BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA INDUSTRIAL POWER USERS GROUP, Appellant, v. FLORIDA PUBLIC SERVICE COMMISSION, Appellee.	Docket No. 110309-EI Case No. _____

NOTICE OF ADMINISTRATIVE APPEAL

NOTICE IS GIVEN THAT, pursuant to rule 9.110, Florida Rules of Appellate Procedure, the Florida Industrial Power Users Group (FIPUG), Appellant, appeals to the Florida First District Court of Appeal the attached order of the Florida Public Service Commission, Order No. PSC-12-0187-FOF-EI, rendered on April 9, 2012.

The nature of the order appealed is an Order Granting Determination of Need. A copy of the Order is attached as Exhibit A.

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CERTIFICATE OF SERVICE

I **HEREBY CERTIFY** that a true and correct copy of the Florida Industrial Power Users Group's Notice of Administrative Appeal has been furnished by U.S. mail on the 8th day of May, 2012, to the following:

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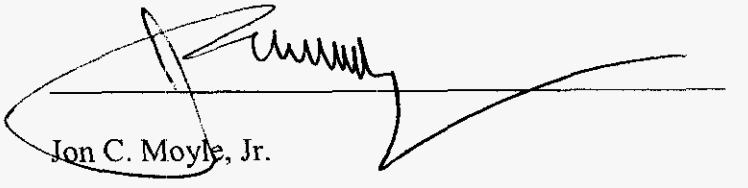

Jon C. Moyle, Jr.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to determine need for modernization of Port Everglades Plant, by Florida Power & Light Company.	DOCKET NO. 110309-EI ORDER NO. PSC-12-0187-FOF-EI ISSUED: April 9, 2012

The following Commissioners participated in the disposition of this matter:

RONALD A. BRISÉ, Chairman
LISA POLAK EDGAR
ART GRAHAM
EDUARDO E. BALBIS
JULIE I. BROWN

ORDER GRANTING DETERMINATION OF NEED

BY THE COMMISSION:

BACKGROUND

On November 21, 2011, Florida Power & Light Company (FPL or Company) filed a Petition to Determine Need for Modernization of Port Everglades Plant (PEEC) pursuant to Sections 366.04 and 403.519, Florida Statutes (F.S.), and Rules 25-22.080, 25-22.081, 25-22.082 and 28-106.201, Florida Administrative Code (F.A.C.).[1] PEEC involves the construction of a Combined Cycle power plant with a summer capacity rating of about 1,277 Megawatts (MW) and a commercial operation date of June 2016. PEEC will replace four dual-fuel fired steam generating units that entered service in the 1960s at FPL's Port Everglades site in Broward County, Florida. The modernized plant's primary fuel will be natural gas, and it will have the capability to burn a light fuel oil as a back-up fuel. On November 28, 2011, the Florida Public Service Commission (Commission) issued its Notice of Commencement of Proceedings for Determination of Need. On December 9, 2011, we issued Order No. PSC-11-0565-PCO-EI, establishing procedure in this docket. On January 13, 2012, the prehearing and hearing were noticed in the Florida Administrative Weekly. On January 17, 2012, FPL and our staff (Staff) filed prehearing statements. A prehearing was held on January 31, 2012. On February 13, 2012, we issued Prehearing Order No. PSC-12-0063-PHO-EI. On February 14, 2012, five days prior to the hearing and after the prehearing conference and the issuance of the Prehearing Order, the Florida Industrial Power Users Group (FIPUG) filed its Petition to Intervene. On February 15, 2012, FPL filed its Response in Opposition to FIPUG's Petition to Intervene. On February 16, 2012, FIPUG filed a Motion for Leave to file a Response to FPL's Motion in Opposition, FPL filed its Opposition to FIPUG's Motion for Leave to file a Response, and we issued Order No PSC-12-0070-PCO-EI, granting FIPUG's Petition to Intervene and denying FPL's Response in

[1] Pursuant to Section 403.519, F.S., a hearing must be held within 90 days, and an order granting or denying issued within 135 days, of a petition for a determination.

EXHIBIT A

Opposition.[2] On February 20, 2012, FIPUG filed a Notice of Positions on Issues to be decided. A hearing was held on February 20, 2012.

As reflected in the Prehearing Order, prior to the hearing, Staff was recommending that the case be stipulated, all but one FPL witness had been excused from the proceeding, and testimony and exhibits, including all of FPL's responses to Staff's discovery, were to be inserted into the record.[3] The one unexcused witness was FPL witness Silva who was available to answer questions on all issues. At the hearing, the Chairman clarified what "taking the case as you find it" meant with respect to the FIPUG intervention. FIPUG argued for latitude while FPL argued that, based on the status of the case, FIPUG's participation should be limited to making an opening statement. "In an abundance of caution," the Chairman ruled that, "we will allow for an opening statement, we will allow for cross-examination of the one witness, and participation as any other party would participate at this juncture today."

Briefs were due on March 2, 2012. On March 1, 2012, FIPUG filed its Unopposed Motion for Extension of Time to file its brief which was granted that day by Order No. PSC-12-0090-PCO-EI. On March 5, 2012, FIPUG and FPL each filed a post-hearing brief.

In its post-hearing brief, FIPUG added an issue[4] that was not included in the Prehearing Order. While the issue itself is not properly before us,[5] FIPUG incorporated the argument associated with the issue by reference in its position on other issues. As such, the arguments have been considered in that context. The substance of FIPUG's Proposed Conclusions of Law, numbered 1 through 3, are considered in our review of the issues. FIPUG's Proposed Conclusions of Law, numbered 4 through 6, suggest procedural errors at hearing; these are more appropriately raised on reconsideration or appeal.

Pursuant to Section 403.519(3), F.S., this Commission is the sole forum for the determination of need for an electrical power plant. In making our determination, we must take into consideration 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, whether the proposed plant is the most cost-effective alternative available, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available. Based on the plain meaning of the statute, a utility need not prevail on every consideration in order for us to determine that there is a need for a proposed electrical power plant.

This Order will reference exhibits and testimony that are contested by FIPUG. However, we find that witness Silva's direct, summary, and extensive cross examination testimony, even when standing alone, provides an adequate basis for us to determine the need for PEEC. Our

[2] The Order Granting Intervention provided that, "[P]ursuant to Rule 25-22.039, Florida Administrative Code, FIPUG takes the case as it finds it as set forth in Order No. PSC-12-0063-PHO-EI, issued on February 13, 2012."
[3] Order No. PSC-12-0063-PHO-EI, at Section VI, pp. 3-4.
[4] FIPUG's Issue 6.
[5] See Order No. PSC-11-0565-PCO-EI at Section VII. C., p. 6.Waiver of Issues.

decision in this case is consistent with the proposed stipulated language that was incorporated in the Prehearing Order.

ISSUES PRESENTED

A. Electric System Reliability and Integrity

We have been asked to determine whether there is a need for the proposed modernization of FPL'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.

FPL

FPL asserts that adding PEEC in 2016 is the most cost-effective power source for customers and that delaying PEEC's in-service date will result in increased costs for construction labor and equipment and the potential for substantial environmental cost increases. The Company argues that PEEC's location within the Company's most concentrated service area, Miami-Dade and Broward County, enhances reliability in terms of transmission load-to-generation balance and fuel supply. FPL contends that adding small capacity additions would ignore this Commission's precedent and fundamental principles of resource planning. The Company asserts that it has a steadily growing need that will reach 1,468 MW in 2021 and that this scenario is consistent with a prior Commission decision in which we approved the need for proposed generation in order to meet forecasted growth beyond the in-service date.

FIPUG

FIPUG asserts that FPL failed to establish and carry its burden of proof that the Company needs an additional 1,277 MW project to maintain system reliability and integrity. FIPUG argues that, at best, FPL has identified only 284 MW of need in 2016, and questions the need for a 1,277 MW project to meet a 284 MW need. FIPUG contends that there are more cost-effective and efficient ways to meet this need, and that FPL failed to pursue such alternatives. FIPUG argues that the reliability need for PEEC is driven by the reduction of purchased power agreements and the increase in wholesale sales. FIPUG asserts that FPL did not explore whether it could avoid the need to build PEEC by simply operating for a brief period of time below a 20 percent reserve margin.

Review

FPL evaluates the adequacy of its resources to meet the needs of its customers considering peak demand and a 20 percent reserve margin criterion. The 20 percent minimum reserve margin criterion is based on the reliability planning standard FPL stipulated to, and this Commission approved by Order No. PSC-99-2507-S-EU. FIPUG expressed concern that FPL

did not explore a departure from its 20 percent criterion. However, the Chairman determined that reliance on the 20 percent reserve margin criterion is "not one of the issues that's taken up in the Prehearing Order," and is therefore beyond the scope of this proceeding.

FPL's projected summer peak demand is based on assumptions developed by industry experts, is consistent with historical experience, and relies on forecasting methods that have been previously reviewed and accepted by this Commission. FPL's load forecasts are reasonable for the purposes of this docket and include adjustments for wholesale loads. Although FIPUG questions the Company's decision to sell 200 MW of power to Seminole Electric beginning in 2014, the Chairman determined that the appropriateness of FPL's wholesale agreements was outside the scope of this proceeding.

FPL's projected summer capacity includes its currently active generation fleet as well as future generation additions that we have already approved. FPL's projected summer capacity also considers the cost-effective removal of older generating units from active service which reduces FPL's summer capacity in 2016. Additionally, the expiration of existing purchased power agreements results in a loss of 1,306 MW of summer capacity by 2016. FPL has determined that renewing its agreements with Southern Company (totaling 931 MW), which expire at the end of 2015, would no longer be economic for its customers. While its initial filing indicated that 375 MW of purchased coal generation from JEA will no longer be available due to Internal Revenue Service regulations in 2016, the Company has since expressed that the purchase may extend beyond 2016. Upon review, we hereby require that FPL continue to report the status of the PEEC to us annually. If the economics of purchased power change, to be more cost-effective, the Company must act accordingly.

Based on current projections of load growth and available firm capacity, FPL's summer reserve margin will fall below 20 percent starting in 2016. Table 1, below, summarizes FPL's projected capacity needs through 2021. The addition of PEEC in 2016 will provide 1,277 MW of capacity to help satisfy the Company's capacity needs through 2020. FIPUG contends that the size of PEEC is in excess of the projected need. However, while the addition of smaller units in 2016 would delay the in-service date of PEEC, the record reflects that this approach is not economic at this time.

Table 1: FPL's Reserve Margin Analysis

	Total Summer Capacity	Firm Peak Demand	Reserve Margin	MW Need
2012	24,679	19,637	25.7%	(1,115)
2013	25,294	19,822	27.6%	(1,507)
2014	26,597	20,971	26.8%	(1,432)
2015	27,553	21,382	28.9%	(1,894)
2016	25,851	21,779	18.7%	284
2017	25,851	21,862	18.2%	384
2018	25,851	21,875	18.2%	400
2019	25,851	22,111	16.9%	683

	Total Summer Capacity	Firm Peak Demand	Reserve Margin	MW Need
2020	25,851	22,437	15.2%	1,074
2021	25,851	22,766	13.6%	1,468

In evaluating the results of the reserve margin criterion analysis, FPL has expressed concern that its reserves over time will become increasingly dependent upon DSM resources, as opposed to generation resources. Without new capacity in 2016, FPL's total reserves would be 4,072 MW of which only 1,536 MW would come from generation resources. Therefore, DSM would provide most of the system reserves. FPL is conducting reliability studies to determine if the 20 percent reserve margin criterion should be supplemented with a minimum reserve margin contribution from generation-only resources. FIPUG did not address potential concerns about greater reliance on DSM.

FPL has also expressed a concern regarding its growing reliance on transmission for importing power into Miami-Dade and Broward Counties (the most populated counties in FPL's territory with the highest concentration of customer load). The two counties together represented more than 40 percent of FPL's total load in 2011, approximately 9,500 MW. The installed capacity in the area, in 2011, was approximately 5,000 MW. Therefore, FPL is largely reliant on power imported into the area which must overcome line losses and is more susceptible to interruptions from natural elements, such as lightning and storms. As such, placing generation near FPL's load center in Miami-Dade and Broward Counties is desirable. If the addition of new generation into Miami-Dade and Broward Counties were delayed beyond 2020, FPL would be forced to incur over $600 million in transmission upgrades to continue reliable service into southeastern Florida. FIPUG did not contest the benefits of locating generation near load centers.

Section 403.519(3), F.S., requires that we consider the need for fuel diversity and supply reliability. PEEC will be capable of burning light fuel oil in the event of a natural gas supply disruption and has on-site storage to allow 72 hours of continuous operation. Additionally, the Port Everglades site, because of its coastal location, allows the receipt of light oil backup fuel via waterborne transportation. The two delivery alternatives facilitate flexible re-supply of light fuel oil to PEEC in emergency situations. FIPUG did not contest the benefits of PEEC's dual fuel capability.

Decision

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 this 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 resources.

After accounting for all projected DSM from cost-effective programs approved by this 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 will provide 1,277 MW of capacity to help satisfy the Company's capacity needs through 2020.

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 will 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.

B. Renewable Energy and Conservation

We have been asked to determine whether there are any renewable energy sources and technologies or conservation measures taken by, or reasonably available to, FPL which might mitigate the need for the proposed modernization of the Company's Port Everglades plant.

FPL

FPL asserts the following: its forecast accounts for all projected DSM from Commission-approved cost effective programs; it has identified no additional cost-effective DSM that might mitigate the benefits of PEEC; additional cost-effective DSM cannot be counted on to contribute to system reliability; and, all anticipated cost-effective firm capacity that will be available from renewable resources and qualifying facilities through 2016 is already reflected in FPL's resource plan. FPL disputes FIPUG's assertion that the Company failed to pursue opportunities for renewable energy contracts with QFs in Miami-Dade and Broward Counties.

FIPUG

FIPUG asserts that FPL failed to adequately explore the availability of renewable energy resources that are available to meet FPL's need, if any. FIPUG argues that witness Silva's first-hand knowledge about the availability of four resources was limited and that FPL has failed to carry its burden of proof regarding renewable energy.

Review

FPL's current DSM projections consider all programs that we have currently approved. Many of the approved DSM programs were based on projections through 2014 only. For purposes of FPL's analyses, the Company assumed that it will continue to achieve its projected incremental level of DSM-based peak demand savings for the years 2015-2025. By 2016, incremental DSM and load management are projected to reduce FPL's peak demand by more than 2,500 MW. FIPUG provided no evidence contradicting FPL's DSM projections.

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. The Company has not received any offers through its standard offer contract that would defer the need for PEEC. FPL is currently in negotiations for additional firm purchased power from renewable resources potentially totaling up to 180 MW; however, it is unlikely that these negotiations will result in firm capacity any earlier than 2019.

At the hearing, FIPUG's counsel discussed multiple QFs located near FPL's load center; FPL presented the following testimony regarding these facilities: Florida Crystals' Kelantan facility is currently under contract with FPL, but only to sell as-available energy. Florida Crystals does not want to commit firm capacity to FPL; the two Broward County waste-to-energy facilities previously sold firm capacity to FPL, but they rejected FPL's attempts to renew their contracts because they preferred to "play the market" by selling their power to the highest bidder each day; and, the Monte nay waste-to-energy facility in Miami-Dade County has consistently chosen to sell its power independently rather than selling to FPL.

FIPUG failed to present persuasive evidence that additional firm generation from renewable facilities will be available by 2016. Moreover, as we found in Order No. PSC-11-0360-PAA-EI, it is unlikely that a respondent to a Request for Proposal (RFP) could provide similar benefits to those provided by PEEC.[6]

Decision

FPL's forecast of resource needs takes into account all projected DSM from cost-effective programs approved by this 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.

C. Adequate Electricity at a Reasonable Cost

We have been asked to determine whether there is 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.

[6] This finding was unopposed by FIPUG or any other entity.

FPL

FPL asserts that there is a need for PEEC taking into account the need for adequate electricity at a reasonable cost. FPL contends that PEEC's estimated installed cost is $1,185 million and that PEEC will take advantage of an existing site, existing infrastructure and existing transmission system connectivity which represent a cost advantage. FPL argues that it has extensive experience building combined cycle power plants (CC) on time and on budget. The Company asks that our determination not be predicated on the use of a particular combustion turbine (CT) design. Instead, the Company asks for flexibility through its analysis and negotiations to select the CT design that best meets customers' needs in terms of reliability and cost-effectiveness. FPL agrees that if it decides to use a CT design other than the "J" technology, the Company will include in its annual report the comparative cost advantage of the alternative design chosen. FPL agrees to make such selection only if the projected costs to FPL's customers would be lower as a result of the alternate design.

FIPUG

By cross reference to arguments raised related to system reliability and whether FPL can serve its projected energy load without PEEC, FIPUG asserts that there is not a need for the proposed modernization taking into account the need for adequate electricity at a reasonable cost. In this context, FIPUG disputes the need to construct PEEC and the proper comparisons to the PEEC resource plan.

Review

For this proceeding, FPL used projected costs and operating characteristics of the "J" CT technology. Although FPL has no direct experience with the operation of "J" CT technology, it has been supplied preliminary operating specifications for the technology. In order to quantify projected fuel/efficiency and other variable costs, FPL used the PMAREA production costing model. The PMAREA model, which simulates the operation of FPL's system on an hourly basis, has been used by FPL in fuel cost recovery proceedings as well as in numerous need proceedings brought before this Commission. FPL's analysis projects that PEEC will save customers $425 million to $838 million cumulative present value revenue requirements (CPVRR) as compared to the other available self-build alternatives, and at least $900 million CPVRR compared to third party-build alternatives.

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.

Financial Assumptions

In performing its analyses, FPL uses an incremental overall cost of capital of 7.29 percent on an after-tax basis. This return is based on a capital structure of 59 percent equity at a cost rate of 10 percent and 41 percent debt at a cost rate of 5.5 percent. The incremental cost of capital is

appropriate to use when evaluating new investment. FPL's other financial assumptions include an annual inflation rate of 3.0 percent for capital expenditures and 2.5 percent for Operation and Maintenance (O&M) expenses. Upon review, we find that the financial assumptions used by FPL are reasonable and are consistent with the financial assumptions included in recent Commission-approved need determination filings. There is no evidence in the record which disputes the reasonableness of FPL's financial assumptions.

Generation Cost Estimates and Projected Performance Specifications

The installed cost of PEEC is projected to be approximately $1,185 million. FPL's cost estimate includes benefits associated with utilizing the existing site and infrastructure. PEEC is projected to have a heat rate of 6,330 Btu/kWh at full capacity and is expected to have an availability factor of 95.4 percent. The cost estimates, heat rate, and equivalent availability parameters for PEEC are comparable with similar projects approved by this Commission. Table 2, below, summarizes the PEEC project. FIPUG did not dispute the capital and operating assumptions associated with PEEC.

Table 2: Summary of PEEC

Installed Cost ($ Million)	1,185
Fixed O&M ($/kw-yr) 2016$	7.99
Variable O&M ($/MWh) 2016$	0.10
Heat Rate (BTU/kwh)	6,330
Equivalent Availability (%)	95.4
Capacity Factor (%)	95

Fuel Costs

FPL represents that its forecasts are based on recognized, independent sources of forecast information. For natural gas, FPL used an escalation rate of 1.706 percent for the conversion forecast based on the average annual escalation beyond the year 2025 from the Energy Information Administration's (EIA) Annual Energy Outlook April 26, 2011, price forecast. FPL states that the "fuel price forecasts reflect the projected supply, demand and price for fuel oil, natural gas, and coal, as well as the transportation of these fuels to the existing and proposed sites."

The fuel forecasts were originally prepared using the August 1, 2011, fuel price forecast. The oil price forecasts through 2013 are based on the forward curve for New York Harbor 1 percent sulfur heavy oil, U.S. Gulf Coast 1 percent sulfur heavy oil, and light fuel oil commodity prices. The natural gas price forecast through 2013 is based on the forward curve for the Henry Hub natural gas commodity prices. For 2014 and 2015, FPL combined the forward curve and projections from PIRA Energy Group, giving each equal weight. For the period 2016 through 2025, FPL used the annual projections from PIRA Energy Group. For the period beyond 2025, FPL used the rate of escalation from the EIA. Transportation costs are added to the commodity prices to obtain delivered prices. FPL asserts that the foregoing fuel forecast methodology is consistent with the approach used in previous filings, including the 2011 Ten-Year Site Plan.

FIPUG did not dispute FPL's fuel forecast. Upon review, we find that FPL's fuel price forecasts are reasonable for purposes of this proceeding.

Environmental Costs

FPL has developed three emission price forecast scenarios (ENV I, ENV II, and ENV III) based on forecasts developed by ICF International. These three emission price forecasts were used in FPL's feasibility analyses in Docket No. 110009-EI. For the purposes of this proceeding, FPL relied on its ENV II forecast which represents the mid-range forecast. The compliance costs used were ICF International's 2011 4th quarter forecast for greenhouse gas legislation and the EPA's Cross State Air Pollution Rule.

FIPUG questions the use of carbon costs based on FPL's acknowledgement that costs for carbon emissions are not currently imposed. However, FIPUG did not offer a witness to support an alternate emissions price forecast. We observe that FPL's ENV II forecast does not reflect costs for carbon emissions until 2018. Upon review, we find that FPL's ENV II forecast is based on widely accepted emission price forecasts and is reasonable for use in this proceeding.

Decision

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, FPL shall report annually to this Commission the budgeted and actual costs compared to the estimated total in-service 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 shall include in its annual report the comparative cost advantage of the alternative design chosen. Such a selection shall only be made if the projected cost to FPL's customers is lower as a result of the alternate design.

D. Fuel Diversity

We have been asked to determine whether there is a need for the proposed modernization of FPL's Port Everglades plant, taking into account the need for fuel diversity, as this criterion is used in Section 403.519(3), F.S.

FPL

FPL argues that there is a need for PEEC taking into account the need for fuel diversity. The Company argues that a large part of its fuel diversity efforts consist of improving system efficiency. FPL asserts that PEEC will be fueled primarily by natural gas, can burn light oil as a backup fuel, and is projected to improve the plant's heat rate by 35 percent, thus reducing FPL's use of natural gas usage by about 90 million MMBtu and fuel oil by about 10.4 million barrels. FPL contends that PEEC's ability to burn light oil as a backup fuel further enhances FPL's reliability in the event of disruption in the supply or delivery of natural gas. Additionally, the Company argues that because PEEC's location is adjacent to a deep-water port that has significant oil storage, the light oil can be re-stocked rapidly allowing PEEC to continue running on light oil for much longer than would be the case at land-locked CC facilities where the light oil must be re-stocked by truck deliveries.

FIPUG

FIPUG argues that the proposed Project does not provide fuel diversity and that, to the contrary, it increases FPL's reliance on natural gas. FIPUG asserts that, by ignoring the possibility of contracting with renewable facilities, FPL did not adequately consider fuel diversity. Thus, FIPUG contends that approval of PEEC would further the Company's reliance on natural gas.

Review

PEEC will be fueled by natural gas and, to enhance fuel supply reliability, it will use light oil as a backup fuel. The construction of PEEC will not substantially change FPL's generation fuel mix. However, the addition of new coal or nuclear generation by 2016 is not feasible and no cost-effective renewable generation has been identified that could defer the need for PEEC. While running oil generation ahead of gas generation could reduce natural gas use from 60 percent to 48 percent, such a choice is not economical. Upon review, we find that considering only the generation fuel mix is a misleading view of fuel diversity. We have previously recognized that the reduction of fuel consumption as a step towards fuel diversity. We find that reducing the amount of any one fuel within a utility's portfolio provides the benefit of lessening that utility's exposure to potential price fluctuations associated with that fuel.

When compared to returning the existing units at Port Everglades to service, 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. By increasing the efficiency of its Port Everglades unit and its overall system, FPL will reduce the amount of natural gas and fuel oil needed to serve the same needs of its customers. FPL's economic analysis projects more than $1 billion in fuel savings when PEEC is compared to returning the existing Port Everglades units to service. Table 3, below, summarizes the projected fuel reductions associated with PEEC when compared to returning the existing Port Everglades units to service.

Table 3: PEEC Fuel Reductions Compared to Returning Units to Service

Natural Gas (MMBtu)	Oil (Bbl)
90,000,000	10,484,000

Another benefit of reduced fuel consumption is reduced emissions. PEEC is projected to reduce greenhouse gas emissions by more than 22 million tons over the life of the project. Reducing emissions can be beneficial to FPL's customers because of the risk that the costs to comply with various environmental regulations in the future could be higher than projected. FPL's economic analysis projects more than $400 million in environmental savings when PEEC is compared to returning the existing Port Everglades units to service. Table 4, below, summarizes the projected emissions reductions associated with PEEC when compared to returning the existing Port Everglades units to service.

Table 4: PEEC Emission Reductions Compared to Returning Units to Service

SO_2 (Tons)	NO_x (Tons)	CO_2 (Tons)
40,661	32,635	22,232,000

FPL's utilization of the Port Everglades site will allow the use of existing natural gas infrastructure; thus, only additional compression infrastructure will be required to supply the site. FPL projects that it will need additional natural gas supply and transportation to meet its overall system requirements by 2017, whether or not the Port Everglades Plant is modernized. FPL currently is preparing a request for proposals to meet its future gas transportation needs.

Decision

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_2, NO_x, and CO_2 from FPL's system by approximately 40 thousand, 33 thousand, and 22 million tons, respectively, over the life of the project. With or without the modernization of Port Everglades Plant, 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.

E. Cost Effectiveness

We have been asked to determine whether the proposed modernization of FPL's Port Everglades Plant will provide the most cost-effective source of power, as this criterion is used in Section 403.519(3), F.S.

FPL

FPL asserts that PEEC is the most cost-effective source of power and that the PEEC Resource Plan will provide savings to FPL's customers when compared to alternative plans based on similar reliability criteria. The Company argues that, compared to returning the existing Port Everglades units to service, adding a CC unit or adding a CT unit that defers PEEC to 2019, adding PEEC in 2016 will save customers $469, $838 million, and $425 million, respectively. The Company argues that PEEC will save at least $900 million compared to third party-build alternatives

FIPUG

FIPUG argues that FPL has failed to carry its burden of proof to establish that PEEC is the most cost-effective source of power. FIPUG contends that FPL has failed to explore other alternatives and that FPL proposes to meet a 284 MW need with a 1,277 MW project. FIPUG questions the use of carbon costs when evaluating PEEC and argues that a resource plan considering a reserve margin of slightly less than 20 percent could save ratepayers approximately $29 million. FIPUG argues that we should deny FPL's need determination because it is not the most cost-effective source of power available.

Review

Our 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 is expected to respond appropriately. In addition, we have ongoing authority and an obligation to ensure fair, just, and reasonable rates for Florida's utilities and ratepayers.

FPL evaluated multiple resource plans to meet its projected need. The resource plan at issue in this docket involves the construction of PEEC in 2016. FPL also evaluated the following: a resource plan which assumes a return to service of the existing Port Everglades units (Return to Service); a resource plan which assumes construction of a combined cycle unit at a greenfield site in 2016 (GFCC); and, a resource plan which assumes the construction of two new combustion turbines at a greenfield site in 2016 and deferring PEEC to 2019 (GFCT). Each resource plan evaluated in FPL's petition satisfies its 20 percent reserve margin criterion over the analysis horizon.

FPL evaluated each resource plan over the projected 30-year useful life of a new combined cycle power plant. FPL's analyses also relied on the assumptions we reviewed in this Order at Section C., above.

While FIPUG asserts that the use of carbon costs is not appropriate for this proceeding, FIPUG did not present testimony to further its argument. Moreover, FPL's resource plans were

evaluated considering varying natural gas prices, and assuming no costs associated with future carbon regulation. Upon review, we find that the assumptions used in FPL's base case are appropriate.

FPL's analyses show that the resource plan that includes PEEC in 2016 is projected to save customers $425 million to $838 million CPVRR when considering the assumptions filed by FPL (Base). Under the least favorable evaluation, which considers no-carbon costs as argued by FIPUG, the PEEC resource plan remains the most cost-effective alternative that maintains a 20 percent reserve margin. The economic analysis of PEEC is summarized in Table 5, below.

Table 5: Results of Economic Analyses Relative to PEEC
(millions, CPVRR, 2011$)

	Sensitivity (Positive values indicate net costs when compared to PEEC)			
Resource Plan	Base	High NG	Low NG	No Carbon
Return to Service	469	533	440	102
GFCC	838	841	834	816
GFCT	425	456	410	276

While it is highly unlikely that a third party could build a new generating unit at a site in Miami-Dade or Broward Counties by 2016, FPL estimated the potential cost of such a project. When compared to PEEC, which will require no cost for new land, no cost for water access, no cost for a new gas pipeline to deliver fuel, and no cost for new transmission lines to connect, any third party proposal is projected to require additional costs of at least $900 million and may exceed $1.1 billion.

FIPUG argues that FPL did not explore a departure from its 20 percent criterion and that a resource plan considering a reserve margin of slightly less than 20 percent could save ratepayers approximately $29 million. However, based on the information referenced by FIPUG in its brief, we are unable to determine the genesis of FIPUG's claim.

The record reflects that if FPL did not construct PEEC until 2019 (thus dropping below the 20 percent criterion) or if the Company entered into a purchased power agreement that deferred construction of PEEC to 2019 (thus maintaining the Company's 20 percent reserve margin in the near term) the costs would be as reflected in Table 6, below.

Table 6: Results of Economic Analyses Relative to PEEC
(millions, CPVRR, 2011$)

	Sensitivity (Positive values indicate net costs when compared to PEEC)			
Resource Plan	Base	High NG	Low NG	No Carbon
Delay w/PPA	30	60	16	-119
Delay	-18	12	-32	-167

Although these resource plans demonstrate potential savings when compared to the PEEC resource plan, they do not consider equal levels of system reliability and may not provide a meaningful economic comparison. Without new capacity in 2016, FPL's total reserves would be 4,072 MW of which only 1,536 MW would come from generation resources. Therefore, DSM would provide most of the system reserves. This could lead to excessive use of load control and potential defections from the program.

Only the "Delay" resource plan shows savings when compared to PEEC under the base case and an increase to the price of natural gas could eliminate those savings. Moreover, FPL expressed concern that delaying PEEC could lead to relatively significant cost escalations. FPL's analyses which consider construction of PEEC beyond 2016 assume a standard escalation rate of 3 percent. National economic recovery could cause greater competition for labor, materials, and equipment, thus raising the cost of the unit more than the assumed 3 percent increase. Additionally, potential environmental regulation combined with low gas prices could result in utilities shutting down coal generation and adding new gas generation. Finally, an increase in demand for equipment for combined-cycle units throughout the country could raise the cost of projects like PEEC.

Decision

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: $469 million CPVRR when compared to returning to service the existing Port Everglades units; $838 million CPVRR when compared to adding a combined cycle unit at a greenfield site; and, $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 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.

F. Determination of Need

We have been asked whether, based on the resolution of the foregoing issues, we should grant Florida Power & Light Company's petition to determine the need for the proposed modernization of Florida Power & Light's Port Everglades plant.

FPL

FPL argues that we should grant its petition and asserts the following: Bringing PEEC into service in 2016 is the most cost effective source of power for customers, and delaying PEEC results in cost penalties; PEEC enhances system reliability, reduces dependency on natural gas and further improves FPL's already low air emissions profile; PEEC is the best option available for FPL's customers taking 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, cost-effectiveness, and the availability of renewable or conservation alternatives; PEEC will optimize the use of an existing site and is thus consistent with the Commission's direction that before a utility constructs a new generating unit at a greenfield site, it must consider the feasibility of modernization of existing units.

FIPUG

FIPUG asserts that we should deny FPL's Petition the for the reasons and proposed findings of fact set in its in its arguments regarding each issue in this docket.

Review

Our decisions at Sections A through E, above support construction of PEEC in 2016. Moreover, upon review, we find that, in the absence of significant contravening evidence, the testimony of witness Silva, when taken alone, supports the determination of need for PEEC in 2016. PEEC will increase FPL's system generation to maintain system reliability and, because PEEC can receive backup fuel delivered via waterborne transport, it will contribute to system reliability in the event of a disruption in gas delivery. No cost-effective DSM, not already reflected in FPL's resource plan, has been identified to defer the need for PEEC. Similarly, there are no known additional cost-effective renewable resources that could provide any significant amount of firm generating capacity prior to 2019. Because PEEC is needed to meet FPL's reliability criteria, and it is the most cost-effective alternative available, it is expected to provide adequate electricity at a reasonable cost to FPL's customers. PEEC will enable FPL to reduce fossil fuel use thus contributing to fuel diversity. Analyses indicate that PEEC is the most cost-effective alternative compared to returning to service older units now in inactive reserve, adding a new combined cycle unit at a greenfield site, or delaying PEEC by adding CTs. Additionally,

the record reflects that PEEC will provide numerous benefits, including the addition of baseload generation near FPL's load center, the optimization of an existing site, and the improvement of the efficiency of FPL's generation fleet.

Decision

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.

G. Closing Docket

We have been asked to determine whether this docket should be closed.

FPL

FPL asserts that, upon issuance of an order granting its petition to determine the need for PEEC, we should close this docket. FPL does not object to our including in a final need order the commitments the Company made in the Proposed Stipulation.

FIPUG

FIPUG asserts that the Docket should be closed.

Decision

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., this Commission is the sole forum for the determination of need for major new power plants. In making our determination, we 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. We 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. Our 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 those presented at the need determination proceeding, then a prudent utility would be expected to respond appropriately. In addition, we have an ongoing authority and obligation to ensure fair, just, and reasonable rates for Florida's utilities and ratepayers. FPL shall continue to report the status of the PEEC to this Commission in the annual report required by our decision at Section C. of this Order.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the Florida Power & Light Company's November 21, 2011, Petition to Determine Need for Modernization of Port Everglades Plant is hereby granted as set forth in the body of this Order. It is further

ORDERED that, Florida Power & Light Company anually shall file with this Commission the information required in the body of this Order.

By ORDER of the Florida Public Service Commission this 9th day of April, 2012.

ANN COLE
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399
(850) 413-6770
www.floridapsc.com

Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

CWM

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within

fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.