please summarize your testimony.

A. FPL's nuclear power plants are a source of safe, reliable, clean and cost effective base-load energy for FPL's customers. These plants are a key component of FPL's energy mix that provide significant value to FPL's customers in terms of fuel savings, reliability, enhanced system fuel diversity and minimization of greenhouse gas ("GHG") emissions. My testimony

summarizes FPL's efforts to help ensure the continued safe, reliable, clean and cost-effective operation of FPL's nuclear power plants to meet the significant operational and regulatory requirements for these plants.

II. BACKGROUND ON FPL'S NUCLEAR ENERGY OPERATIONS

Q. Please describe FPL's nuclear plants.

A. FPL's long and successful involvement with nuclear power started in the mid-1960s with the first order for nuclear generation in the south. FPL's plans to build nuclear units at Turkey Point were announced in 1965, and the first nuclear unit achieved commercial operation in 1972. FPL is currently licensed by the Nuclear Regulatory Commission ("NRC") to operate the St. Lucie Nuclear Plant, Units 1 and 2, and the Turkey Point Nuclear Plant, Units 3 and 4. Turkey Point Units 3 and 4 are pressurized water reactors designed by Westinghouse. Unit 3 commenced commercial operation in 1972, and Unit 4 did so in 1973. St. Lucie Units 1 and 2 are pressurized water reactors designed by Combustion Engineering (now owned by Westinghouse). Unit 1 went into commercial operation in 1976, and Unit 2 did so in 1983. The investment to build these units in the 1960s, 1970s, and 1980s has yielded significant value to FPL's customers in terms of safe, reliable, clean, cost-effective, base-load energy.

Q. Describe the ownership structure for FPL's nuclear units.

A. FPL owns 100 percent of Turkey Point Units 3 and 4 and St. Lucie Unit 1. FPL owns 85.10449 percent of St. Lucie Unit 2. The balance of St. Lucie Unit 2 is owned by the Florida Municipal Power Agency, which owns 8.806 percent, and the Orlando Utilities Commission, which owns 6.08951 percent.

Q. How long are FPL's nuclear units currently licensed to operate?

A. In the late 1990s, FPL had the foresight to begin the process to renew the operating licenses so that the benefits of those nuclear units could continue well into the 21st century. In June 2002, FPL received renewed operating licenses from the NRC for Turkey Point Units 3 and 4, and in October 2003, FPL received renewed operating licenses from the NRC for St. Lucie Units 1 and 2. The renewed licenses give FPL the authority to operate each unit for 20 years past the original license expiration date. Accordingly, the current license expiration dates are as follows: for Turkey Point Unit 3, 2032; for Turkey Point Unit 4, 2033; for St. Lucie Unit 1, 2036; and for St. Lucie Unit 2, 2043.

III. FPL'S NUCLEAR PLANT PERFORMANCE

Q. What metrics are used by FPL to measure the performance of FPL's nuclear plants?

A. FPL uses many metrics to measure the performance of its nuclear plants, including nuclear safety, regulatory performance (as measured by the NRC),

overall plant performance (as measured by an objective numerical index maintained by the Institute of Nuclear Power Operations ("INPO")), personnel safety, and reliability. INPO is an organization that promotes the highest levels of safety and reliability by promoting excellence in the operation of nuclear electric generating plants. FPL is a member of INPO.

Q. What does FPL consider the most important metric in measuring the performance of its nuclear fleet?

A. Nuclear safety is by far the most important aspect of owning and operating FPL's nuclear fleet. FPL takes its commitment to protect the health and safety of the public very seriously. The nuclear safety aspects of FPL's nuclear operations are comprehensively regulated by the NRC, the Department of Homeland Security (the Federal Emergency Management Agency), the Department of Energy (Office of Nuclear Energy) and the Environmental Protection Agency.

Q. How does the NRC measure FPL's nuclear safety record?

A. The NRC maintains and tracks a set of performance indicators as objective measures of nuclear safety performance for commercial U.S. nuclear plants. These indicators monitor the performance of initiating events, safety systems, fission product barrier integrity, emergency preparedness, occupational and public radiation safety, and physical protection (security). As shown in Exhibit MG-2, for all four FPL's nuclear units are in the "green" band of all NRC Performance Indicators in 2015, indicating the best or highest rating for these indicators of nuclear safety performance. As shown in Exhibit MG-3,

the NRC inspection findings for 2015 were also "green," again indicating the best or highest rating for these indicators of nuclear safety performance.

Q. How do FPL's nuclear plants compare to the remainder of the industry in terms of the NRC performance system?

A. Based on the NRC's Performance Indicators, FPL's plants compare favorably with the remainder of the U.S. nuclear industry. The NRC uses its Performance Indicators and inspection activities to determine the appropriate level of agency oversight and response, including the need for supplemental inspections, senior management meetings and regulatory actions.

All of the U.S. nuclear plants are listed in the NRC's Action Matrix, which categorizes each plant into one of five regulatory status columns based on overall regulatory performance. The five regulatory columns in order of best-to-worst regulatory performance are: (1) licensee response; (2) regulatory response; (3) degraded cornerstone; (4) multiple/repetitive degraded cornerstone; and (5) unacceptable performance.

Approximately 8 percent of the 100 nuclear units in the United States are characterized by the NRC as having a level of plant performance requiring increased NRC regulatory oversight (in columns 2 through 5). Of those plants: (1) the "regulatory response" category includes five plants having at least one regulatory finding of low to moderate safety significance in the past 12 months; and (2) the "multiple/repetitive degraded cornerstone" category

includes three plants having multiple regulatory findings of low to moderate safety significance, a regulatory finding of substantial safety significance, or a finding of high safety significance (or some combination of these), usually coupled with inadequate corrective actions.

As illustrated by Exhibit MG-4, none of FPL's units fall into categories requiring increased regulatory oversight. Rather, because of FPL's strong regulatory performance in 2015, FPL's nuclear units are in the "licensee response" column of the NRC's Action Matrix, which results in the normal baseline inspection program. The NRC's regulatory structure places a premium on FPL's ability to identify and correct problems. Degraded nuclear safety performance can result in increased NRC inspection activity, which, in turn, would require increased management attention to these NRC inspections and increased O&M costs. In summary, FPL is proud of its nuclear performance, both from a safety and regulatory standpoint. However, this performance cannot be sustained without continued investment in our nuclear plants and our people.

Q. Please describe the operational performance of FPL's nuclear fleet as measured by the numerical index maintained by INPO.

A. The operational performance of FPL's nuclear fleet reflects a strong nuclear safety and reliability record. FPL measures its nuclear plant performance using the INPO index. The INPO index is a metric of nuclear plant safety and reliability widely used in the U.S. nuclear power industry. In 2015, the INPO

index was calculated by summing weighted values of the following key indicators:

1. Unit Capability Factor (5 percent);
2. Forced Loss Rate (7.5 percent);
3. Forced Loss Events (7.5 percent);
4. Unavailability of High Pressure Safety Injection System (10 percent);
5. Unavailability of Auxiliary Feedwater System (10 percent);
6. Unavailability of Emergency AC Power System (Site Average) (10 percent);
7. Unplanned Reactor Trips (10 percent);
8. Collective Radiation Exposure (10 percent);
9. Nuclear Fuel Reliability/Fuel Rod Defects (10 percent);
10. Chemistry Effectiveness Indicator (10 percent);
11. Shut Down Cooling Availability (5 percent); and
12. Industrial Safety (5 percent).

Since 2012 FPL has taken steps to improve its overall performance, which resulted in improved INPO Index, generation and cost per megawatt hour ("MWh"). As illustrated by the Nuclear Performance Metrics in Exhibit MG-5, these metrics show a substantial improvement from 2012, which corresponds to increased generation and improved reliability. As with the NRC's metrics, however, these improvements cannot be sustained without continued investment in our nuclear plants and our people.

Q. What changes has FPL made since 2012 in order to achieve this improved performance for the nuclear fleet?

A. FPL's top priority remains to provide safe and reliable generation. FPL has maintained the safety and reliability of its nuclear fleet by following its Nuclear Excellence Model ("NEM"), which is the foundation of its commitment to achieve and sustain excellence in all aspects of its nuclear operations.

In support of its NEM, FPL implemented its Self-Improving Culture/Learning Organization ("SIC/LO"). Under the NEM SIC/LO, FPL benchmarked performance against its peers to identify the biggest opportunities for improvement. Based on this analysis, FPL adopted best practices from the fleet and across the industry and made several changes that have resulted in improved performance among most key metrics as mentioned above. The best practices FPL implemented included:

- Standardization of nuclear fleet procedures, qualification, training and the Corrective Action Program. Standardization leverages best practices and ensures consistency within the fleet.
- Centralization of outage planning, engineering and collaborating with non-nuclear functions where possible. Centralization ensures FPL maximizes the benefit by providing the fleet the ease of obtaining technical expertise in one location.

- Improving practices with contractor management, maintenance and work management.

Other specific practices undertaken by FPL to improve performance and control costs are addressed later in my testimony.

Q. Please describe the personnel safety performance of FPL's nuclear fleet.

A. FPL measures its nuclear fleet personnel safety performance using an INPO performance indicator known as the Total Industrial Safety Accident ("TISA") rate. The TISA rate measures the injury rate for all employees and contractors that work at our nuclear sites, and it is based on the total number of injuries per 200,000 man-hours worked over an 18 month period. An injury rate is an effective measure of personnel safety performance because it takes into account the amount of work undertaken during the reporting period in man-hours. The current TISA rate over the 18 month period ending December 31, 2015 for the nuclear fleet is 0.02 (*i.e.*, 1 injury ÷ 11,254,221 man-hours worked X 200,000 man-hours). The FPL fleet ranks Top Quartile in the industry for this indicator. The injuries are conventional industrial in nature and not radiological. The TISA rate includes injuries that would involve radiological consequences, but there have been none. FPL is committed to conducting its nuclear operations in a safe and responsible manner that avoids injuries of all kinds and promotes the physical safety and well being of its employees.

Q. Please summarize the benefits to FPL's customers of FPL's nuclear generation.

A. FPL's nuclear generating assets are critical in maintaining electric system reliability, achieving fuel cost savings, enhancing system fuel diversity and achieving reductions in FPL's system emissions of GHG, sulfur dioxide, nitrogen oxides and particulate matter. No one can dispute that these are clear, significant direct benefits to FPL's customers. As discussed below, there are also indirect benefits that serve as a value add to the overall communities in which we serve.

In 2015, the Nuclear Energy Institute ("NEI") released a study finding that because FPL's nuclear plants operate at high capacity factors and do not emit greenhouse gases, they prevent the release of more than 15 million tons of carbon dioxide annually, which is the equivalent of taking nearly 3 million cars off the road every year.

Beyond those direct benefits, the NEI study also found that FPL's nuclear fleet delivers substantial indirect benefits to Florida. The study quantified the economic benefits delivered by our nuclear operations. Specifically, the study highlights that FPL's nuclear operations support billions of dollars in economic activity annually. Every year, FPL's nuclear operations generate a combined $1.2 billion of economic activity in the counties around the Turkey Point and St. Lucie facilities. In addition, FPL's nuclear operations generate

$200 million in economic activity beyond those counties. So, the total annual statewide impact of economic activity associated with FPL's nuclear units is $1.4 billion. In addition, FPL nuclear operations contribute $70 million annually in local and state taxes. More than 5,800 direct and secondary jobs in Florida are supported by FPL's nuclear energy operations.

Q. Please describe the fuel cost savings nuclear generation provides to FPL's customers.

A. FPL's nuclear generation has resulted in over $17 billion in fuel savings from January 2000 through 2015. This translates into direct savings for FPL customers as these cost savings are passed directly to the customers through lower Fuel and Purchased Power Cost Recovery Clause charges.

Q. Are FPL's nuclear units part of a larger fleet?

A. Yes. FPL and its affiliates collectively comprise the fourth largest nuclear operator in the United States, owning and operating eight nuclear units at five locations. FPL's affiliates own interests in and operate the Duane Arnold Energy Center in Iowa, the Point Beach Nuclear Plant, Units 1 and 2, in Wisconsin, and the Seabrook Station in New Hampshire.

Q. Please describe the benefits to FPL's customers of being affiliated with a larger nuclear fleet.

A. There are important benefits and synergies to FPL and its customers from the affiliation with a larger nuclear fleet. I will focus on six such benefits. All of these benefits to FPL and its customers and the local communities in Florida

are not available to the operator of a smaller nuclear fleet or a single nuclear site.

First, FPL is able to use operational experience from its affiliate plants and incorporate lessons learned to the FPL nuclear fleet. By doing so, FPL has made improvements that have increased equipment reliability, which helps prevent events from occurring, resulting in improved nuclear safety and plant reliability. FPL also receives operational experience in occupational health and safety matters that improve plant industrial and radiological safety.

Second, FPL continuously pursues standardization of programs and procedures, where applicable. This allows the sharing of data on best practices to the benefit of FPL's nuclear fleet, improving nuclear safety, efficiencies, and reducing costs.

Third, FPL is able to leverage contracts for goods and services across the nuclear fleet. This results in more favorable pricing and contract terms for its nuclear fleet.

Fourth, FPL is able to maintain and have access to a staff of subject matter experts to address specific technical or regulatory issues that may arise at its nuclear fleet. It is increasingly difficult and expensive for smaller nuclear operators or operators of single nuclear units to retain such in-house expertise.

Fifth, in a similar manner, each of FPL's and its affiliates' nuclear plants maintains an inventory of spare parts. This enables plants to share critical spare parts in some circumstances.

Sixth, with the increased demand for skills in the nuclear industry and the increase in retirements associated with an aging workforce, recruiting and retaining talent has become a significant challenge. One of the key benefits of operating a large nuclear fleet is the existence of numerous business opportunities for employees to pursue career advancement in our nuclear program in different jobs at different locations.

IV. CAPITAL EXPENDITURES FOR FPL'S NUCLEAR BUSINESS UNIT

Q. Please summarize the principal drivers of capital expenditures for FPL's Nuclear Business Unit.

A. There are two principal drivers of these capital expenditures; meeting regulatory requirements and sustaining long term operations of the nuclear units. To accomplish these goals, FPL invests in equipment to enhance nuclear safety and improve equipment reliability. These investments will allow FPL to maximize fuel savings, enhance system fuel diversity and provide for the safe and reliable operation of its nuclear units through their renewed license terms.

Meeting Regulatory Requirements

Q. Please explain the projects required to meet NRC requirements that FPL anticipates implementing through 2018.

A. FPL plans to implement projects to meet NRC requirements, such as the fire protection plan, containment sump performance, and regulatory commitments made in order to obtain license renewal for St. Lucie and Turkey Point.

Q. Please describe FPL's efforts to meet NRC requirements for the fire protection plan.

A. FPL will implement modifications necessary to comply with requirements that licensed nuclear units have a fire protection plan that ensures structures, systems and components important to safety be designed and located to minimize the probability and effect of fires and explosions. The fire protection plan is necessary to comply with 10 Code of Federal Regulations ("CFR") 50 Appendix R.

Compliance with 10 CFR 50 Appendix R represents a significant expenditure of resources. It has resulted in increased regulatory enforcement and rule "refinements." However, 10 CFR 50.48(c) allows licensees to voluntarily comply with risk-informed performance-based fire protection in National Fire Protection Association 805 ("NFPA 805") as an alternative to complying with Appendix R or the requirements in the licensee's fire protection license conditions. FPL has determined that a transition to NFPA 805 is beneficial.

Use of NFPA 805 will resolve outstanding fire protection issues as well as clearly define the basis for the fire protection program. The advantages of using NFPA 805 are:

- a risk-informed performance based licensing basis;
- a well-defined stable licensing basis that is accepted by the NRC;
- tools to allow risk informed performance base changes in the future; and
- enforcement discretion for issues found during the transition.

Completion of the NFPA 805 projects results in full compliance with 10 CFR 50.48(c) for transitioning stations. This includes all supporting engineering evaluations, procedures, training and modifications. FPL estimates the cost of these modifications to be approximately $68 million in capital expenditures from 2014 through 2018, of which $40 million will be incurred in 2016 through 2018.

Q. Please describe FPL's efforts to meet NRC requirements for the Containment Sump performance.

A. Nuclear power plants are required by 10 CFR 50.46 to have an emergency core cooling system to mitigate various design basis accidents. The NRC identified a potential susceptibility of Pressurized Water Reactor ("PWR") recirculation sump screens and associated flow paths to debris blockage during loss-of-coolant accidents that require recirculation operation. This issue, classified as Generic Safety Issue 191, might affect the long-term

operation of the emergency core cooling system or containment spray system. The accumulation of debris has the potential to impede successful operation of the emergency core cooling system and containment spray system pumps. Debris can also pass through sump screens and affect equipment (such as valves, pumps, and nuclear fuel assemblies) downstream of the strainers. NRC Generic Letter ("GL") 2004-02 "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors" requires all operators of PWRs including FPL to evaluate and take necessary actions to ensure system functionality.

As a result, St. Lucie and Turkey Point were required through NRC GL 2004-02 to perform a mechanistic evaluation of the recirculation functions and, as appropriate, make necessary modifications to the containment sump strainers and screens to ensure system functionality. FPL estimates the cost of these modifications to be approximately $29 million in capital expenditures from 2014 through 2018, of which $20 million will be incurred in 2016 through 2018.

Q. Please discuss the capital expenditures FPL must make in order to meet NRC commitments for St. Lucie and Turkey Point license renewals.

A. The NRC approved extended licenses for Turkey Point in 2002 and St. Lucie in 2003, securing low-cost energy for FPL's customers for an additional 20 years at each unit. As a requirement of receiving the operating license extensions, FPL had to make certain commitments requiring capital

expenditures. The activities associated with the St. Lucie license renewal include, but are not limited to, installation of equipment coatings and completion of preventative maintenance optimization programs. For example, St. Lucie has 24 aging-management programs with associated commitments made within each program. Additionally, the NRC will undertake inspections, including document reviews and visual plant inspections, to determine whether St. Lucie and Turkey Point have met their commitments. FPL estimates the cost of these modifications to be approximately $43 million in capital expenditures from 2014 through 2018, of which $18 million will be incurred from 2016 through 2018.

Sustaining Long Term Operations for Nuclear Units

Q. Please explain the St. Lucie and Turkey Point Long Term Reliability projects.

A. FPL continues to implement long term equipment reliability projects that address ongoing component issues as part of the day to day operations of St. Lucie and Turkey Point. The primary components addressed in these projects consist of replacement and refurbishment of pumps, motors, valves, breakers and turbines. FPL estimates capital expenditures of $304 million on these projects from 2014 through 2018, of which $152 million will be incurred from 2016 through 2018.

Additionally, St. Lucie has implemented the Reactor Coolant Pump ("RCP") Motor Refurbishment Program, which is a multi-year effort to replace and refurbish the original RCP motors at St. Lucie to ensure safe and reliable operation into the renewed license term. FPL estimates the cost of this replacement to be approximately $79 million in capital expenditures from 2014 through 2018, of which $25 million will be incurred from 2016 through 2018.

Q. Are FPL's projected nuclear capital expenditures from 2014 through 2018 necessary and reasonable?

A. Yes. FPL's 2014-2018 capital expenditures include costs to implement projects to meet NRC requirements and to invest in equipment to enhance nuclear safety and improve equipment reliability for long term operation of the plants. This investment will be necessary to ensure FPL's nuclear facilities maximize fuel savings, enhance system fuel diversity, and allow for the safe and reliable operation of its nuclear units through their renewed license terms.

Q. Does the forecast for 2017 Test Year O&M costs for the Nuclear Business Unit exceed the Commission's benchmark using 2013 as the benchmark year?

A. No. FPL's 2017 Test Year O&M for Nuclear Production does not exceed the Commission's benchmark, using adjusted 2013 as the benchmark year. In fact, FPL's 2017 Test Year O&M for Nuclear Production is less than the 2013 actual amount.

Q. What efforts has the Nuclear Business Unit implemented to reduce O&M costs?

A. In conjunction with the initiative known internally as Project Momentum, the Nuclear Business Unit also implemented the Continuous Improvement Process ("CIP"), which engages employees to develop and implement solutions to operate more efficiently without compromising safety. This effort supports the SIC/LO, which is a core part of the NEM, and has resulted in the implementation of several creative and dynamic ideas that benefit the customer. Some examples include:

- Implementation of the Electronic Work Package which reduces unnecessary processes and data entry for craft labor. By eliminating unnecessary and time consuming administrative steps (i.e., printing, assembling, preparation and close out steps for work-order packages), it streamlines planning and executions, reducing overall costs to the customer.
- Centralization of the outage function, which streamlined outage planning and utilizes best practices to achieve milestones and commitments to plan. In years past, FPL achieved outage goals less than 25 percent of the time. In 2014, FPL achieved outage goals 75 percent of the time. Consistently achieving milestones minimizes unexpected increases to costs. Additionally, achieving outage goals reduces outage duration and improves the capacity factor and equivalent availability factor for the nuclear fleet.

- Addition of an innovative approach to training by implementing a distance learning capability, which improved training and reduced travel burden and costs.
- Insourcing of work to better leverage the skills of our team throughout the fleet, which demonstrates one of the benefits to being part of a large nuclear fleet.

Finally, FPL has completed a fleet reorganization that resulted in reducing staffing levels for the 2017 Test Year to approximately 19.5 percent below 2013 levels. These are just a few examples of how FPL has created benefits through utilizing CIP in identifying ways to operate more efficiently and create value for its customers. At the same time, safety has not been negatively impacted.

Q. Does this conclude your direct testimony?

A. Yes.

MR. DONALDSON: Mr. Goldstein, do you also have exhibits to your direct prefiled testimony MG1 through MG5.

THE WITNESS: Yes.

Q Were these prepared under your direction or supervisor?

A They were.

MR. DONALDSON: Madam Chair, I would also like to note that these exhibits have been pre-identified on staff's comprehensive exhibit list as Exhibits 62 through 66.

CHAIRMAN BROWN: Thank you, duly noted.

MS. BROWNLESS: Would you please provide --

CHAIRMAN BROWN: Nope. At this time, we will turn to staff.

MS. BROWNLESS: Thank you.

CHAIRMAN BROWN: To authenticate the exhibits.

EXAMINATION

BY MS. BROWNLESS:

Q Good evening, Mr. Goldstein?

A Good evening.

Q Have you had an opportunity to review Exhibit 579, and the staff exhibits identified with your name?

A Yes.

Q Okay. Did you prepare these exhibits or were they prepared under your supervision?

A Yes.

Q Are these exhibits true and correct to the best of your knowledge and belief?

A Yes.

Q Would your answers be the same today to those responses?

A I would.

Q Okay. Are there any portions of your listed exhibits that are confidential?

A No.

Q Thank you.

A Thank you.

CHAIRMAN BROWN: Thank you for being clear.

MR. DONALDSON: Thank you.

BY MR. DONALDSON:

Q Mr. Goldstein, would you please provide your summary to the Commission?

A Yes, I will.

Good evening, Madam Chairman and Commissioners, thank you for the opportunity to introduce FPL's nuclear operations, and the progress we have made in the last few years. Which take what was already a strong operation, and make it even stronger by

increasing our safety, reliability and generation efficiency.

FPL's nuclear plants have always been a source of safe, reliable and clean base-load energy that provides significant value to our customers in terms of fuel savings, system reliability, fuel diversity and reduced greenhouse gases. Specifically, our sites prevent the release of over 15 million tons of CO2 per year, which is equivalent to removing approximately three million cars from the roads. As a reference, that's about one out of every seven cars registered in Florida.

We have also delivered over $17 billion in fuel savings since 2000, and according to a recent Nuclear Energy Institute study, our sites deliver 1.4 billion dollars in economic value to the state each year.

Since our last rate case, we have made several changes to improve our performance and provide even better value to our customers. Under our continuous improvement program we have developed and implemented solutions to operate more efficiently without ever compromising safety or reliability. I would highlight three such changes, we have centralized functions where fleet knowledge and Best Practices are most applicable,

and where the work can be done centrally, primarily engineering and outage planning.

We have standardized and streamlined other key functions which need to be performed at our sites, primarily maintenance, work planning and training. To take advantage of Best Practices in our fleet and learnings from our peers in the industry. And finally, we make ongoing process improvements in all functions drived by a bottom-up approach to identifying ways to do work better, faster and more efficiently. The result is that our 2017 test year O&M is 11 percent lower than 2013's actual spending and 17 percent -- I am sorry, 16 percent below the bench -- the Commission's benchmark, which is a remarkable achievement.

Another way we judge our performance is by an index provided by the Institute of Nuclear Power Operations, or INPO, which develops an index of a number of key indicators of overall plan performance and generation. Since 2012, FPL has substantially improved its INPO index and increased generation. And finally, safety is very important to us, and FPL's nuclear personnel safety ranks in the industry top quartile as measured by impose total industrial safety accident rate or, TISA rate. Going forward, we will continue to invest in long-term liability projects that improve the

day-to-day operations of our fleet. We have seen steady improvements in our equipment reliability as a result of the investments we have already made. We are also investing the necessary and reasonable capital to meet all regulatory requirements and to sustain our long-term operations and continue to provide our customers with the substantial benefits I have already mentioned. In summary, FPL's nuclear power plants are, and with our plan, will continue to be, a source of safe, reliable and clean base-load energy for our customers going forward. That concludes my summary, thank you.

CHAIRMAN BROWN: Thank you.

MR. DONALDSON: I tender him for cross.

THE COURT: Thank you. Good evening, Mr. Sayler. Sale say.

MR. SAYLER: Good evening, Madam Chairman, I am glad I stuck around, this is my witness. Otherwise I would have probably been going after -- at the end of the line at the caboose.

EXAMINATION

BY MR. SAYLER:

Q Good evening, Mr. Goldstein, how are you this evening?

A Good evening, I am welcome, how are you?

Q Excellent, you have been in your current role

as VP of finance since 2011, is that correct?

A Yes.

Q All right. And is this your first time testifying before this Commission?

A It is.

Q All right. And in your responsibility of VP of finance for FPL and NextEra Energy nuclear fleet, is that correct?

A That's right.

Q All right. So that means that, in addition to NextEra's merchants fleet, you would have financial responsibility over Turkey Points 3 and 4 and St. Lucie one and two?

A That's correct, we operate the fleet as one fleet for both FPL and near.

Q All right. And does that also include the plan Turkey Point 6 and 7?

A It does.

Q Okay. On page three of your testimony, line 14,?

A Yes.

Q It says your oversight includes strategic planning process which sets priorities for the next three years? What kind of priorities?

A We review the key objectives for the fleet,

and work as a fleet to establish what the main things that we need to accomplish are during that period. And we have our leadership team get together, and based on the objectives that we have, work to establish. Usually about 10 or a dozen strategic priorities that are commonly held cross the fleet, in which then, our work is based on.

Q So that's not just limited to the Florida Power & Light units, it's fleet-wide, is that correct?

A That's correct.

Q All right. And when you are thinking about the strategic priorities, do you come up with a budgeted amount for those -- each of those three years?

A In some cases, where that's appropriate, there might be a budget for a set of activities. In other cases, it might be work that is the focus of our efforts of people who are already employed by the fleet.

Q Okay. So some of it would be just maintenance upgrades, things of that nature, some would be potentially new projects?

A That's right.

Q All right. And is your horizon limited to three years or do you have a longer one?

A We generally look out three to five years, but obviously the most fundamental work is in the, you know,

the closest in two to three years.

Q All right. And when it comes to Turkey Point 3 and 4, are you familiar with the hypersaline water issue with the cooling canals?

A I am.

Q All right. And would that cost, related to that project, come underneath your portfolio?

A The cost related to that with come underneath portfolio however, none of the cost associated with the salinity work are in our base rates.

Q Okay. And -- okay, so you are familiar with that consent order, right?

A I am.

Q Okay. And it's your testimony that, in this proceeding, that any of the involuntary expenditures associated with that consent order, are not being covered through base rates in this proceeding?

MR. DONALDSON: I'm sorry, let me object to the phrase of involuntary, so?

CHAIRMAN BROWN: Mr. Sayler.

MR. SAYLER: Yes?

CHAIRMAN BROWN: Can you rephrase the question --

MR. SAYLER: Sure.

BY MR. SAYLER:

Q The expenditures that FPL will have to expend to comply with the consent order, were those voluntary or not voluntary?

A I am sorry what would you mean by voluntary? I am not sure how to interpret that word.

Q Okay. I will move on to my next question. As part your planning horizon, are expenditures related to the CCS included in that three year horizon for you?

A The work associated with the canals, as with other parts of our plants, are included in our plans, but to clarify, there are no costs associated with the complying with the consent order, which were in our base rates.

Q Okay. Now, over the next three years, if you know it, do you have a ballpark figure for those compliance costs?

MR. DONALDSON: I'm going to object, I believe that the witness already stated that that's all being taken care of in another docket?

CHAIRMAN BROWN: That's true, objection sustained.

MR. SAYLER: All right.

BY MR. SAYLER:

Q And which docket would that be in?

A I believe it's called the ECRC document --

docket.

Q Okay. Thank you.

And starting on page 17 of your testimony, you described a number of nuclear business unit capital expenditure costs?

A I do.

Q The first one, starting on page 18, is related to a national fire protection association, NFPA 0 -- or 805?

A That's right.

Q And that's one of your projects that you are currently working on for St. Lucie?

A We are working on that for St. Lucie and Turkey Point.

Q Okay. And you did testify that you are also responsible for the oversight of the Turkey Point 6 and 7 unit costs, is that correct?

A That's right.

Q And are any of those costs being recovered through this base rate proceeding?

A No, sir.

Q All right. Thank you. That's all my questions.

A Thank you very much.

CHAIRMAN BROWN: Thank you, Mr. Sayler. Mr.

Moyle.

MR. MOYLE: Thank you, I do have some questions. I will try to be succinct.

CHAIRMAN BROWN: I figured you did.

EXAMINATION

BY MR. MOYLE:

Q Sir, this is -- I am John Moyle, I represent the industrial power users group, I am not sure we've had a chance to meet, but I have some questions for you. You served as the chief financial officers for two public companies previously; is that right?

A Yes, sir.

Q Which two companies?

A One was called Vlasic Foods International and one was The Great Atlantic & Pacific Tea Company.

Q So you are in the food business? With both of those food products.

A One is a food manufacturer, and one is a grocer, yes.

Q With respect to Mr. Sayler's questions about your strategic planning, are you involved with Turkey Point 6 and 7, is that part of your strategic planning?

A The answer is yes, although the amount of -- our strategic planning is more focused on the operations of our fleet, and so the amount of attention our

operating fleet places on 6 and 7 is minimal.

Q Okay. Do you know if your company continues to plan to move forward with Turkey Point 6 and 7, as we sit here today?

A I believe our company has made statements about its plans, and I really have nothing to add to that.

Q And so, the plans are to move forward or not? With respect to the statements, if you know?

A I believe I answered your question, I think you can read the public statements of the company.

Q Okay. Well, do you know what they say?

MR. DONALDSON: Well, let me just object, none of that actually is in his testimony, and so it's beyond the scope.

MR. MOYLE: He says he is in charge of strategic planning, he just answered. He is involved in 6 and 7, and I just was trying to get him to say, okay, is the plan to move forward or not. He can say yes, planned to move forward, no, it's not, but he is telling me, oh, it's a statement, go read the statement.

MR. DONALDSON: And it's not in base rates, he already testified about that with OPC's Counsel.

CHAIRMAN BROWN: I am trying to decipher the

relevancy given his earlier testimony. Maryann.

MR. MOYLE: Well, I can help.

CHAIRMAN BROWN: How?

MR. MOYLE: Okay, so I am going to ask him about the cooling canals, and whether 6 and 7 are going to use those cooling canals. And I think we just got done answering some questions about the cooling canals, so that's part of the nexus.

CHAIRMAN BROWN: FPL.

MR. DONALDSON: There is an entire nuclear cost recovery docket that is associated with what's going on with Turkey Point 6 and 7, and I believe Mr. Moyle may have participated in that docket on numerous occasions. And so whatever is taking place with respect to how Turkey Point 6 and 7 may be constructed, is properly vetted in that docket, and is not a subject of this base rate proceeding.

CHAIRMAN BROWN: Hold on one moment, my trusty adviser.

MS. HELTON: Madam Chairman, it's my understanding that there is no cost recovery with respect to the cooling towers in this case.

CHAIRMAN BROWN: Objection sustained. Mr. Moyle, can you move along with your testimony -- direct -- cross?

BY MR. MOYLE:

So, what do you do in the strategic planning process?

A Well, as I said earlier, our strategic planning process is, we review the objectives of the fleet and we have the leaders of the fleet come together, look at the different initiatives that might be undertaken and we work together to agree on what those initiatives should be. The goal is to make sure that we both have clear priorities, and that they are commonly held so that the actions of the sites and the people in the fleet are able to accomplish those goals.

Q Do you -- so you were employed by both Florida Power & Light and NextEra resources, you have joint employers?

A I think I am technically just employed by Florida Power & Light. I don't believe that was articulated clearly in my testimony.

Q And you also manage the fleet, so something that's happened at Seabrook, you may have ideas and help Seabrook, correct?

A Yes, we find that there is a lot of sharing of ideas across our various -- our five sites, which help each of the sites, so to your point, if there is an activity at Seabrook, something that's a good idea, it can be shared with the Florida sites, something that's a

challenge, the Florida sites can help out or versa-versa.

Q Okay. So, let's just assume from my question that Seabrook has problem XYZ, okay, when you -- I assume that sometimes happens, when a nuclear power plant has a problem, they will call you and say, hey, can you help us with this, is that right?

A Yes, and it goes even further. We meet as a fleet daily, and so there is sharing across the five sites. As noted in my testimony, there is tremendous benefits to having multiple sites and different experiences, and therefore, the opportunity to learn and share and that goes both ways.

Q So, you guys meet daily to review fleet activities?

A Yes, sir.

Q Okay. So how do you account for your time with respect to work on Turkey Point in St. Lucie, which are the two units under FPL's flag, vis-a-vis Seabrook and Duane Arnold and these other nuclear units that you have?

A Under the rulings of the Commission, we identify people supporting fleet wide activity if I am too close, just tell me, I apologize.

CHAIRMAN BROWN: You came too close.

THE WITNESS: Is this okay from here?
CHAIRMAN BROWN: That's okay.
THE WITNESS: Under the rules of the Commission, we identify people such as myself who support all the fleet activities, and those peoples' costs are separated based on the number of units. We have four units in Florida and four units outside Florida, so those costs are split 50-50.
BY MR. MOYLE:
Q So, you don't endeavor to try to capture your time, you just do it based on the units, regardless of whether you had to spend 90 percent of your time on Seabrook, you know, in one year compared to 10 percent, it's just a rough calculation?
A Well, it's a calculation based on the rules of the Commission, and for people who are supporting fleets wide activities, that works out to be compare. For individuals who are working on specific projects, such as an engineer who might be working on a Seabrook project or might be working on a St. Lucie project, their time is specifically captured and charged to the work that they are doing.
Q And you tell the Commission in your testimony that protecting the public health and safety is, I

guess, is the most important aspect of your job, is that fair?

A Safety is top priority.

Q Okay. And you would agree that, to the extent that saltwater intrusion gets into the Biscayne aquifer, which service as a drinking water source for Miami-Dade County, that that could potentially be a safety issue?

MR. DONALDSON: Let me object, it assumes facts not in evidence, and I would ask Mr. Moyle to point somewhere within his testimony where he is referring to hypersaline plumes and water and things of that nature.

CHAIRMAN BROWN: Mr. Moyle.

MR. MOYLE: So, I think the facts are in evidence because we had testimony yesterday from Mr. Silagy about the hypersaline plume, and we have the consent order, and we have other information.

CHAIRMAN BROWN: Can you point me where this witness addresses that, please.

MR. MOYLE: Sure. He says -- he says on page eight, line -- page eight, line nine.

CHAIRMAN BROWN: Page eight.

MR. MOYLE: Line eight, I guess, nuclear safety is by far the most important aspects of owning and operating FPL's nuclear fleet. FPL

takes its commitment to protect the health and safety of the public very seriously. So my question is, given their obligation or commitment to protect the health and safety, whether that situation with the saltwater plume, and potentially getting into the drinking water aquifer, would fall within what they do to protect the public health and safety.

CHAIRMAN BROWN: Mr. Donaldson.

MR. DONALDSON: And again, that assumes facts not in evidence as phrased, and Mr. Silagy ended up testifying about what was known about the cooling canals already. So, it's not actually in his testimony, and so delving into that goes beyond the scope of what he has filed prefiled testimony on.

MR. MOYLE: The consent order is in evidence, I mean, we can spend a lot of time going and pinpointing, or he can answer the question, whatever your preference is?

CHAIRMAN BROWN: Just one moment.

Maryann?

MS. HELTON: I was afraid you were going to do that.

CHAIRMAN BROWN: You knew I was going to do it.

MS. HELTON: I guess, where are you going that you didn't get to go to with Mr. Silagy yesterday?

MR. MOYLE: I just want to ask him whether, in his scope of work, whether that would fall within his auspices if he considers potential impact on the drinking water aquifer for people in Miami-Dade to be a potential health and safety issue. I mean, he may view it as not.

MS. HELTON: The hour is late, and I am trying to figure out where this all falls with respect to the petition they filed.

MR. MOYLE: Well, I -- my understanding of this is that, when someone gets on the stand and testifies and they say something, that they open themselves up to cross-examination to pry a little bit and say, what do you mean by this, is this included in that, is this not included in that, because they have put it at issue and he has put it at issue here saying that his -- the most important thing is protecting the health and safety. So, I want -- I think I should be able to ask the follow-up question to ask whether he believes that's part of his responsibility.

MS. HELTON: Madam Chairman, I think he should be able to go down a short line with respect to

that area.

CHAIRMAN BROWN: Can you go down a short line?

MR. MOYLE: I understand with a capital S, yes.

CHAIRMAN BROWN: Okay.

MR. DONALDSON: So can you rephrase the question or state it again?

BY MR. MOYLE:

Q Do you need me to repeat the question for you, or do you kind of get the gist what I am asking?

A I think I understand the gist of the question, so let me try to address, this is a very, very important subject. I don't want to make light of it, and I am glad to have the chance to answer.

Q Thank you.

A First, the specific testimony here refers to nuclear safety which is radiological safety. And that is, if there is a list that would probably be higher than other safety but they are kind of co-equal. The public safety is the most important thing we do in nuclear, and we spend a great deal of time on that.

It's always been known that there was a hypersalinity in the area around what became the Turkey Point canals. That was known in the early '70s when they were, as Mr. Silagy described. And we -- we worked

very closely with the federal government with local and state officials throughout to design the canals and to operate them. We have worked very collaboratively over the last -- nearly a decade specifically to establish monitoring, and we self identified the issue where the hypersaline plume was beginning to migrate -- was migrating to the west. It had always been known that there would be some migration, and as Mr. Silagy noted, an interceptor ditch was put in to stop that migration from going too far west. It's turned out that the water has gone further -- deeper than had been anticipated, and, as I noted, we identified that ourselves and have worked collaboratively with the Department of Environmental Protection, local Miami-Dade officials to put in place a plan by which we will remediate that and fully address that over the next 10 years.

Q Thank you, and when you say it goes deeper, that's deeper into the aquifer?

A It -- let me be clear. It's gone deeper than what was anticipated, but in no case has it gotten into drinking water. And in no case has it caused any harm to anyone, and the steps that we are taking will cause that no harm to ever happen. Let me be very clear, safety is the top of our list. We have always taken environmental safety very, very seriously, and that's

why we have worked so closely to make sure we come up with the right solution, and we take the time and effort to make sure we don't have any -- any threats to the public safety at all.

Q And, sir, I am not disputing that. I mean, I appreciate your answer. And I just want to kind of understand that's part of your duties and responsibilities, correct?

A Yes, sir.

Q Okay. Thank you for that.

A Thank you.

CHAIRMAN BROWN: Mr. Moyle, we are at 8:45 at the hour right now. You have a few more questions, I am assuming?

MR. MOYLE: Yes, ma'am.

CHAIRMAN BROWN: I think now is a good time to take a break, I mean a break until tomorrow.

MR. MOYLE: Okay. Great.

CHAIRMAN BROWN: So, we are going to take a break until tomorrow morning. We will reconvene again at 9:00 a.m. Again, emblazon that in your head, 9:00 a.m., not 9:30 and I hope you all have a good night tonight. Thank you.

(Transcript continues in sequence in Volume 10.)

CERTIFICATE OF REPORTER

STATE OF FLORIDA)
COUNTY OF LEON)

I, DEBRA KRICK, Court Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED this 24th day of August, 2016.

DEBRA R. KRICK
NOTARY PUBLIC
COMMISSION #GG015952
EXPIRES JULY 27, 2020