

State of Florida



## Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

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**DATE:** June 29, 2017

**TO:** Office of Commission Clerk (Stauffer)

**FROM:** Division of Engineering (Ellis, Matthews, Thompson) *BE TT*  
Office of the General Counsel (Murphy) *mm TB TW Cm TH*

**RE:** Docket No. 170122-EI – Petition for exemption under Rule 25-22.082(18), F.A.C., from issuing a request for proposals (RFPs) for modernization of the Lauderdale Plant, by Florida Power & Light Company.

**AGENDA:** 07/13/17 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Brisé

**CRITICAL DATES:** None

**SPECIAL INSTRUCTIONS:** None

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### Case Background

The Florida Public Service Commission (Commission) is the exclusive forum for the determination of need and necessity for additional generating units under the Florida Electrical Power Plant Siting Act (PPSA), as established in Section 403.519, Florida Statutes (F.S.). As part of PPSA, the Commission must take into account whether a unit is necessary given (a) the need for electric system reliability and integrity, (b) the need for adequate electricity at a reasonable cost, (c) the need for fuel diversity and supply reliability, (d) whether the proposed plant is the most cost-effective alternative available, and (e) whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available.

Docket No. 170122-EI

Date: June 29, 2017

The Commission adopted Rule 25-22.082, Florida Administrative Code (F.A.C.), also referred to informally as the Bid Rule, which requires investor-owned electric utilities to issue a request for proposal (RFP) for the selection of generating capacity that would be subject to the PPSA. The RFP process assists in the determination of whether a unit is the most cost-effective alternative by publishing the electric utility's requested needs and opening the process to competitive proposals.

Rule 25-22.082(18), F.A.C., provides an exemption from the requirement to issue an RFP if the Commission finds that certain showings are met by an electric utility. On May 22, 2017, Florida Power & Light Company (FPL or Company) filed a petition to request exemption from the RFP requirement under Rule 25-22.082(18), F.A.C., for its modernization of the Lauderdale plant, which is to be renamed the Dania Beach Clean Energy Center (Dania Beach Project or Project).

The Commission has jurisdiction in this matter pursuant to Sections 366.05 and 403.519, F.S.

## Discussion of Issues

**Issue 1:** Should the Commission grant FPL's petition for exemption from the RFP requirement of Rule 25-22.082, F.A.C., for the modernization of the Lauderdale Plant?

**Recommendation:** Yes. The Dania Beach Project meets the requirements for exemption under Rule 25-22.082(18), F.A.C., by reusing the existing Lauderdale plant site and related facilities for a newer, larger, and more efficient unit. Granting the exemption will not relieve the Company of any requirements during a future PPSA need determination proceeding, including a demonstration that the project is the most cost-effective source of power or whether conversion or renewable generation can mitigate the need for the modernization of the Lauderdale Plant. (Ellis, Murphy)

**Staff Analysis:** Rule 25-22.082(18), F.A.C., states:

Upon a showing by a public utility and a finding by the Commission that a proposal not in compliance with this rule's provisions will likely result in a lower cost supply of electricity to the utility's general body of ratepayers, increase the reliable supply of electricity to the utility's general body of ratepayers, or otherwise will serve the public welfare, the Commission shall exempt the utility from compliance with the rule or any part of it for which such justification is found.

As set forth below, staff believes that the Dania Beach Project meets all three criteria for an exemption from the Bid Rule by reusing the existing Lauderdale plant site and related facilities for a newer, larger, and more efficient unit.

### Project Description

The Dania Beach Project will retire and remove Lauderdale Units 4 and 5 from FPL's Lauderdale plant in Broward County. These units are natural gas-fired combined cycle units in a 2x1 configuration with a combined summer peak capacity of 884 megawatts (MW). The two steam generators were built in 1957 and 1958, respectively, and were converted to combined cycle units with the addition of four combustion turbines installed in 1993. The Dania Beach Project would replace these units with a single natural gas-fired combined cycle unit in a 2x1 configuration with a peak capacity of 1,163 MW with an in-service date of June 2022.

A central component of FPL's argument for the exemption from the RFP requirement is that FPL's reuse of an existing plant site provides numerous economic and qualitative benefits that would be unmatched by any potential RFP respondent. The Lauderdale site currently features access to transmission, natural gas pipelines, and water supply facilities near a major load pocket that can be utilized by the new generating unit. Staff agrees that it is unlikely that a respondent to an RFP could provide similar benefits, but the Commission has the opportunity to formally review these facts in a future PPSA need determination proceeding, as outlined below.

### Lower Cost Supply of Electricity

FPL states that the Lauderdale Units 4 and 5 are at the bottom of FPL's combined cycle fleet dispatch order. Data provided shows that the Lauderdale units had the highest average net

operating heat rates, a measure of fuel efficiency, of FPL's 16 combined cycle units, using approximately 8,000 British Thermal Units (BTU) of fuel per kilowatt-hour (kWh) of energy produced. By comparison, the Dania Beach Project will have a heat rate of approximately 6,120 BTU/kWh, which will result in a considerable fuel savings over the life of the Dania Beach unit compared to the existing Lauderdale units. Staff believes that while RFP respondents may be able to match the fuel efficiency of the proposed Dania Beach Project by using similar generating technologies, they would likely experience higher total costs to acquire a plant site and install the necessary infrastructure such as transmission, fuel transportation and storage, and water supply.

FPL notes an alternative to new generation would be operating the existing Lauderdale units uneconomically to maintain system reliability. However, FPL states that its proposed Project represents a savings of \$400 million in net present value for the Dania Beach Project from fuel savings, O&M savings, and avoided capital replacement costs over this alternative. A second alternative is the construction of additional transmission facilities to import more electricity from outside of the Broward/Miami-Dade area, but the Company asserts that this is likely to be more expensive than the proposed Project. Respondents with proposed facilities outside the Broward-Miami/Dade area would also see higher costs associated with additional transmission needed to deliver the power to customers. Based on the above, the Dania Beach Project meets the standard in that it is likely to result in a lower cost supply of electricity to the Company's general body of ratepayers. Regardless of the alternative considered, the Commission has an opportunity in a future PPSA need determination proceeding to review whether these and other options are the most cost-effective alternative, along with the need for adequate electricity at a reasonable cost.

### ***Increase Reliability***

In its Petition, FPL asserts that no other viable sites are available to economically provide generating capacity within the company's Southeastern Florida service area where the Company is projecting transmission constraints. As noted above, the modernization of the Lauderdale site to the Dania Beach Clean Energy Center would increase the generating capacity of the facility by approximately 280 MW with minimal additional transmission facilities. This will allow FPL to defer or reduce the amount of transmission upgrades necessary to provide reliable service to the area. Therefore the Dania Beach Project meets the standard as it is likely to increase the reliable supply of electricity to the Company's general body of ratepayers. The Commission will still have an opportunity in a future PPSA need determination proceeding to review whether there is a need for the generation for electrical system reliability and integrity, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available to meet reliability needs.

### ***Other Public Benefits***

The use of an existing site with a more efficient unit has several public benefits, including; reduced emissions related to energy production, temporary construction jobs, and reduction of land impact for the facility and related infrastructure. FPL estimates that nitrogen oxides would be reduced by 95 percent and carbon dioxide reduced by 25 percent. Construction of the facility would temporarily create up to 650 jobs at its peak. Similar benefits would be available to an RFP respondent for emissions and construction jobs, but an RFP respondent is unlikely to provide the same benefits associated with reuse of an existing plant site by not requiring

additional land being disturbed for generation, transmission, fuel transportation and storage, or water supply. As a result, the Dania Beach Project meets the standard as it is likely to provide other benefits to the public. As with the other factors, the Commission will still have an opportunity to review these in a future PPSA need determination proceeding, and any other matters the Commission may determine to be relevant.

### **Similar Prior Orders**

The Commission previously has granted exemptions from the Bid Rule for the modernizations of FPL's plants at Cape Canaveral, Riviera Beach, and Port Everglades.<sup>1</sup> The circumstances of each of these were similar in that they involved the replacement of existing power plants with new, more efficient facilities and reusing existing support infrastructure. A primary difference between these prior dockets is that the prior projects were replacing fossil steam generators, while the instant docket replaces older combined cycle units.

### **Conclusion**

The Dania Beach Project meets the requirements for exemption under Rule 25-22.082(18), F.A.C., by reusing the existing Lauderdale plant site and related facilities for a newer, larger, and more efficient unit. Therefore staff recommends approval of FPL's petition for exemption from the RFP requirements of the Bid Rule for the modernization of the Lauderdale plant. Granting the exemption will not relieve the Company of any requirements during a future PPSA need determination process, including a demonstration that the project is the most cost-effective source of power or whether conversion or renewable generation can mitigate the need for the modernization of the Lauderdale Plant.

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<sup>1</sup>Order No. PSC-08-0591-FOF-E1, issued on September 12, 2008, in Docket Nos. 080203-E1, *In re: Petition to determine need for West County Energy Center Unit 3 electrical power plant, by Florida Power & Light Company*, 080245-E1, *In re: Petition for determination of need for conversion of Riviera Plant in Palm Beach County, by Florida Power & Light Company*, and 080246-E1, *In re: Petition for exemption under Rule 25-22.082(18), F.A.C., from issuing request for proposals (RFPs) for modernization of the Port Everglades Plant, by Florida Power & Light Company*.

**Issue 2:** Should this docket be closed?

**Recommendation:** Yes. If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order. (Murphy)

**Staff Analysis:** At the conclusion of the protest period, if no protest is filed this docket should be closed upon the issuance of a consummating order.