BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 140009-EI
FLORIDA POWER & LIGHT COMPANY

MARCH 3, 2014

IN RE: NUCLEAR POWER PLANT COST RECOVERY FOR THE YEAR ENDING DECEMBER 2013

TESTIMONY OF:

ALBERT M. FERRER

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF ALBERT M. FERRER

DOCKET NO. 140009-EI

March 3, 2014

Q. Please state your name and business address.

A. My name is Albert M. Ferrer. My business address is 800 Kinderkamack Road, Oradell, New Jersey 07649.

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

A. I am employed by Burns and Roe Enterprises, Inc. (BREI) as Vice President.

Q. Please describe your educational background and professional experience.

A. I hold an M.S. in Nuclear Engineering from New York University and a B.S. in Mechanical Engineering from Manhattan College, with honors. I have been a Vice President of BREI since 2005 providing management, executive leadership, and oversight for engineering consulting services performed by BREI.

Q. Please describe BREI.

A. BREI is an engineering, procurement, construction, operations, and maintenance company that provides services to private and governmental power industry clients worldwide.

BREI provides engineering, design and consulting services to the nuclear, renewable and fossil power industry. Services provided include owner's engineer, independent engineering, due diligence, acquisition services, uprate analyses, life extension studies, engineering, design, procurement services and construction (EPC) oversight, contract evaluation and EPC project management.

BREI's nuclear experience includes both some of the earliest U.S. commercial nuclear power plants and some of the most recent and innovative nuclear power projects. BREI has been involved in the design of eight commercial nuclear power plants. Additionally, for the use of the U.S. Department of Energy (DOE), BREI performed independent due diligence investigations for new U.S. nuclear plants in support of the DOE's utility loan guarantee project applications. BREI also participated in supporting the development of three combined Construction and Operating License Applications for new nuclear power plants in the southeast U.S.

Q. What was your professional experience prior to BREI?

A. Prior to my employment at BREI, I was Senior Vice President and Managing Director for Stone and Webster, with responsibility for the firm's Strategic Management, Markets and Regulatory, and Project Finance Services practices. During my career at Stone and Webster, I held positions ranging from project engineer to manager of major EPC power plant projects involving site feasibility, environmental impact evaluations, conceptual engineering, detailed

design, procurement, cost and estimating, construction engineering, construction management, and start up and testing of a variety of technologies including coal plants, simple cycle and combined cycle gas plants, nuclear plants, geothermal plants, and small hydro facilities. As a project engineer or project manager, I was responsible for cost and scope control, planning, coordinating, scheduling and supervising engineering activities for various nuclear projects, as well as managing major subcontractors with large work forces. I also provided expert testimony at hearings before the Nuclear Regulatory Commission's (NRC) Advisory Committee on Reactor Safeguards involving the construction permit process for nuclear plants.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to summarize an independent review conducted by myself and other BREI senior nuclear power professionals under my direction regarding Florida Power & Light Company's (FPL) execution of the Extended Power Uprate (EPU) related activities during 2013. The purpose of this independent due diligence review was to determine whether FPL's execution of project activities in 2013 was reasonable and prudent. In conducting the review, we applied the prudence standard that has been used by the Florida Public Service Commission (Commission), which is whether FPL's management actions and decisions were within the range of what a reasonable utility manager would have done, in light of the conditions and circumstances which were known, or should have been known, at the time the decisions were made.

Q. Please describe the major areas of your review.

A. BREI reviewed the following areas:

- Project Implementation Scheduling and Organization;
- Close-out Engineering and Design Work Control Process;
- Outage Execution; and
- Close-out Execution.

Q. Please summarize your testimony.

A. Based on the review conducted by the team I lead, FPL's execution of project activities in 2013 was reasonable and prudent. FPL's EPU project management exhibited reasonable and prudent oversight of the EPU project, including oversight of its contractors. Project close-out plans were well developed, planned EPU work was completed on or close to schedule, and power output increases exceeded engineering estimates. Overall, FPL's performance was comparable to, or better than, other large construction projects.

Q. What is the basis for your conclusions regarding FPL's oversight of the EPU project?

A. My conclusions are based on my personal experience gained over the course of my career managing major construction projects and large contracted work forces, as well as my and my team's extensive review of EPU project documentation and personnel interviews. My team was comprised of senior level personnel with experience in nuclear power plant engineering, nuclear plant licensing, nuclear power plant operations and project controls. Our

review built upon prior years' reviews, interviews, and site visits. We reviewed project policies and procedures, technical reports, letters, procedures, schedules, cost reports and other project documents. We also reviewed performance metrics (such as key performance indicators), industrial safety reports, corrective action reports, and periodic and special reports to FPL management. In addition, BREI interviewed key EPU project personnel.

Q. Please summarize the conclusions of BREI's review of the EPU project plan, schedule, and organization.

A. FPL prudently managed the EPU project planning and scheduling in 2013. BREI reviewed the processes by which EPU project plans and schedules were developed and revised and determined that FPL used robust project planning and scheduling tools. Additionally, the EPU organization at FPL was appropriately structured to manage the project in an efficient and thorough manner in 2013.

Q. Did BREI review FPL's plans for project close-out?

A. Yes. FPL had developed EPU project close-out plans for both St. Lucie and Turkey Point, including a plan for the disposal of spare or unneeded supplies and equipment. BREI found that the plans addressed the critical elements of a comprehensive close-out program. The plans established a roadmap to close the project with reasonable goals and key milestone dates. They considered lessons learned from other projects and the transition to non-EPU project status.

Q. Please summarize the conclusions of BREI's review of the execution of the EPU outage at Turkey Point Unit 4 that was completed in 2013.

A. FPL succeeded in completing the uprate of its fourth and final nuclear power generating unit in 2013, as planned. Based upon our review, FPL prudently managed the execution of this work. FPL and Bechtel scheduled subcontractors and associated staff to support the outages and subsequently demobilize in a controlled manner.

FPL management appropriately maintained a focus on safety during the execution of the EPU work. FPL also focused on quality and human performance. Bechtel continued to utilize FPL's corrective action program and used it to track and trend issues and to implement corrective actions. Where necessary, resources were added or activities were shifted to others to assure schedules were met.

Q. Did BREI review FPL's incorporation of lessons learned into its 2013 EPU activities?

A. Yes. FPL prudently implemented various cost and time saving lessons learned from the previous outages and closeout activities at Turkey Point and St. Lucie, which have proven to be effective and appropriate. Examples include improvements in the condenser installation sequence, main steam isolation valve assembly process, and outsourcing the drawing update scope of work. These enhancements reduced project cost and helped FPL complete its 2013 EPU project activities on schedule and under budget.

Q. Please summarize the conclusions of BREI's review of project close-ont activities.

A. FPL completed thousands of project close-out activities at both St. Lucie and Turkey Point in 2013, including the methodical demobilization of a large workforce and systematic turnover of the uprated components to the plant operating organization. The Nuclear Regulatory Commission has high expectations related to configuration management which includes the update of final engineering documents, plant drawings, procedures, and other records related to the safe operation of nuclear units. As part of the 2013 close-out process, FPL updated over 40,000 drawings, design basis documents, engineering evaluations, final safety analysis sections, specifications, calculations, and equipment database changes. Based on our review, FPL's close-out activities were performed reasonably and consistent with FPL's close-out plans.

Q. Please summarize your conclusions related to FPL's 2013 EPU project activities.

A. Overall, FPL's management of the EPU project was as good as, or better than, the management of other comparable engineering projects. FPL achieved its objective of completing the EPU project in 2013 by utilizing reliable project planning techniques, effectively managing various separate contractors and a large workforce, implementing lessons learned from prior outages in its final EPU outage, and executing an effective close-out plan.

The Commission should also be aware that FPL's EPU project won major nuclear and construction industry awards. The EPU project won the 2013 Nuclear Energy Institute Top Industry Practice Award and the Power Engineering magazine 2013 Project of the Year – Best Nuclear Project Award, and was a finalist for the 2013 Platts "Construction Project of the Year" Award. The significance of these awards is that FPL's performance of the project was recognized as exemplary in the international nuclear and construction industries.

Q. Does this conclude your direct testimony?

A. Yes.