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To: Filings@psc.state.fl.us
Cc: Martha Brown
Subject: Electronic Filing for Docket Nos. 080203-EI, 080245-EI and 080246-EI / FPL's Post-Hearing Brief
Attachments: FPL's Post Hearing Brief 7-11-08.doc; Attachment 1.pdf

Electronic Filing

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b. Docket No. 080203-EI; In re: Florida Power & Light Company's Petition to Determine Need for West County Energy Center Unit 3 Electrical Power Plant

Docket No. 080245-EI; In re: Florida Power & Light Company's Petition to Determine Need for Conversion of Riviera Plant

Docket No. 080246-EI; In re: Florida Power & Light Company's Petition to Determine Need for Conversion of Cape Canaveral Plant

c. Documents are being filed on behalf of Florida Power & Light Company.

d. There are a total of 36 pages in the attached Post-Hearing Brief and 2 pages in Attachment 1.

e. The documents attached for electronic filing are Florida Power & Light Company's Post-Hearing Brief and Attachment 1.

Sincerely,
Jessica Cano

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Florida Power & Light Company's Petition to Determine Need for West County Energy Center Unit 3 Electrical Power Plant	Docket No. 080203-EI
In re: Florida Power & Light Company's Petition to Determine Need for Conversion of Riviera Plant in Palm Beach County	Docket No. 080245-EI
In re: Florida Power & Light Company's Petition to Determine Need for Conversion of Cape Canaveral Plant in Brevard County	Docket No. 080246-EI Filed: July 11, 2008

FLORIDA POWER & LIGHT COMPANY'S POST-HEARING BRIEF

Pursuant to Order No. PSC-08-0399-PHO-EI, Florida Power & Light Company ("FPL" or the "Company") hereby files with the Florida Public Service Commission (the "PSC" or the "Commission") its Post-Hearing Brief in the above-referenced docket, and states:

I. INTRODUCTION AND OVERVIEW

FPL seeks an affirmative determination of need pursuant to Section 403.519, Florida Statutes, for the addition of West County Energy Center Unit 3 ("WCEC 3") in 2011, the conversion of its Cape Canaveral plant (the "Cape Canaveral Conversion") to be completed in 2013, and the conversion of its Riviera plant (the "Riviera Conversion") to be completed in 2014. These three proposed resource additions are each individually needed for system reliability and provide substantial economic and non-economic benefits to customers.

From 2011 through 2017, FPL projects that it will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective demand side management ("DSM") and renewable resources. Tr. 69 (Silva); 481, 510 (Sim). The evidence presented in this proceeding demonstrates that together, these projects will provide about 2,300 megawatts

("MW") of additional, highly efficient capacity to help satisfy this need. Tr. 150, Ex. 5 (Silva). Moreover, as a result of projected fuel cost savings and environmental compliance cost savings, the projected economic benefit to customers associated with all three projects, compared to the best alternative resource plan, will be approximately $1.2 billion cumulative present value revenue requirements ("CPVRR"). Tr. 149 (Silva); 536 (Sim).[1] Fuel cost savings will be reflected in FPL's fuel clause factors following each unit's in-service date. Any further increase in the price of natural gas beyond the forecasted levels used in FPL's economic evaluation will increase the fuel cost savings realized by customers, making these projects even more necessary to offset such a rise in fuel prices. See Tr. 527, 536 (Sim).

The non-economic benefits associated with these projects include reduced air emissions and reduced use of fossil fuels. Assuming the addition of WCEC 3 in 2011, which will permit the conversion of Cape Canaveral and Riviera, the conversions are projected to lower FPL's system emissions by approximately 15.7 million tons of carbon dioxide ("CO_2"), 60,000 tons of sulfur dioxide, and 55,000 tons of nitrogen oxides through 2040. Tr. 537 (Sim). In fact, the conversion of the Cape Canaveral and Riviera plants is the only way that FPL could significantly reduce its CO_2 emissions through 2017. Tr. 106, 149-50 (Silva). Likewise, the conversions are projected to lower FPL's annual system fuel usage in the 2013-2017 time frame by approximately 9.6 trillion BTUs of oil and 2.1 trillion BTUs of natural gas. Tr. 537 (Sim).

The conversion projects offer many other unique non-economic advantages. Additional electricity will be produced using existing sites, without requiring any additional land or

[1] During discovery, Staff requested that FPL provide an analysis of the CPVRR savings and emission reductions associated with certain resource plans using the updated fuel and environmental compliance cost forecasts used in Dockets 080245-EI and 080246-EI. The table summarizing those results, provided in FPL's response to Interrogatory 104 (Staff's Composite Exhibits – 2), is included as Attachment 1. The analysis demonstrates that FPL's resource plan that includes WCEC 3 in 2011 and the Cape Canaveral and Riviera Conversions results in the most CPVRR savings and reduced emissions.

requiring additional transmission rights of way. Tr. 108, 139 (Silva). That additional electricity will also be produced without using additional water sources or exceeding existing water permit limits. Tr. 286, 299 (Tindell). Additionally, the aesthetics of the power plant sites will improve as a result of converting the existing 1960s-era units to modern, clean energy centers. Tr. 294-95 (Tindell). For example, the stacks at the Cape Canaveral site will be lowered from about 400 feet to 150 feet and the stacks at the Riviera site will be lowered from approximately 300 feet to 150 feet. Id; 284 (Tindell). Also, the locations of the existing sites present unique fuel supply reliability benefits because they can each receive delivery of backup fuel from waterborne transportation. Tr. 282 (Tindell); 385 (Stubblefield).

Due in part to these unique attributes, and because the conversions will likely result in a lower cost supply of electricity and will increase the reliable supply of electricity, the Riviera and Cape Canaveral Conversions satisfy each of the criteria available for a full exemption from Rule 25-22.082, Florida Administrate Code ("the Bid Rule"). Such an exemption will not affect the Commission's authority to evaluate the prudence of all costs associated with the projects.

For all the above reasons, and as demonstrated in the record and summarized below, FPL requests that the Commission issue affirmative determinations of need for WCEC 3, the Cape Canaveral Conversion, and the Riviera Conversion, as well as exempt the conversions from the Bid Rule.

II. ISSUES AND POSITIONS

A. WEST COUNTY ENERGY CENTER UNIT 3

Issue 1: Has FPL met the requirements of Rule 25-22.082, Florida Administrative Code, with respect to the selection of building WCEC 3?

FPL: *Yes. FPL's RFP issued on December 13, 2007 was consistent with the requirements of Rule 25-22.082. FPL's analysis shows that WCEC 3 in 2011 is over $600 million CPVRR less

costly than the best proposal. An independent evaluator confirmed the cost advantage of WCEC 3 over the competing proposals.*

FPL issued a Request for Proposals ("RFP") consistent with the requirements of the Bid Rule on December 13, 2007. Tr. 459, 478 (Sim); 201-02 (Taylor). Specific content required by the Bid Rule was included in the RFP, and the RFP process was conducted in accordance with the guidelines provided by the Bid Rule. Tr. 478 (Sim). FPL's analysis of the proposals showed that WCEC 3 in 2011 was at least $606 million CPVRR less costly than the best alternative proposed in response to the RFP. Tr. 70 (Silva); 493-94 (Sim). An independent evaluator's economic evaluation and review of FPL's RFP evaluation process also confirmed the significant cost advantage of WCEC 3 in 2011 over the competing alternatives proposed. Tr. 210-11, 215 (Taylor).

Issue 2: Is there a need for WCEC 3, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. From 2011 through 2017, FPL will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM and available renewable resources. WCEC 3 will provide 1,219 MW of highly efficient capacity to help satisfy this need.*

Reliable forecasts show that Florida's population will continue to expand, taking into account the slower growth rate that Florida and FPL's service territory are currently experiencing. Population growth in absolute terms will remain large, even if the percentage increases are somewhat smaller than have been experienced in the past. Tr. 323-24, 342-43, 354 (Morley). This projection of growth, provided by the University of Florida's Bureau of Economic and Business Research ("BEBR"), provides the basis for FPL's customer growth forecast. Tr. 323, 342 (Morley); See Ex. 99 (BEBR's November 2007 forecast). The total growth in customers is in turn a primary driver of FPL's projected peak demand growth. Tr. 323, 342 (Morley). As a result, from 2011 through 2017, FPL projects that it will need to add 4,844

MW of new generating capacity, after accounting for all identified cost-effective DSM and renewable resources. Tr. 69 (Silva); 481, 510 (Sim).

FPL also performed a sensitivity analysis using updated information with lower population projections from the University of Florida's BEBR dated February 2008. That analysis demonstrated that the significant cost savings and other benefits of each project would still be realized with lower customer growth. Tr. 171 (Silva); 538-39 (Sim). Additionally, given the magnitude of FPL's resource needs, the most recent population and customer growth data continues to support the need for the capacity provided by each of FPL's proposed projects in the 2011-2017 time frame. WCEC 3 will provide 1,219 MW of highly efficient capacity to help satisfy this need and will be a highly reliable source of energy, with an expected equivalent availability factor of approximately 97%. Tr. 247 (Gnecco).

Although the additional capacity provided by WCEC 3 is not necessary to satisfy reserve margin requirements until 2013, the addition of WCEC 3 in 2011 presents several unique advantages, including reduced fuel costs and reduced emissions during the 2011-2013 time frame. Tr. 481-82 (Sim). Moreover, the addition of WCEC 3 in 2011 is essential – from a reliability perspective – to allow FPL to remove the existing Riviera and Cape Canaveral plants from service and proceed with their conversion to natural gas-fueled clean energy centers. Tr. 537 (Sim).

Issue 3: Is there a need for WCEC 3, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. WCEC 3 in 2011 will take advantage of construction cost efficiencies and provide more cost certainty than building a unit at a greenfield site at a later time. Moreover, adding WCEC 3 in 2011 will save customers $137 to $735 million CPVRR compared to the other available self-build alternatives.*

The cost of WCEC 3 is reasonable and represents the most cost-effective option available to FPL. The total installed cost estimate for WCEC 3 of $864.7 million (2011$) reflects approximately $70 million in construction cost efficiencies gained by proceeding with the construction of WCEC 3 in 2011, immediately after the construction of West County Energy Center Units 1 and 2, and offers more cost certainty than building a unit at a new greenfield site at a later time. Tr. 71 (Silva); 251-52 (Gnecco). In addition to cost efficiencies, construction of WCEC 3 in 2011 provides greater assurance of water availability for the project. Tr. 252 (Gnecco).

FPL's original analyses showed that the resource plan that includes WCEC 3 in 2011 will save customers $137 to $460 million CPVRR as compared to the other available self-build alternatives. Tr. 536 (Sim). An updated analysis, accounting for higher forecasted fuel and environmental compliance costs, increased the $460 million CPVRR projected savings to $735 million CPVRR savings. Tr. 536 (Sim). Additionally, WCEC 3 in 2011 would be at least $606 million CPVRR less costly than a resource plan that uses proposals in response to FPL's 2007 RFP. Tr. 493-94 (Sim). The cost-effectiveness of WCEC 3 in 2011 in comparison to FPL's other alternatives is described further below in Issue 6.

An increase in the cost of natural gas beyond FPL's forecasted levels would not adversely affect FPL's decision to move forward with WCEC 3. This is true for several reasons. First, after evaluating all the major generating alternatives, it was determined that the only options available to FPL to meet its resource needs in the near term are fueled by natural gas. Tr. 238 (Gnecco). New nuclear or coal-fueled plants could not be sited, approved, and constructed in time to meet the capacity needs of FPL's customers. Id.; 473 (Sim). And, as explained below in Issue 5, all known renewable resources have already been included in FPL's resource plans.

Among the natural-gas fueled options, the addition of WCEC 3 in 2011 is the most cost-effective option. Tr. 494 (Sim). Secondly, as fuel prices rise, the efficiency of FPL's system becomes more and more important. Tr. 168 (Silva); See also 536, 545-46 (Sim). This is one of the key reasons why WCEC 3 is needed in 2011 as opposed to 2013 – to increase the efficiency of FPL's system and provide fuel cost savings earlier. Third, an increase in natural gas costs will likewise increase the fuel cost savings realized by customers. Tr. 536 (Sim). As a result, even if natural gas costs exceeded forecasted levels, the proposed projects would continue to be the most cost-effective option available to FPL and its customers.

Issue 4: Is there a need for WCEC 3, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. With the addition of WCEC 3 in 2011, FPL's overall system fuel efficiency will improve by 1.4% in the period of June 2011 through June 2013, reducing FPL's use of natural gas by about 18 million MMBtu and fuel oil by about 13.6 million MMBtu (or 2.1 million barrels).*

The evidence shows that the addition of WCEC 3 in 2011 will reduce FPL's natural gas and fuel oil usage as compared to delaying the addition of similar capacity. FPL's overall system fuel efficiency will improve by 1.4% in the period of June 2011 through June 2013, reducing FPL's use of natural gas by about 18 million MMBtu and fuel oil by about 13.6 million MMBtu. Tr. 70-71 (Silva); 375-76 (Stubblefield). The fuel oil reduction alone amounts to 2.1 million fewer barrels of oil used to provide electric service during that time period. Tr. 376 (Stubblefield).

It is also evident that there will be adequate natural gas supply available to fuel WCEC 3 for the life of the unit. Expert sources show that there is a more than adequate supply of natural gas from conventional sources. Tr. 545 (Sim). The PIRA Energy Group, for example, has provided FPL with projected natural gas supply and demand balance availability, demonstrating

the adequacy of the natural gas supply. Ex. 100 (Stubblefield). WCEC 3 will also have the capability to utilize light fuel oil as a backup fuel source. Tr. 368 (Stubblefield). Light fuel oil will be stored in sufficient quantities to allow the entire WCEC site to operate at full capacity for 72 hours of continuous operation in the event of a natural gas transportation interruption, further enhancing fuel supply reliability. Id.

Issue 5: Are there any renewable energy sources and technologies or conservation measures taken by or reasonably available to FPL which might mitigate the need for WCEC 3?

FPL: *No. FPL's forecasted need already accounts for all the cost-effective DSM identified through 2014 and projected through 2017, and available renewable resources including the planned renewal of its existing firm renewable capacity purchase contracts and 126 MW of new renewable firm capacity.*

Neither renewable resources nor cost-effective conservation and DSM can mitigate the need for WCEC 3. FPL's forecasted need already accounts for all the cost-effective DSM identified through the year 2014 plus a projection of continued DSM at planned implementation rates for the years 2015-2017. Tr. 471-72 (Sim). This DSM includes FPL's current Commission-approved DSM goals and a significant amount of additional DSM that FPL has identified as cost-effective, and the Commission has approved, since the current DSM goals were approved. Id.

Similarly, with respect to renewable energy sources, FPL's forecasted need already accounts for the planned renewal of its existing firm renewable capacity purchase contracts currently set to expire in this time frame, as well as another 126 MW of new firm capacity from renewable resources as an estimate of cost-effective firm renewable capacity that is likely to be provided by respondents to a Renewables RFP, unsolicited proposals, and/or FPL's renewable development efforts. Tr. 83-84 (Silva).

Even if FPL were to spend an amount equal to the estimated combined cost of WCEC 3 and the conversion projects on renewable energy resources, the need for the capacity and other significant benefits provided by each of the proposed projects would not be mitigated by the new renewable resources. Far less capacity would be provided by such an investment. If approximately $3.26 billion was spent on photovoltaics at current prices, for example, they would provide only about 90 megawatts of firm capacity during the summer peak. Tr. 551 (Sim). The three projects proposed by FPL, on the other hand, will provide about 2,300 MW of incremental summer firm capacity. Id. Additionally, the solar photovoltaics would require almost 2,800 acres of land, whereas WCEC 3, the Cape Canaveral Conversion, and the Riviera Conversion do not require any additional land. Id. If this amount was spent on solar water heaters, just under 1.1 million solar water heaters could be bought and installed. Tr. 552 (Sim). These solar water heaters could provide about 220 MW of summer demand reduction, which is far less than the approximately 2,300 MW of incremental capacity that would be provided by the proposed WCEC 3 and conversion projects. Id.

Finally, it is important to note that any additional cost-effective DSM and renewable energy that may be identified in the future are complementary – not competing – options in this context. Future renewable resources and DSM, if identified and if cost-effective, would still not compete with the economic and environmental benefits provided by the addition of WCEC 3 in 2011. Tr. 73 (Silva). FPL projects that it will need an additional 2,556 MW of capacity through 2017 after the addition of WCEC 3 and the conversion projects, which is more than enough to accommodate any future cost-effective renewable or DSM resources identified. Tr. 150-51, Ex. 5 (Silva).

Issue 6: Is WCEC 3 the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. Adding WCEC 3 in 2011 will result in customer savings of about $735 million CPVRR compared to adding a similar unit in 2013, and $606 million CPVRR compared to the best alternative proposed in response to FPL's RFP. No self-build or proposed alternative is more cost effective.*

The evidence presented demonstrates that the addition of WCEC 3 in 2011 is the most cost-effective alternative available to FPL. In reaching this determination, FPL utilized a reasonable range of fuel and environmental costs in its economic analysis. Tr. 371-72, 387 (Stubblefield); 423-25 (Kosky). And, as described above in Issue 3, higher fuel costs would only increase the relative cost-effectiveness of WCEC 3, given the fact that the only available alternatives during the time frame that this capacity is needed would also be fueled by natural gas. Tr. 238 (Gnecco); 473 (Sim).

FPL's economic analysis demonstrates that adding WCEC 3 in 2011 is more cost effective than FPL's other self-build options and more cost effective than all proposals received in response to its 2007 RFP. FPL's original analysis demonstrated that the addition of WCEC 3 in 2011 would result in customer savings of about $137 million CPVRR compared to adding WCEC 3 in 2012 (Tr. 460, 494 (Sim)), and customer savings of about $460 million CPVRR compared to adding a similar unit at a greenfield site in 2013 (Ex. 44 (Sim)). This analysis was updated to account for more recent, higher forecasted fuel and environmental compliance costs. That updated analysis increased the $460 million CPVRR projected savings to $735 million CPVRR savings. Tr. 536 (Sim). Additionally, a resource plan incorporating the best alternative provided in response to FPL's RFP is approximately $606 million CPVRR more expensive than the resource plan based on the addition of WCEC 3 in 2011. Tr. 493-94 (Sim). An independent evaluation of FPL's RFP and the responses FPL received confirmed that WCEC 3 in 2011 was

the most cost-effective option. That analysis concluded that WCEC 3 in 2011 was more cost effective than the next best proposal by approximately $536 million. Tr. 211 (Taylor). As a result, all the evidence demonstrates that the addition of WCEC 3 in 2011 is the most cost-effective alternative available.

When WCEC 3 in 2011 is combined with the addition of the Cape Canaveral Conversion in 2013 and Riviera Conversion in 2014, the evidence shows that customers will save more than $1.2 billion CPVRR in electricity costs, as compared to a resource plan without WCEC 3 in 2011 and without the conversions. Tr. 537 (Sim).

Issue 7: Based on the resolution of the foregoing issues, should the Commission grant Florida Power & Light Company's petition to determine need for WCEC 3?

FPL: *Yes. The addition of WCEC 3 in 2011 is the most cost-effective choice, will reduce FPL's system oil and natural gas fuel usage in 2011-2013, and make it possible from a system reliability perspective to pursue the Cape Canaveral Conversion and the Riviera Conversion.*

The evidence presented demonstrates that WCEC 3 in 2011 satisfies all the criteria listed in Section 403.519, Florida Statutes. It is the most cost-effective choice among FPL's other available self-build options by $137 to $735 million CPVRR. Tr. 536 (Sim). It is also more cost-effective than the alternatives proposed in response to FPL's RFP by at least $606 million CPVRR. Tr. 70 (Silva); 493-94 (Sim). System fuel efficiency will improve by about 1.4% in the period of June 2011 through June 2013, reducing FPL's use of natural gas by about 18 million MMBtu and fuel oil by about 13.6 million MMBtu. Tr. 70-71 (Silva); 375-76 (Stubblefield). FPL's system CO_2 emissions will also be reduced during this time by about 2.2 million tons (Tr. 70 (Silva)), and by an annual average during 2011-2017 of about 1.7 million tons per year (Tr. 419-20 (Kosky)). Furthermore, if FPL were to delay the addition of WCEC 3, it would not be able to move forward with the conversion of its Cape Canaveral and Riviera plants, foregoing the significant benefits associated with those projects. Tr. 71, 96 (Silva).

Accordingly, both the economic and non-economic benefits associated with the addition of WCEC 3 in 2011 support an affirmative determination of need.

Issue 8: If an affirmative determination of need is granted, should FPL be required to annually report the budgeted and actual cost compared to the estimated total in-service cost of the proposed WCEC 3?

FPL: *FPL will annually report the budgeted and actual cost compared to the estimated total in-service cost of the proposed WCEC 3.*

FPL will annually report to the Director of Economic Regulation the budgeted and actual cost of WCEC 3, compared to the estimated total in-service cost presented in this proceeding.

B. CONVERSION OF RIVIERA PLANT

Issue 9: Should FPL be granted an exemption from Rule 25-22.082, Florida Administrative Code, with respect to the conversion of the Riviera plant?

FPL: *Yes. The conversion satisfies each of the three available bases for an exemption by providing CPVRR savings to customers, providing highly reliable capacity, and serving the public welfare by reducing emissions and fossil fuel usage. Customers will remain fully protected by the Commission's ratemaking authority.*

An Exemption from the Bid Rule Should be Granted

FPL requests that the Commission exempt the conversion of the Riviera and Cape Canaveral plants from Rule 25-22.082, Florida Administrative Code (the "Bid Rule"). Subsection 18 of the Bid Rule provides three alternative bases for granting exemption, any one of which is legally sufficient. The record shows that not just one but all three bases are satisfied with respect to the Riviera and Cape Canaveral Conversions, and that the conversion projects should therefore be exempted from the Bid Rule.

Rule 25-22.082(18), F.A.C. sets forth the circumstances under which "the Commission shall exempt" a utility from compliance with the Bid Rule:

> 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.

Assuming West County Unit 3 is placed into service in 2011, making possible the conversion of the Riviera and Canaveral plants, the conversion projects together are expected to result in $457 million in CPVRR savings for customers. Tr. 153 (Silva). Accordingly, FPL's proposal "will likely result in a lower cost supply of electricity" to FPL's customers as provided for in Rule 25-22.082(18), supporting an order exempting the conversion projects from the Bid Rule. Additionally, the RFP that FPL recently conducted for the evaluation of WCEC 3 was used to compare the conversion projects to proposals similar to what would likely be received in response to another RFP. In this regard, the WCEC 3 RFP was used as a proxy for conducting an additional RFP. Tr. 159 (Silva). That independent evaluation demonstrated that FPL's Plan with Conversions was $481 million CPVRR less expensive than the most economic resource plan using proposals received in response to the RFP. Tr. 196-97 (Taylor). As a result, the record clearly shows that FPL's proposal "will likely result in a lower cost supply of electricity" to FPL's customers than any alternatives, supporting an order exempting the conversion projects from the Bid Rule.

The conversions of the Riviera and Cape Canaveral plants will provide about 1,069 MW (net) of additional reliable electric generating supply towards meeting the total of 4,844 MW additional resources needed to serve FPL's customers in the 2011-2017 time frame, after adding WCEC 3 in 2011. Tr. 71, 103, Ex. 5 (Silva). Because the conversions clearly "increase the

reliable supply of electricity" to FPL's customers as provided for in Rule 25-22.082(18), an exemption should be granted.

The conversions of the Riviera and Cape Canaveral plants will also result in reducing FPL's system CO_2 emissions by about 15.7 million tons over their operating lives, as well as reducing other emissions and reducing fossil fuel usage. Tr. 437, Ex. 85 (Kosky); 107 (Silva); 530 (Sim). These emission and fossil fuel use reductions plainly "will serve the public welfare" within the meaning of Rule 25-22.082(18), in addition to many other public benefits shown in the record with respect to the conversions. Those other benefits, unique to these conversion projects, include additional capacity without requiring any additional land or transmission rights of way (Tr. 108, 139 (Silva)); additional capacity without using additional water sources or exceeding existing water permit limits (Tr. 286, 299 (Tindell)); and aesthetic improvements including new, lower stacks (Tr. 284 (Tindell)). Additionally, the locations of the existing sites present unique fuel supply reliability benefits because they can each receive delivery of backup fuel from waterborne transportation. Tr. 282 (Tindell); 385 (Stubblefield). These conversions will undeniably "serve the public welfare," thus supporting an exemption for the conversion projects from the Bid Rule

Granting an Exemption Will Leave FPL Customers Fully Protected

Granting an exemption will leave FPL's customers fully protected and assured that only the prudently incurred costs of the conversion projects will ever be charged to them in rates. Simply put, there are and will be no "blank checks" by exempting the conversion projects from the Bid Rule. This is because both conversion projects, from the first dollar to the last, will be fully subject to the Commission's ratemaking jurisdiction – under which the Commission has full and plenary jurisdiction to review and determine the prudence of all project costs.

The Commission's jurisdiction and authority to ensure that only the prudent costs of FPL's property, including the conversions, are included in rates charged to customers for electric service stems from Section 366.06(1), Florida Statutes. Section 366.06(1) provides:

> The commission shall investigate and determine the actual legitimate costs of the property of each utility company, actually used and useful in the public service, and shall keep a current record of the net investment of each public utility company in such property which value, as determined by the commission, shall be used for ratemaking purposes and shall be the money honestly and prudently invested by the public utility company in such property used and useful in serving the public....

Section 366.06(1), Fla. Stat (2007). See, e.g., Sarasota County et al v. Tamaron Utilities, Inc., 429 So. 2d 322, 323; 1983 Fla. App. LEXIS 18704 (2d Dist. 1983) (describing prudent investment method used in establishing rate base as valuing plant "at the cost of the original investment if prudently made," citing City of Miami v. Florida Public Service Commission, 208 So. 2d 249 (Fla. 1968)).

The Commission has long exercised its jurisdiction and authority to consider the prudence of the costs of electric generating plants for which a need determination has been granted. For example, in 1992 the Commission approved a need determination with respect to Tampa Electric Company's then-proposed 220 MW integrated gasification combined cycle unit located in Polk County, with a projected installed cost of $389 million (1996$). Order No. PSC-92-0002-FOF-EI, Docket No. 910883-EI (issued March 2, 1992). By 1996, Tampa Electric Company projected the costs of the unit to be approximately $506 million.

In 1996, in Docket No. 960409-EI, the Commission exercised its legal authority to conduct a prudence review to determine the regulatory treatment of the Polk Unit. In that proceeding, the pre-filed testimony of 15 witnesses was submitted, addressing issues including the prudence of the decision to continue construction of the unit. See Prudence review to

determine regulatory treatment of Tampa Electric Company's Polk Unit, Docket No. 960409-EI, Order No. PSC-96-0901-PHO-EI (Prehearing Order issued July 15, 1996).[2]

The Tampa Electric Company case is a tangible and concrete demonstration that a need determination based upon a cost estimate is not a "blank check." The Commission's Section 366.06(1) jurisdiction over the conversion projects provides complete regulatory assurance that only the reasonable and prudent costs of the conversion projects, whether ultimately higher or lower than the costs estimated in the need determination case, will be charged to customers in rates.

The Commission Should Not Subject the Conversion Project Costs to an "Extraordinary Circumstances" Standard

Because of the substantial additional time needed in the conversion project schedules for removing the existing Cape Canaveral and Riviera generating units, contracting for and constructing the conversion plants is several years further out in time than for a plant like WCEC 3. WCEC 3 in contrast is proposed to be constructed sooner, on a prepared generating plant site unencumbered by existing generating units, and for which major equipment and other construction inputs have already been contracted.

The required longer project timeline for the Riviera and Cape Canaveral Conversions necessarily means that there is more time for project costs to be exposed to ongoing highly volatile market conditions for necessary inputs into construction – markets which are outside of FPL's and the Commission's control. Specific cost uncertainties that the conversion projects are more exposed to (compared with WCEC 3, for example) and that could cause actual project costs to be higher or lower include the market price for major equipment and construction labor as

[2] The Commission conducted this separate prudence review pursuant to a rate stipulation agreement that expressly required "separate consideration of the regulatory treatment of the Polk Power Station and Port Manatee site investments," and itself ended in a new stipulation agreed to by the parties and approved by the Commission. See, Docket No. 960409-EI, Order No. PSC-96-1300-S-EI. 1996 Fla. PUC LEXIS 1929, *3 (Issued October 24, 1996).

well as foreign currency exchange values at the time of contracting for the conversion projects' construction. These uncertainties would of course also affect the costs of any alternatives to the conversion projects. Tr. 296 (Tindell).

Staff's position stated in the prehearing order suggests that the Commission add back language from the Bid Rule providing that "[c]osts in addition to those identified in this need determination proceeding shall not be recoverable unless FPL can demonstrate that such costs were prudently incurred and due to extraordinary circumstances." The Commission should not accept Staff's suggestion, for several reasons.

First, it is important to point out that the function of a Section 403.519 need determination case is to decide what resource to procure or construct – it is not a ratemaking proceeding. For example, Section 403.519 does not provide the Commission with authority to fix the price which must be paid for a generating plant, or to set a "not-to-exceed" price for a resource. This is plainly seen by reading the statute:

> (1) On request by an applicant or on its own motion, the commission shall begin a proceeding to determine the need for an electrical power plant subject to the Florida Electrical Power Plant Siting Act.
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> *****
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> (3) ... In making its determination, the commission shall 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, 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. The commission shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its members which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant. The commission's determination of need for an electrical power plant shall create a presumption of public need and necessity and shall serve as the commission's report required by Section 403.507(4). An order entered pursuant to this section constitutes final agency action.

Section 403.519, Fla. Stat (2007).

What is notably absent from Section 403.519 is any invocation of the Commission's ratemaking authority, which is provided for under the completely separate Section 366.06(1) discussed above. No provision in Section 403.519 authorizes the Commission to mandate that a plant be constructed for a particular cost, for a not-to-exceed cost, or to provide for a higher standard of proof than the prudence standard that the legislature has provided to govern ratemaking, which is established in Section 366.06(1). Accordingly, the Commission should reject Staff's request to alter the standard of proof for costs in excess of those estimated from the "prudence" standard provided for under Section 366.06(1), to a different standard of "prudently incurred and due to extraordinary circumstances."

FPL notes that in the rulemaking to revise the Bid Rule that is the source of the "prudently incurred and due to extraordinary circumstances" language, Staff opposed this addition to the rule, stating in its recommendation as follows:

> Subsection (14) [subsequently relabeled (15)] of the proposed rule codifies the Commission's existing procedures regarding cost recovery of a power purchase agreement or a self-build option resulting from the RFP process. Staff recommends that the proposed rule amendment be deleted so as not to limit the Commission's flexibility when addressing cost-recovery at a future date. Deletion of this section would not impact the Commission's longstanding authority to review the prudence of utility decisions regarding power purchase contracts or self-build options, and to decide the manner and extent to which cost-recovery should be granted. The existing rule requires RFPs as a tool by which IOUs gather information, to determine the most cost-effective alternative generating option. An affirmative determination of need is not a guarantee of future cost-recovery....

Proposed Revisions to Rule 25-22.082, F.A.C., Selection of Generating Capacity, Docket No. 020398-EQ (Staff Recommendation Issued December 23, 2002).

In the present case, the Commission has the authority and jurisdiction to grant a waiver from the Bid Rule in its entirety. Rule 25-22.082(18) states that the Bid Rule shall be waived if any one of the three available conditions are met, and in this instance, all three conditions are met by the proposed conversion projects. An exemption from the Bid Rule will permit major projects of great benefit to FPL's customers and Florida's environment to proceed, and to be subject to the proper legal review of actual costs in the future under the prudence standard provided under Section 366.06(1).[3]

To be clear, FPL is absolutely committed to and focused upon prudent decision making from the first dollar to the last in the conversion projects and all of its projects. There is also no need to include the "extraordinary circumstances" language suggested by Staff in order for the Commission to carry out its customer protection role of ensuring that only prudently incurred costs are ultimately included in rates charged to customers. Accordingly, FPL requests that the Commission grant Bid Rule exemptions for the Riviera and Cape Canaveral Conversions, without adding the "extraordinary circumstances" language suggested in Staff's position in the prehearing order.

[3] FPL notes that in its last rate proceeding, FPL and other parties agreed in the Stipulation and Settlement agreement approved by the Commission in the exercise of its ratemaking authority, that for "any power plant that is approved pursuant to the Florida Power Plant Siting Act (PPSA) and achieves commercial operation within the term of this Stipulation and Settlement...", FPL's base rates will be increased by the "annualized base revenue requirement for the first 12 months of operation, reflecting the costs upon which the cumulative present value revenue requirement (CPVRR) were or are predicated, and pursuant to which a need determination was granted by the FPSC." Stipulation and Settlement, p. 12, approved in Docket Nos. 050045-EI and 050188-EI, Order No. PSC-05-0902-S-EI (issued September 14, 2005). This Generation Base Rate Adjustment ("GBRA") provision in the agreement goes on to provide that lower capital costs will be flowed back to customers through the Capacity Clause, and that any actual capital costs higher than projected in the need determination case would be subject at FPL's election to review under the standard contained in Rule 25-22.082(15) providing for the "prudently incurred and due to extraordinary circumstances" standard. FPL acknowledges that if it were to seek GBRA recovery of the costs of the conversion projects that this agreed-upon stipulated provision would govern.

Issue 10: Is there a need for the conversion of the Riviera plant, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. From 2011 through 2017, FPL will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM and available renewable resources. The Riviera Conversion will provide 642 MW of net generating capacity to help satisfy this need.*

Reliable forecasts show that Florida's population will continue to expand, taking into account the slower growth rate that Florida and FPL's service territory are currently experiencing. Population growth in absolute terms will remain large, even if the percentage increases are somewhat smaller than have been experienced in the past. Tr. 323-24, 342-43, 354 (Morley). This projection of growth, provided by the University of Florida's Bureau of Economic and Business Research ("BEBR"), provides the basis for FPL's customer growth forecast. Tr. 323, 342 (Morley); See Exhibit 99 (BEBR's November 2007 forecast). The total growth in customers is in turn a primary driver of FPL's projected peak demand growth. Tr. 323, 342 (Morley). As a result, from 2011 through 2017, FPL projects that it will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM and available renewable resources. Tr. 104 (Silva); 510, 514 (Sim).

FPL also performed a sensitivity analysis using updated information with lower population projections from the University of Florida's BEBR provided in February 2008. That analysis demonstrated that the significant cost savings and other benefits of each project would still be realized with lower customer growth. Tr. 171 (Silva); 538-39 (Sim). Additionally, given the magnitude of FPL's resource needs, the most recent population and customer growth data continues to support the need for the capacity provided by each of FPL's proposed projects in the 2011-2017 time frame.

The conversion of the Riviera plant will provide 642 MW of highly efficient net generating capacity to help satisfy this need, and will provide a highly reliable source of energy, with an expected equivalent availability factor of approximately 97%. Tr. 288-89 (Tindell). Without the two proposed conversions, or comparable other capacity, FPL will not maintain a 20% reserve margin starting in 2014, even after the addition of WCEC 3 in 2011. See, e.g., Ex. 88, 89 (Sim). Accordingly, the Riviera Conversion is needed for system reliability and integrity.

Issue 11: Is there a need for the conversion of the Riviera plant, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519, *Florida Statutes*?

FPL: *Yes. The Riviera Conversion will take advantage of an existing site and infrastructure, with less cost uncertainty than building a unit at a greenfield site. Furthermore, FPL's analyses show that the resource plan with the Riviera and Cape Canaveral Conversions is projected to save customers $457 million CPVRR.*

The cost of the Riviera Conversion is reasonable, and along with the Cape Canaveral Conversion, it represents the most cost-effective option available to FPL. The total installed cost estimate of $1,276 million for the Riviera Conversion reflects the benefits of taking advantage of an existing site and existing infrastructure, and offers more cost certainty than building a unit at a new greenfield site. Tr. 292 (Tindell); 107 (Silva). As described in Issue 14, the evidence shows that the resource plan that includes the Cape Canaveral Conversion along with the Riviera Conversion is projected to save customers $457 million CPVRR as compared to FPL's Resource Plan without Conversions. Tr. 526-27, 537 (Sim). Accordingly, the Riviera Conversion will provide needed electricity at a reasonable cost.

An increase in the cost of natural gas beyond FPL's forecasted levels would not adversely affect FPL's decision to move forward with the conversion of the Riviera plant. This is true for several reasons. First, after evaluating all the major generating alternatives, it was determined that the only options available to FPL to meet its resource needs in the near term are fueled by

natural gas. Tr. 277 (Tindell). New nuclear or coal-fueled plants could not be sited, approved, and constructed in time to meet the capacity needs of FPL's customers. Id.; 515 (Sim). And, as explained below in Issue 13, all known renewable resources have already been included in FPL's resource plans. Secondly, as fuel prices rise, the efficiency of FPL's system becomes more and more important. Tr. 168 (Silva); See also 545-46 (Sim). The Riviera Conversion will help increase FPL's system efficiency, as described below. Third, an increase in natural gas costs will likewise increase the fuel cost savings realized by customers. See Tr. 527, 536 (Sim). As a result, even if natural gas costs continued to rise, each of FPL's proposed projects would still be the most cost-effective option available to FPL and its customers.

Issue 12: Is there a need for the conversion of the Riviera plant, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. The conversions will improve FPL's system heat rate by about 1.1% compared to the Resource Plan without Conversions, reducing FPL's natural gas use by about 10.6 million MMBtu and fuel oil use by about 47.8 million MMBtu in 2013-2017.*

The Resource Plan with Conversions, which includes the Riviera and Cape Canaveral Conversions, will reduce FPL's natural gas and fuel oil usage as compared to the Resource Plan without Conversions. FPL's system average heat rate will improve by about 1.1% as compared to the Resource Plan without Conversions. Tr. 106-07 (Silva); 530 (Sim). As a result, in 2013 through 2017, the two conversions will reduce FPL's use of natural gas by about 10.6 million MMBtu and fuel oil by about 47.8 million MMBtu. Tr. 107 (Silva); 530 (Sim). The fuel oil reduction alone amounts to approximately 7.5 million barrels of oil saved, as compared to the Resource Plan without Conversions. Tr. 107 (Silva).

It is also evident that there will be adequate natural gas supply available to fuel the converted units for their operating lives. Expert sources show that there is a more than adequate

supply of natural gas from conventional sources. Tr. 545 (Sim). The PIRA Energy Group, for example, has provided FPL with projected natural gas supply and demand balance availability, demonstrating the adequacy of the natural gas supply. Ex. 100 (Stubblefield). With respect to the transportation of that fuel, FPL is currently evaluating several options that will be capable of delivering natural gas to the Riviera site. Natural gas transportation will be available in sufficient time to supply the converted plant. Tr. 383, 387 (Stubblefield).

Additionally, to further enhance fuel supply reliability, the converted plant will use light oil as a backup fuel. Tr. 384-85 (Stubblefield). Light oil will be stored on site in sufficient quantities to allow the Riviera Conversion to operate at full capacity for approximately 105 hours. Id. The location of the Riviera site also provides a unique fuel supply reliability advantage because it can receive waterborne deliveries of backup fuel. Tr. 282 (Tindell); 385 (Stubblefield).

Issue 13: Are there any renewable energy sources and technologies or conservation measures taken by or reasonably available to FPL which might mitigate the need for the conversion of the Riviera plant?

FPL: *No. FPL's forecasted need already accounts for all the cost-effective DSM identified through 2014 and projected through 2017, and available renewable resources including the planned renewal of its existing firm renewable capacity purchase contracts and 126 MW of new renewable firm capacity.*

Neither renewable resources nor cost-effective conservation and DSM can mitigate the need for the Riviera Conversion. FPL's forecasted need already accounts for all the cost-effective DSM identified through the year 2014 plus a projection of continued DSM at planned implementation rates for the years 2015-2017. Tr. 514 (Sim). This DSM includes FPL's current Commission-approved DSM goals and a significant amount of additional DSM that FPL has identified as cost-effective, and the Commission has approved, since the current DSM goals were approved. Tr. 514-15 (Sim).

Similarly, with respect to renewable energy sources, FPL's forecasted need already accounts for the planned renewal of its existing firm renewable capacity purchase contracts currently set to expire in this time frame, as well as another 126 MW of new firm capacity from renewable resources as an estimate of cost-effective firm renewable capacity that is likely to be provided by respondents to a Renewables RFP, unsolicited proposals, and/or FPL's renewable development efforts. Tr. 510 (Sim). And, as explained in more detail in Issue 5 above, even if FPL were to spend an amount equal to the estimated combined cost of WCEC 3 and the conversion projects on renewable energy resources such as solar photovoltaics or solar water heaters, the need for the capacity and other significant benefits provided by each of the proposed projects would not be mitigated by those resources. Tr. 550-52 (Sim).

Finally, it is important to note that any additional cost-effective DSM and renewable energy that may be identified in the future are complementary – not competing – options in this context. Future renewable resources and DSM, if identified and if cost-effective, would still not compete with the economic and environmental benefits provided by the conversion projects. Tr. 109 (Silva). FPL projects that it will need an additional 2,556 MW of capacity through 2017 after the addition of WCEC 3 and the conversion projects, which is more than enough to accommodate any future cost-effective renewable or DSM resources identified. Tr. 150-51, Ex. 5 (Silva).

Issue 14: Is the conversion of the Riviera plant the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. FPL's economic analysis shows that the Cape Canaveral Conversion in 2013 and the Riviera Conversion in 2014 will result in customer cost savings of about $457 million CPVRR as compared to the Resource Plan without Conversions. Increased fuel costs will result in increased fuel cost savings.*

The evidence presented demonstrates that the Plan with Conversions, which includes the Riviera Conversion, is the most cost-effective alternative available to FPL. In reaching this determination, FPL utilized a reasonable range of fuel and environmental costs in its economic analysis. Tr. 381-82 (Stubblefield); 440 (Kosky). And, as described above in Issue 11, higher fuel costs would only increase the relative cost-effectiveness of the Plan with Conversions vs. the alternative Plan without Conversions, given the fact that both available resource plans require the addition of natural gas fueled units. Tr. 515 (Sim).

FPL's economic analysis demonstrates the Plan with Conversions is more cost-effective than its other self-build alternative. The combination of the Cape Canaveral Conversion in 2013 with the Riviera Conversion in 2014 will result in customer cost savings of about $457 million CPVRR as compared to the Resource Plan without Conversions. Tr. 138 (Silva); 526, Ex. 91 (Sim). If environmental costs and fuel costs were to be at the high end of FPL's projected range, the economic benefits to customers would be even greater. Tr. 527 (Sim). Additionally, the Plan with Conversions is more cost-effective than the market based proposals recently received in response to FPL's 2007 RFP. An independent analysis shows that the Plan with Conversions is more than $480 million CPVRR less costly than the procurement of power through power purchase proposals submitted in response to FPL's recent RFP. Tr. 197 (Taylor).

When WCEC 3 in 2011 is combined with the addition of the Cape Canaveral Conversion in 2013 and Riviera Conversion in 2014, the evidence demonstrates that customers will save more than $1.2 billion CPVRR in electricity costs, as compared to a resource plan without WCEC 3 in 2011 and without the conversions. Tr. 537 (Sim).

Issue 15: Based on the resolution of the foregoing issues, should the Commission grant Florida Power & Light Company's petition to determine need for the conversion of the Riviera plant?

FPL: *Yes. The conversion will add reliable, efficient, and cost-effective capacity to FPL's system. When combined, the proposed conversions will result in an estimated $457 million CPVRR of savings, a reduction in fossil fuel use, and a reduction in system cumulative CO_2 emissions of more than 15.7 million tons through 2040.*

The evidence presented demonstrates that both the Riviera Conversion and the Cape Canaveral Conversion satisfy all the criteria listed in Section 403.519, Florida Statutes. The conversions will provide a net addition of 1,069 MW of highly efficient firm generating capacity. In addition to providing firm capacity needed by FPL for reliability purposes, the proposed conversions will result in an estimated $457 million CPVRR of savings (Tr. 526 (Sim)), will reduce FPL's use of natural gas by about 10.6 million MMBtu and fuel oil by about 47.8 million MMBtu in 2013-12017, (Tr. 107 (Silva); 530 (Sim)), and will reduce FPL's system cumulative CO_2 emissions of more than 15.7 million tons through 2040 (Tr. 437, Ex. 85 (Kosky)). In the year 2017 alone, the Plan with Conversions will lower FPL's system CO_2 emissions by approximately 900,000 tons. Tr. 529 (Sim). Accordingly, both the economic and non-economic benefits associated with the Riviera and Cape Canaveral Conversions support an affirmative determination of need.

Issue 16: If an affirmative determination of need is granted, should FPL be required to annually report the budgeted and actual cost compared to the estimated total in-service cost of the proposed Riviera Conversion?

FPL: *FPL will annually report this information. Also, if FPL decides to utilize a different combustion turbine design from the one analyzed in its testimony for the two conversion projects, FPL will report to the Commission the comparative cost advantage of the alternate design chosen.*

FPL will annually report to the Commission the budgeted and actual cost compared to the estimated total in-service cost of the proposed Riviera Conversion. Also, FPL may determine

that a different combustion turbine design for the conversion projects could provide even greater cost savings benefits to its customers. Tr. 155 (Silva). If FPL decides to utilize a different combustion turbine design from the one analyzed in its testimony, FPL will report to the Commission the comparative cost advantage of the alternate design chosen. Such a decision would only be made if the projected costs to FPL's customers measured in terms of system CPVRR would be lower as a result of the use of an alternative design. Tr. 155 (Silva).

C. CONVERSION OF CAPE CANAVERAL PLANT

Issue 17: Should FPL be granted an exemption from Rule 25-22.082, Florida Administrative Code, with respect to the conversion of the Cape Canaveral plant?

FPL: *Yes. The conversion satisfies each of the three available bases for an exemption by providing CPVRR savings to customers, providing highly reliable capacity, and serving the public welfare by reducing emissions and fossil fuel usage. Customers will remain fully protected by the Commission's ratemaking authority.*

For the reasons discussed above in response to Issue 9, FPL should be granted an exemption from Rule 25-22.082, Florida Administrative Code, in its entirety, with respect to the Riviera and Cape Canaveral conversion projects.

Issue 18: Is there a need for the conversion of the Cape Canaveral plant, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. From 2011 through 2017, FPL will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM and available renewable resources. The Cape Canaveral Conversion will provide 427 MW of net generating capacity to help satisfy this need.*

Reliable forecasts show that Florida's population will continue to expand, taking into account the slower growth rate that Florida and FPL's service territory are currently experiencing. Population growth in absolute terms will remain large, even if the percentage increases are somewhat smaller than have been experienced in the past. Tr. 323-24, 342-43, 354

(Morley). This projection of growth, provided by the University of Florida's Bureau of Economic and Business Research ("BEBR"), provides the basis for FPL's customer growth forecast. Tr. 323, 342 (Morley); See Ex. 99 (BEBR's November 2007 forecast). The total growth in customers is in turn a primary driver of FPL's projected peak demand growth. Tr. 323, 342 (Morley). As a result, from 2011 through 2017, FPL projects that it will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM and available renewable resources. Tr. 104 (Silva); 510, 514 (Sim).

FPL also performed a sensitivity analysis using updated information with lower population projections from the University of Florida's BEBR provided in February 2008. That analysis demonstrated that the significant cost savings and other benefits of each project would still be realized with lower customer growth. Tr. 171 (Silva); 538-39 (Sim). Additionally, given the magnitude of FPL's resource needs, the most recent population and customer growth data continues to support the need for the capacity provided by each of FPL's proposed projects in the 2011-2017 time frame.

The conversion of the Cape Canaveral plant will provide 427 MW of highly efficient net generating capacity to help satisfy this need, and will provide a highly reliable source of energy, with an expected equivalent availability factor of approximately 97%. Tr. 283-84 (Tindell). Without the two proposed conversions, or comparable other capacity, FPL will not maintain a 20% reserve margin starting in 2014, even after the addition of WCEC 3 in 2011. See, e.g., Ex. 88, 89 (Sim). Accordingly, the Cape Canaveral Conversion is needed for system reliability and integrity.

Issue 19: Is there a need for the conversion of the Cape Canaveral plant, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. The Cape Canaveral Conversion will take advantage of an existing site and infrastructure, with less cost uncertainty than building a unit at a greenfield site. Furthermore, FPL's analyses show that the resource plan with the Riviera and Cape Canaveral Conversions is projected to save customers $457 million CPVRR.*

The cost of the Cape Canaveral Conversion is reasonable, and along with the Riviera Conversion, it represents the most cost-effective option available to FPL. The total installed cost estimate of $1,115 million reflects the benefits of taking advantage of an existing site and existing infrastructure, and offers more cost certainty than building a unit at a new greenfield site. Tr. 287 (Tindell); 107 (Silva). As described in Issue 22, the evidence shows that the resource plan that includes the Cape Canaveral Conversion along with the Riviera Conversion is projected to save customers $457 million CPVRR as compared to FPL's Resource Plan without Conversions. Tr. 526-27, 537 (Sim). Accordingly, the Cape Canaveral Conversion will provide needed electricity at a reasonable cost.

An increase in the cost of natural gas beyond FPL's forecasted levels would not adversely affect FPL's decision to move forward with the conversion of the Cape Canaveral plant. This is true for several reasons. First, after evaluating all the major generating alternatives, it was determined that the only options available to FPL to meet its resource needs in the near term are fueled by natural gas. Tr. 277 (Tindell). New nuclear or coal-fueled plants could not be sited, approved, and constructed in time to meet the capacity needs of FPL's customers. Id.; 515 (Sim). And, as explained below in Issue 21, all known renewable resources have already been included in FPL's resource plans. Secondly, as fuel prices rise, the efficiency of FPL's system becomes more and more important. Tr. 168 (Silva); See also 545-46 (Sim). The Cape Canaveral Conversion will help increase FPL's system efficiency, as described below. Third, an increase in

natural gas costs will likewise increase the fuel cost savings realized by customers. See 527, 536 (Sim). As a result, even if natural gas costs continued to rise, each of FPL's proposed projects would continue to be the most cost-effective option available to FPL and its customers.

Issue 20: Is there a need for the conversion of the Cape Canaveral plant, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. The conversions will improve FPL's system heat rate by about 1.1% compared to the Resource Plan without Conversions, reducing FPL's natural gas use by about 10.6 million MMBtu and fuel oil use by about 47.8 million MMBtu in 2013-2017.*

The Resource Plan with Conversions, which includes the Riviera and Cape Canaveral Conversions, will reduce FPL's natural gas and fuel oil usage as compared to the Resource Plan without Conversions. FPL's system average heat rate will improve by about 1.1% as compared to the Resource Plan without Conversions. Tr. 106-07 (Silva); 530 (Sim). As a result, in 2013 through 2017, the two conversions will reduce FPL's use of natural gas by about 10.6 million MMBtu and fuel oil by about 47.8 million MMBtu. Tr. 107 (Silva); 530 (Sim). The fuel oil reduction alone amounts to approximately 7.5 million barrels of oil saved, as compared to the Resource Plan without Conversions. Tr. 107 (Silva).

It is also evident that there will be adequate natural gas supply available to fuel the converted units for their operating lives. Expert sources show that there is a more than adequate supply of natural gas from conventional sources. Tr. 545 (Sim). The PIRA Energy Group, for example, has provided FPL with projected natural gas supply and demand balance availability, demonstrating the adequacy of the natural gas supply. Ex. 100 (Stubblefield). With respect to the transportation of that fuel, FPL is currently evaluating several options that will be capable of delivering natural gas to the Cape Canaveral site. Natural gas transportation will be available in sufficient time to supply the converted plant. Tr. 383, 387 (Stubblefield).

Additionally, to further enhance fuel supply reliability, the converted plant will use light oil as a backup fuel. Tr. 384-85 (Stubblefield). Light oil will be stored on site in sufficient quantities to allow the Cape Canaveral Conversion to operate at full capacity for approximately 188 hours. Tr. 384 (Stubblefield). The location of the Cape Canaveral site also provides a unique fuel supply reliability advantage because it can receive waterborne deliveries of backup fuel. Tr. 282 (Tindell); 385 (Stubblefield).

Issue 21: Are there any renewable energy sources and technologies or conservation measures taken by or reasonably available to FPL which might mitigate the need for the conversion of the Cape Canaveral plant?

FPL: *No. FPL's forecasted need already accounts for all the cost-effective DSM identified through 2014 and projected through 2017, and available renewable resources including the planned renewal of its existing firm renewable capacity purchase contracts and 126 MW of new renewable firm capacity.*

Neither renewable resources nor cost-effective conservation and DSM can mitigate the need for the Cape Canaveral Conversion. FPL's forecasted need already accounts for all the cost-effective DSM identified through the year 2014 plus a projection of continued DSM at planned implementation rates for the years 2015-2017. Tr. 514 (Sim). This DSM includes FPL's current Commission-approved DSM goals and a significant amount of additional DSM that FPL has identified as cost-effective, and the Commission has approved, since the current DSM goals were approved. Tr. 514-15 (Sim).

Similarly, with respect to renewable energy sources, FPL's forecasted need already accounts for the planned renewal of its existing firm renewable capacity purchase contracts currently set to expire in this time frame, as well as another 126 MW of new capacity from renewable resources as an estimate of cost-effective firm renewable capacity that is likely to be provided by respondents to a Renewables RFP, unsolicited proposals, and/or FPL's renewable development efforts. Tr. 510 (Sim). And, as explained in more detail in Issue 5 above, even if

FPL were to spend an amount equal to the estimated combined cost of WCEC 3 and the conversion projects on renewable energy resources such as solar photovoltaics or solar water heaters, the need for the capacity and other significant benefits provided by each of the proposed projects would not be mitigated by those resources. Tr. 550-52 (Sim).

Finally, it is important to note that any additional cost-effective DSM and renewable energy that may be identified in the future are complementary – not competing – options in this context. Future renewable resources and DSM, if identified and if cost-effective, would still not compete with the economic and environmental benefits provided by the conversion projects. Tr. 109 (Silva). FPL projects that it will need an additional 2,556 MW of capacity through 2017 after the addition of WCEC 3 and the conversion projects, which is more than enough to accommodate any future cost-effective renewable or DSM resources identified. Tr. 150-51, Ex. 5 (Silva).

Issue 22: Is the conversion of the Cape Canaveral plant the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes?

FPL: *Yes. FPL's economic analysis shows that the Cape Canaveral Conversion in 2013 and the Riviera Conversion in 2014 will result in customer cost savings of about $457 million CPVRR as compared to the Resource Plan without Conversions. Increased fuel costs will result in increased fuel cost savings.*

The evidence presented demonstrates that the Plan with Conversions, which includes the Cape Canaveral Conversion, is the most cost-effective alternative available to FPL. In reaching this determination, FPL utilized a reasonable range of fuel and environmental costs in its economic analysis. Tr. 381-82 (Stubblefield); 440 (Kosky). And, as described above in Issue 19, higher fuel costs would only increase the relative cost-effectiveness of the Plan with Conversions vs. the alternative Plan without Conversions, given the fact that both available resource plans require the addition of natural gas-fueled units. Tr. 515(Sim).

FPL's economic analysis demonstrates the Plan with Conversions is more cost-effective than its other self-build alternative. The combination of the Cape Canaveral Conversion in 2013 with the Riviera Conversion in 2014 will result in customer cost savings of about $457 million CPVRR as compared to the Resource Plan without Conversions. Tr. 138 (Silva); 526, Ex. 91 (Sim). If environmental costs and fuel costs were to be at the high end of FPL's projected range, the economic benefits to customers would be even greater. Tr. 527 (Sim). Additionally, the Plan with Conversions is more cost-effective than the market based proposals recently received in response to FPL's 2007 RFP. An independent analysis shows that the Plan with Conversions is more than $480 million CPVRR less costly than the procurement of power through power purchase proposals submitted in response to FPL's recent RFP. Tr. 197 (Taylor).

When WCEC 3 in 2011 is combined with the addition of the Cape Canaveral Conversion in 2013 and Riviera Conversion in 2014, the evidence demonstrates that customers will save more than $1.2 billion CPVRR in electricity costs, as compared to a resource plan without WCEC 3 in 2011 and without the conversions. Tr. 537 (Sim).

Issue 23: Based on the resolution of the foregoing issues, should the Commission grant Florida Power & Light Company's petition to determine need for the conversion of the Cape Canaveral plant?

FPL: * Yes. The conversion will add reliable, efficient, and cost-effective capacity to FPL's system. When combined, the proposed conversions will result in an estimated $457 million CPVRR of savings, a reduction in fossil fuel use, and a reduction in system cumulative CO_2 emissions of more than 15.7 million tons through 2040.*

The evidence presented demonstrates that both the Riviera Conversion and the Cape Canaveral Conversion satisfy all the criteria listed in Section 403.519, Florida Statutes. The conversions will provide a net addition of 1,069 MW of highly efficient firm generating capacity. In addition to providing firm capacity needed by FPL for reliability purposes, the proposed conversions will result in an estimated $457 million CPVRR of savings (Tr. 526 (Sim)), will

reduce FPL's use of natural gas by about 10.6 million MMBtu and fuel oil by about 47.8 million MMBtu in 2013-2017, (Tr. 107 (Silva); 530 (Sim)), and will reduce FPL's system cumulative CO_2 emissions of more than 15.7 million tons through 2040 (Tr. 437, Ex. 85 (Kosky)). In the year 2017 alone, the Plan with Conversions will lower FPL's system CO_2 emissions by approximately 900,000 tons. Tr. 529 (Sim). Accordingly, both the economic and non-economic benefits associated with the Riviera and Cape Canaveral Conversions support an affirmative determination of need.

Issue 24: If an affirmative determination of need is granted, should FPL be required to annually report the budgeted and actual cost compared to the estimated total in-service cost of the proposed Cape Canaveral Conversion?

FPL: *FPL will annually report this information. Also, if FPL decides to utilize a different combustion turbine design from the one analyzed in its testimony for the two conversion projects, FPL will report to the Commission the comparative cost advantage of the alternate design chosen.*

FPL will annually report to the Commission the budgeted and actual cost compared to the estimated total in-service cost of the proposed Cape Canaveral Conversion. Also, FPL may determine that a different combustion turbine design for the conversion projects could provide even greater cost savings benefits to its customers. Tr. 155 (Silva). If FPL decides to utilize a different combustion turbine design from the one analyzed in its testimony, FPL will report to the Commission the comparative cost advantage of the alternate design chosen. Such a decision would only be made if the projected costs to FPL's customers measured in terms of system CPVRR would be lower as a result of the use of an alternative design. Tr. 155 (Silva).

D. CONSOLIDATED ISSUE

Issue 25 (Stipulated): Should these three dockets be closed?

FPL: *Yes. Upon issuance of an order granting FPL's petitions to determine the need for WCEC 3, the Cape Canaveral Conversion, and the Riviera Conversion, each of these three dockets should be closed.*

Respectfully submitted this 11th day of July, 2008.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished electronically this 11th day of July, 2008, to the following:

Martha C. Brown
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