

FLORIDA PUBLIC SERVICE COMMISSION

VOTE SHEET

March 27, 2012

Docket No. 110309-EI – Petition to determine need for modernization of Port Everglades Plant, by Florida Power & Light Company.

Issue 1: Is there a need for the proposed modernization of Florida Power & Light’s Port Everglades plant, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519(3), F.S.?

Recommendation: Yes. There is a need for Port Everglades Next Generation Energy Center, taking into account the need for electric system reliability and integrity. Based on the 20 percent reserve margin criterion adopted by FPL pursuant to a stipulation with the Commission, FPL projected in its filing that additional capacity to meet firm peak demand will be needed by the summer of 2016. If FPL did not construct PEEC until 2019, the Company’s projected reserve margin would drop to 18.2 percent in 2017 and 2018 and would be primarily made up of Demand Side Management (DSM) resources.

After accounting for all projected DSM from cost-effective programs approved by the Commission, FPL’s projections at the time of the filing indicate that by 2016, the Company will have a capacity need of 284 MW in order to adhere to FPL’s minimum reserve margin criterion of 20 percent. The timing of FPL’s projected need was largely driven by the expiration of existing purchased power agreements totaling 1,306 MW of summer capacity and the decision to place certain units into inactive reserve mode. PEEC would provide 1,277 MW of capacity to help satisfy the Company’s capacity needs through 2020.

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COMMISSION  
CLERK

COMMISSIONERS ASSIGNED: All Commissioners

COMMISSIONERS’ SIGNATURES

MAJORITY

DISSENTING

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REMARKS/DISSENTING COMMENTS:

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PEEC will also enhance reliability in terms of fuel supply because its coastal location facilitates the receipt of light oil backup fuel via both truck delivery and waterborne transportation. The two delivery alternatives will allow for flexible re-supply of light fuel oil to PEEC in emergency situations. Such deliveries would augment the 72 hour on-site fuel supply. Additionally, PEEC is favorable from a transmission reliability perspective because it reduces the load-to-generation imbalance in the Miami-Dade and Broward County area and also provides voltage support.

## APPROVED

**Issue 2:** Are there any renewable energy sources and technologies or conservation measures taken by or reasonably available to Florida Power & Light Company which might mitigate the need for the proposed modernization of Florida Power & Light's Port Everglades plant?

**Recommendation:** No. FPL's forecast of resource needs takes into account all projected DSM from cost-effective programs approved by the Commission. No additional cost-effective DSM has been identified in this proceeding which could mitigate the need for new generation. Similarly, all anticipated cost-effective firm generating capacity, that will be available from renewable resources and qualifying facilities through 2016, is already reflected in FPL's resource plan. In addition to existing contracts, FPL anticipates that it will secure approximately 110 MW of additional firm purchased power from renewable resources for a total of 740 MW by 2016. FPL is currently in negotiations for firm purchased power from renewable resources potentially totaling up to 180 MW, however, it is unlikely that these negotiations would result in firm capacity any earlier than 2019.

## APPROVED

**Issue 3:** Is there a need for the proposed modernization of Florida Power & Light's Port Everglades plant, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519(3), F.S.?

**Recommendation:** Yes. There is a need for PEEC, taking into account the need for adequate electricity at a reasonable cost. The estimated total installed cost for PEEC is \$1,185 million, in 2016 dollars. PEEC will take advantage of an existing site, existing infrastructure and existing connectivity to FPL's transmission system, thereby eliminating the costs for those components. Furthermore, FPL's analyses show that the resource plan that includes PEEC in 2016 is projected to save customers \$425 million to \$838 million CPVRR as compared to the other available self-build alternatives, and at least \$900 million CPVRR compared to third party-build alternatives. Accordingly, PEEC is projected to provide needed electricity at a reasonable cost.

FPL is considering a number of advanced combustion turbine designs which could impact the overall cost of the PEEC project. For this proceeding, FPL used projected costs and operating characteristics of the "J" combustion turbine technology, with which FPL has no direct experience. Therefore, Staff recommends that FPL report annually to the Commission the budgeted and actual costs compared to the estimated total in-service

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costs of the proposed PEEC project relied upon in this proceeding. If FPL decides to utilize a different combustion turbine design from the one presented in this proceeding, then FPL should include in its annual report the comparative cost advantage of the alternative design chosen. Such a selection would only be made if the projected costs to FPL's customers would be lower as a result of the alternate design.

## APPROVED

**Issue 4:** Is there a need for the proposed modernization of Florida Power & Light's Port Everglades plant, taking into account the need for fuel diversity, as this criterion is used in Section 403.519(3), F.S.?

**Recommendation:** Yes. There is a need for PEEC, taking into account the need for fuel diversity. PEEC will be fueled by natural gas, and to enhance fuel supply reliability, it will use light oil as a backup fuel. Compared to returning to service the existing units at Port Everglades, adding PEEC will improve the plant's heat rate by 35 percent and will improve FPL's overall system heat rate by 1.3 percent. The improved heat rate is projected to reduce FPL's use of natural gas by about 90 million MMBtu and fuel oil by about 10.4 million barrels over a 30-year period. The PEEC project is also projected to reduce emissions of SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> from FPL's system by approximately 40 thousand, 33 thousand, and 22 million tons, respectively, over the life of the project. Regardless of the modernization of PEEC, FPL projects that it will need additional natural gas supply and transportation to meet its overall system requirements by 2017. FPL is currently preparing a request for proposals to meet its future gas transportation needs.

## APPROVED

**Issue 5:** Will the proposed modernization of Florida Power & Light's Port Everglades plant provide the most cost-effective source of power, as this criterion is used in Section 403.519(3), F.S.?

**Recommendation:** Yes. PEEC is the most cost-effective alternative available, as this criterion is used in Section 403.519, F.S. FPL's economic analyses demonstrate that adding PEEC in 2016 is projected to result in customer savings of: (i) \$469 million CPVRR when compared to returning to service the existing Port Everglades units, (ii) \$838 million CPVRR when compared to adding a combined cycle unit at a greenfield site, and (iii) \$425 million CPVRR when compared to adding a combustion turbine unit at a greenfield site in 2016 and deferring PEEC to 2019. In addition, when compared to third party-build alternatives, customer savings are projected to amount to at least \$900 million and may exceed \$1.1 billion.

If FPL did not construct PEEC until 2019, the Company's projected reserve margin would drop to 18.2 percent in 2017 and 2018 and would be primarily made up of DSM resources. Such a scenario was also projected to produce near-term savings as well as overall long-term savings. However, since this scenario does not consider equal levels of system reliability, this scenario may not provide a meaningful economic comparison. FPL's analyses indicate that a short-term purchased power agreement for the years 2016 through 2019, which is projected to maintain the Company's 20 percent reserve margin criterion, could result in near-term savings, but would have net costs over the analysis period ending in 2047. These analyses reflect only a

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standard assumed escalation rate of 3 percent and do not take into account factors specific to the current PEEC project that could substantially increase PEEC's costs if it is deferred.

## APPROVED

**Issue 6:** Based on the resolution of the foregoing issues, should the Commission grant Florida Power & Light Company's petition to determine the need for the proposed modernization of Florida Power & Light's Port Everglades plant?

**Recommendation:** Yes. The addition of PEEC in 2016 will optimize the use of an existing site and is consistent with the Commission's belief that before a utility constructs a new generating unit at a greenfield site, it must consider the feasibility of modernization of existing units.

## APPROVED

**Issue 7:** Should this docket be closed?

**Recommendation:** Yes. Upon issuance of an order granting FPL's petition to determine the need for PEEC, this docket shall be closed. Pursuant to Section 403.519, F.S., the Commission is the sole forum for the determination of need for major new power plants. In making its determination, the Commission must take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply reliability, and whether the proposed plant is the most cost-effective alternative available. The Commission must also expressly consider whether renewable generation or conservation measures taken by or reasonably available to the utility might mitigate the need for the proposed plant. The Commission's decision on a need determination petition must be based on the facts as they exist at the time of the filing with the underlying assumptions tested for reasonableness. It is prudent for a utility to continue to evaluate whether it is in the best interests of its ratepayers for a utility to participate in a proposed power plant before, during, and after construction of a generating unit. If conditions change from what was presented at the need determination proceeding, then a prudent utility would be expected to respond appropriately. In addition, the Commission has an ongoing authority and obligation to ensure fair, just, and reasonable rates for Florida's utilities and ratepayers. FPL should continue to report the status of the PEEC to the Commission in the annual report required under Issue 3.

## APPROVED