# 5/30/20083:18:00 PM1age 1 of 1

### **Ruth Nettles**

From:

Jessica\_Cano@fpl.com

Sent:

Friday, May 30, 2008 3:15 PM

To:

Filings@psc.state.fl.us

Cc:

Martha Brown

Subject:

Electronic Filing for Docket Nos. 080203-El, 080245-El & 080246-El / FPL's Prehearing Statement

Attachments: FPL's Prehearing Statement.doc

### **Electronic Filing**

a. Person responsible for this electronic filing:Jessica A. Cano, Esq.700 Universe Boulevard

Juno Beach, FL 33408

(561) 304-5226

Jessica Cano@fpl.com

b. Docket Nos. 080203-EI, 080245-EI & 080246-EI

In re: Florida Power & Light Company's Petition to Determine Need for West County Energy Center Unit 3 Electrical Power Plant

In re: Florida Power & Light Company's

Petition to Determine Need for Conversion of Riviera Plant

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 21 pages in the attached document.
- e. The document attached for electronic filing is Florida Power & Light Company's Prehearing Statement.

(See attached file: FPL's Prehearing Statement.doc)

Jessica Cano Attorney Law Department

Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408 561-304-5226 Jessica\_Cano@fpl.com

DOCUMENT HUMBER-CATE

04631 MAY 30 8

FPSC-COMMISSION CLERK

### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

| In re: Florida Power & Light Company's     | )           | Docket No. 080203-EI |
|--|-------------|----------------------|
| Petition to Determine Need for West Coun   | ity)        |                      |
| Energy Center Unit 3 Electrical Power Plan | <u>nt</u> ) |                      |
|  |             |                      |
| In re: Florida Power & Light Company's     | )           | Docket No. 080245-EI |
| Petition to Determine Need for             | )           |                      |
| Conversion of Riviera Plant                | )           |                      |
|  |             |                      |
| In re: Florida Power & Light Company's     | )           | Docket No. 080246-EI |
| Petition to Determine Need for             | )           |                      |
| Conversion of Cape Canaveral Plant         | )           | Filed: May 30, 2008  |
|  | -           | •                    |

# FLORIDA POWER & LIGHT COMPANY'S PREHEARING STATEMENT

Florida Power & Light Company ("FPL" or the "Company"), pursuant to Order No. PSC-08-0257-PCO-EI, issued April 25, 2008, and Order No. PSC-08-0330-PCO-EI, issued May 22, 2008, hereby files with the Florida Public Service Commission ("FPSC" or the "Commission") its Prehearing Statement in connection with its Petition to Determine Need for West County Energy Center Unit 3 Electrical Power Plant ("WCEC 3"), Petition to Determine Need for Conversion of Cape Canaveral Plant ("Cape Canaveral Conversion"), and Petition to Determine Need for Conversion of Riviera Plant ("Riviera Conversion"), and states:

### I. FPL WITNESSES

| Witness                               | Subject Matter                                   |
|---------------------------------------|--|
| Rene Silva                            | Discusses FPL's resource needs, the self-build   |
| Senior Director,                      | alternatives to WCEC 3, and the proposals        |
| Resource Assessment and Planning      | received in response to FPL's 2007 Request for   |
| Florida Power & Light Company         | Proposals ("RFP"). Explains that the addition of |
| • • • • • • • • • • • • • • • • • • • | WCEC 3 in 2011 is the best, most cost-effective  |
|                                       | self-build option. Discusses the projected       |
|                                       | benefits of WCEC 3 and explains why the          |
|                                       | addition of WCEC 3 in 2011 is necessary to       |
|                                       | proceed with the Cape Canaveral Conversion and   |
|                                       | Riviera Conversion as well as the adverse        |

04631 MAY 30 8

FPSC-COMMISSION CLERK

|   | consequences if the need for WCEC 3 in 2011 is not granted.  Discusses the Cape Canaveral Conversion and Riviera Conversion, as well as the projected benefits associated with those conversions. Explains that the conversions are the best, most cost-effective self-build option and also the most cost-effective option when compared to market proposals received in response to FPL's RFP.   |
|---|--|
| John C. Gnecco IV Manager of Project Development Florida Power & Light Company              | Describes the proposed WCEC 3 project and explains that WCEC 3 will use highly efficient, low-emission combined cycle technology. Explains that FPL has a great deal of experience building and operating the proposed type of generating unit and supports the accuracy of FPL's construction cost estimate and projected unit capabilities. Explains that the site is optimal due to the lack of any impact on environmentally sensitive lands or fuel supply constraints and the ability to take advantage of existing transmission infrastructure.   |
| Cindy Tindell Senior Director of Development Florida Power & Light Company                  | Describes the proposed Cape Canaveral Conversion and Riviera Conversion projects, including estimated costs and project schedules, and explains that the conversions will deliver low cost, efficient, clean energy to customers without using additional land, water sources, or transmission rights-of-way. Explains that FPL has a great deal of experience building and operating the proposed type of generating units and supports the accuracy of FPL's construction cost estimates and projected unit capabilities. Presents the non-economic benefits of the conversions, which include aesthetic improvements to the sites and the ability of each site to receive back-up fuel from water borne deliveries. |
| Dr. Rosemary Morley Director of Load Forecasting and Analysis Florida Power & Light Company | Describes FPL's load forecasting process and the underlying methodologies and assumptions. Explains that continued growth in customers, peak demand, and net energy for load is expected. Presents the forecasts utilized in the resource  |

|   | planning process which demonstrate the need for  |
|---|--|
|   | WCEC 3, the Cape Canaveral Conversion, and the Riviera Conversion.   |
| Heather C. Stubblefield Manager Project Development Energy Marketing and Trading Division Florida Power & Light Company | Presents FPL's fuel price forecast used in the evaluation of WCEC 3, FPL's other self-build options, and the proposals received in response to FPL's RFP. Explains how natural gas and back-up fuel will be delivered to WCEC 3, and that contracting for additional firm transportation on the Florida Gas Transmission System pipeline was more cost-effective and provided more flexibility than acquiring additional transportation on the Gulfstream Natural Gas System pipeline.   |
|   | Presents the updated fuel price forecast used in the evaluation of the Cape Canaveral Conversion and the Riviera Conversion. Explains how back-up fuel will be delivered to the converted units and that FPL is evaluating several natural gas delivery options which will be able to serve the converted units.   |
| Kennard F. Kosky Principal Golder Associates, Inc   | Provides an overview of the key environmental impacts of WCEC 3, the Cape Canaveral Conversion, and the Riviera Conversion, and the costs of compliance with environmental requirements. Explains that the advanced combined cycle technology and environmental controls used by each of the projects will meet environmental regulatory requirements, that the technology selected for each project is the best available alternative from an environmental perspective, and that the projected environmental compliance costs used in the economic evaluation of the projects are an appropriate estimate of possible costs. |
| Dr. Steven R. Sim Senior Manager, Resource Assessment and Planning Florida Power & Light Company                        | Discusses FPL's resource planning process and the projection of additional resource needs beginning in 2011, which was the basis of the analysis of FPL's self-build options and the proposals submitted in response to FPL's 2007 RFP.  |
|   | Explains that eight resource plans were developed  |

to analyze the addition of WCEC 3 in 2011, and that the analysis shows that the addition of WCEC 3 in 2011 is the clear economic choice. Demonstrates that the resource plan including WCEC 3 in 2011 is at least \$606 million less expensive in terms of cumulative present value of revenue requirements ("CPVRR") than any resource plan including one or more market proposals, and is \$137 to \$460 million CPVRR less expensive than the resource plans including a later FPL self-build option.

Explains that two resource plans were developed to analyze the Cape Canaveral Conversion and the Riviera Conversion – the Resource Plan with Conversions and the Resource Plan without Conversions. Demonstrates that the Resource Plan with Conversions is \$457 million CPVRR less expensive, will reduce FPL's system cumulative CO<sub>2</sub> emissions by more than 15.7 million tons, and will reduce FPL's annual system usage of oil and natural gas upon commercial operation.

Alan S. Taylor President Sedway Consulting, Inc. Describes his role as an independent evaluator of FPL's RFP. Discusses the economic evaluation of WCEC 3 and the market proposals received, and his conclusion that the portfolio including WCEC 3 in 2011 is the most cost-effective portfolio to meet FPL's resource needs for 2011-2013.

Presents his economic evaluation of the Cape Canaveral Conversion and Riviera Conversion in comparison to the proposals received in response to FPL's RFP, and his conclusion that the conversions are more cost-effective than the proposed alternatives that were submitted.

### II. EXHIBITS

| WCEC 3 | Description   | Sponsoring Witness |
|--------|---|--------------------|
| RS-1   | Summary of Benefits of West County<br>Energy Center Unit 3 (WCEC 3) in 2011 | Rene Silva         |

| RS-2  | FPL's Flexibility to Incorporate Increased DSM and Renewable Resources into Its Resource Plan | Rene Silva          |
|-------|---|---------------------|
| JCG-1 | Typical 3x1 CC Unit Process Diagram   | John C. Gnecco IV   |
| JCG-2 | FPL Operational Combined Cycle Plants & FPL Combined Cycle Construction Projects in Progress  | John C. Gnecco IV   |
| JCG-3 | WCEC Vicinity Map   | John C. Gnecco IV   |
| JCG-4 | WCEC Aerial Map   | John C. Gnecco IV   |
| JCG-5 | WCEC 3 Proposed Power Block Area  | John C. Gnecco IV   |
| JCG-6 | WCEC 3 Fact Sheet   | John C. Gnecco IV   |
| JCG-7 | WCEC 3 Overall Water Balance  | John C. Gnecco IV   |
| JCG-8 | WCEC 3 Expected Construction Schedule   | John C. Gnecco IV   |
| RM-1  | Total Average Customers   | Dr. Rosemary Morley |
| RM-2  | Summer Peak Load Per Customer (KW)  | Dr. Rosemary Morley |
| RM-3  | Summer Peak Weather   | Dr. Rosemary Morley |
| RM-4  | Florida Real Personal Income  | Dr. Rosemary Morley |
| RM-5  | Real Price of Electricity   | Dr. Rosemary Morley |
| RM-6  | Impact of the 2005 Energy Policy Act  | Dr. Rosemary Morley |
| RM-7  | Lee County Electric Cooperative<br>Summer Peak  | Dr. Rosemary Morley |
| RM-8  | Summer Peak Load (MW)   | Dr. Rosemary Morley |
| RM-9  | Winter Peak Load Per Customer (KW)  | Dr. Rosemary Morley |
| RM-10 | Winter Peak Load (MW)   | Dr. Rosemary Morley |
| RM-11 | Net Energy for Load Use Per Customer  | Dr. Rosemary Morley |

|        | (KWH)  |                         |
|--------|--|-------------------------|
| RM-12  | Lee County Electric Cooperative – Net<br>Energy for Load   | Dr. Rosemary Morley     |
| RM-13  | Net Energy for Load (GWh)  | Dr. Rosemary Morley     |
| RM-1   | Total Average Customers  | Dr. Rosemary Morley     |
| HCS-1  | FPL's Fuel Cost Forecast   | Heather C. Stubblefield |
| KFK-1  | Curriculum vitae of Kennard F. Kosky   | Kennard F. Kosky        |
| KFK-2  | Reductions in carbon dioxide (CO <sub>2</sub> ) emissions for 2001 through 2017 in FPL's system with WCEC 3                              | Kennard F. Kosky        |
| KFK-3  | 2017 CO <sub>2</sub> emissions in FPL's system without WCEC 3, with WCEC 3 and with WCEC 3 and the opportunity to convert existing units | Kennard F. Kosky        |
| SRS-1  | Initial Projection of FPL's 2011 – 2017<br>Capacity Needs  | Dr. Steven R. Sim       |
| SRS-2  | Evaluation of FPL Self-Build Options;<br>Resource Plans Analyzed   | Dr. Steven R. Sim       |
| SRS-3  | Evaluation of FPL Self-Build Options:<br>Economic Analysis Results   | Dr. Steven R. Sim       |
| SRS-4  | FPL's 2007 request for Proposals Resource<br>Need: 2001 & 2012   | Dr. Steven R. Sim       |
| SRS-5  | List of Organizations Submitting Proposals   | Dr. Stephen R. Sim      |
| SRS-6  | Proposal Details   | Dr. Steven R. Sim       |
| SRS-7  | FPL's Ten Year Power Plant Site Plan: 2008 – 2017  | Dr. Steven R. Sim       |
| SRS-9  | Summary of Resource Plans Evaluated  | Dr. Steven R. Sim       |
| SRŞ-10 | Economic Evaluation Results for Resource<br>Plans – Generation System Costs Only   | Dr. Steven R. Sim       |
| SRS-11 | Economic Evaluation Results for Resource plans – Generation System and   | Dr. Steven R. Sim       |

|        | Transmission-Related Costs Only                               |                   |
|--------|---|-------------------|
| SRS-12 | Calculation of Peak Hour Loss Cost for<br>Resource Plan 2     | Dr. Steven R. Sim |
| SRS-13 | Calculation of Annual Energy Loss Cost for Resource Plan 2    | Dr. Steven R. Sim |
| SRS-14 | Economic Evaluation Results for Resource<br>Plans – All Costs | Dr. Steven R. Sim |
| SRS-15 | Non-Economic Evaluation Results                               | Dr. Steven R. Sim |
| AST-1  | Resume of Alan S. Taylor                                      | Alan S. Taylor    |
| AST-2  | Sedway Consulting's Independent<br>Evaluation Report          | Alan S. Taylor    |

| Cape Canaveral and Riviera | Description  | Sponsoring Witness |
|----------------------------|--|--------------------|
| Conversions                |  |                    |
| RS-1                       | Summary of Benefits of Canaveral and Riviera Conversions                                     | Rene Silva         |
| RS-2                       | FPL's Flexibility to Incorporate Increased DSM & Renewable Resources                         | Rene Silva         |
| RS-3                       | Calculation of FPL's Reserve Margin  | Rene Silva         |
| RS-4                       | Example Why 15% Reserve Margin is Inadequate   | Rene Silva         |
| CT-1                       | FPL Operational Combined Cycle Plants & FPL Combined Cycle Construction Projects in Projects | Cindy Tindell      |
| CT-2                       | Cape Canaveral Plant Vicinity Map  | Cindy Tindell      |
| CT-3                       | CCEC Site Layout with Power Block  | Cindy Tindell      |
| CT-4                       | Cape Canaveral Energy Center Fact<br>Sheet   | Cindy Tindell      |
| CT-5                       | CCEC Expected Construction Schedule  | Cindy Tindell      |
| CT-6                       | CCEC Construction Cost Components  | Cindy Tindell      |
| CT-7                       | Riviera Plant Vicinity Map   | Cindy Tindell      |
| CT-8                       | RBEC Site Layout with Power Block  | Cindy Tindell      |
| CT-9                       | RBEC Fact Sheet  | Cindy Tindell      |

| CT-10 | RBEC Expected Construction Schedule  | Cindy Tindell           |
|-------|--|-------------------------|
| CT-11 | RBEC Construction Cost Components  | Cindy Tindell           |
| RM-1  | Total Average Customers  | Dr. Rosemary Morley     |
| RM-2  | Summer Peak Load Per Customer  | Dr. Rosemary Morley     |
| RM-3  | Summer Peak Weather  | Dr. Rosemary Morley     |
| RM-4  | Florida Real Personal Income   | Dr. Rosemary Morley     |
| RM-5  | Real Price of Electricity  | Dr. Rosemary Morley     |
| RM-6  | Impact of the 2005 Energy Policy Act   | Dr. Rosemary Morley     |
| RM-7  | Lee County Electric Cooperative –<br>Summer Peak   | Dr. Rosemary Morley     |
| RM-8  | Summer Peak Load   | Dr. Rosemary Morley     |
| RM-9  | Winter Peak Load Per Customer  | Dr. Rosemary Morley     |
| RM-10 | Winter Peak Load   | Dr. Rosemary Morley     |
| RM-11 | Net Energy for Load Use Per Customer   | Dr. Rosemary Morley     |
| RM-12 | Lee County Electric Cooperative – Net<br>Energy for Load   | Dr. Rosemary Morley     |
| RM-13 | Net Energy for Load  | Dr. Rosemary Morley     |
| HCS-1 | FPL's Fuel Cost Forecast   | Heather C. Stubblefield |
| KFK-1 | KRK Curriculum Vitae   | Kennard F. Kosky        |
| KFK-2 | Sulfur dioxide (SO2), nitrogen oxides (NOx) and Particulate Matter emissions (tons/year) for Riviera Plant (before and after conversion) | Kennard F. Kosky        |
| KFK-3 | SO2, NOx and Particulate Matter emissions (tons/year) for Cape Canaveral Plant (before and after conversion)                             | Kennard F. Kosky        |
| KFK-4 | SO2, NOx and Particulate Matter emission rate (1b/MWh) for Riviera Plant before and after conversion                                     | Kennard F. Kosky        |
| KFK-5 | SO2, NOx and Particulate Matter emission rate (1b/MWh) for Cape Canaveral Plant (before and after conversion)                            | Kennard F. Kosky        |
| KFK-6 | Carbon dioxide (CO <sub>2</sub> ) emission rate (1b/MWh) for Riviera Plant (before and   | Kennard F. Kosky        |

|       | after conversion)  | , , , , , , , , , , , , , , , , , , , |
|-------|--|---------------------------------------|
| KFK-7 | Carbon dioxide (CO <sub>2</sub> ) emission rate (1b/MWh) for Cape Canaveral Plant (before and after conversion)                  | Kennard F. Kosky                      |
| KFK-8 | Annual Emissions Comparison by Generation Type – CO <sub>2</sub> Emissions   | Kennard F. Kosky                      |
| SRS-1 | FPL's Ten-Year Power Plant Site Plan 2008-2017   | Dr. Steven R. Sim                     |
| SRS-2 | Projection of FPL's Capacity Needs: 2008-2017  | Dr. Steven R. Sim                     |
| SRS-3 | Resource Plans Utilized in the Analyses: 2010-2040   | Dr. Steven R. Sim                     |
| SRS-4 | Comparison of Two Resource Plans:<br>Projection of Annual Summer Reserve<br>Margins 2010-2017                                    | Dr. Steven R. Sim                     |
| SRS-5 | Economic Evaluation Results for Two<br>Resource Plans – Generation System<br>Costs Only  | Dr. Steven R. Sim                     |
| SRS-6 | Economic Evaluation Results for Two<br>Resource Plans – All Costs  | Dr. Steven R. Sim                     |
| SRS-7 | Comparison of Two Resource Plans:<br>Projection of System Emissions 2010-<br>2017  | Dr. Steven R. Sim                     |
| SRS-8 | Comparison of Two Resource Plans:<br>Projected 2017 System CO <sub>2</sub> Emission<br>Levels                                    | Dr. Steven R. Sim                     |
| SRS-9 | Comparison of Two Resource Plans:<br>Projection of System Oil and Natural<br>Gas Usage 2013-2017                                 | Dr. Steven R. Sim                     |
| AST-1 | Resume of Alan S. Taylor   | Alan S. Taylor                        |
| AST-2 | Sedway Consulting, Inc. – Independent<br>Evaluation Report for FPL Proposed<br>Cape Canaveral and Riviera Conversion<br>Projects | Alan S. Taylor                        |

In addition to the above pre-filed exhibits, FPL reserves the right to utilize any exhibit introduced by any other party. FPL additionally reserves the right to introduce any additional exhibit necessary for rebuttal, cross-examination or impeachment at the final hearing.

### III. STATEMENT OF BASIC POSITION

FPL proposes adding West County Energy Center Unit 3 ("WCEC 3") in 2011 at an existing generating plant site in Palm Beach County. Due to its very high efficiency, WCEC 3 is expected to save FPL's customers about \$460 million dollars CPVRR in electricity costs, while operating with excellent environmental performance – the operation of WCEC 3 will actually reduce FPL's total electric system emissions. FPL's Request for Proposals process showed that WCEC 3 will result in about \$606 million CPVRR in lower electricity costs compared to purchasing electricity from other companies. The addition of WCEC 3 in 2011 is also more cost-effective than the addition of a similar unit by FPL in 2012 by approximately \$137 million CPVRR, or a similar unit in 2013 by approximately \$460 million CPVRR. Adding WCEC 3 in 2011 also makes it possible, from an electric system reliability perspective, for FPL to consider converting generating units at two existing plants in 2013 and 2014 to new, cleaner, highly efficient units.

FPL also proposes to convert its Cape Canaveral plant (the "Cape Canaveral Conversion") and Riviera plant (the "Riviera Conversion") by removing the 1960s era steam electric generating units currently operating at those sites and installing at each site one highly efficient combined cycle power plant. The Cape Canaveral Conversion will go into service in 2013, and the Riviera Conversion will go into service in 2014. Each conversion project will provide needed and very efficient generation capacity to FPL's system, reduce customer's electricity costs, and reduce  $CO_2$  and other air emissions without requiring new land for the converted units of their associated transmission facilities. When the Cape Canaveral Conversion and Riviera Conversion are evaluated together, customer savings are expected to be \$457 million CPVRR as compared to the Resource Plan without Conversions. Additionally, the two

conversions will reduce FPL's system cumulative CO<sub>2</sub> emissions through 2040 by more than 15.7 million tons.

With the addition of WCEC 3 in 2011, the Cape Canaveral Conversion in 2013, and the Riviera Conversion in 2014, customers should save more than an estimated \$1,193 million CPVRR and an even greater reduction in CO<sub>2</sub> emissions will be realized, making great progress toward achieving the CO<sub>2</sub> reduction targets reflected in Governor Crist's Executive Order No. 07-127 and whatever specific legal requirements may be implemented as a result of that Order or pursuant to federal law.

Each project satisfies the statutory elements for granting an affirmative determination of need pursuant to section 403.519, Florida Statutes. FPL has complied with Rule 25-22.082 ("the Bid Rule") with respect to the decision to construct WCEC 3 by issuing a Request for Proposals in December of 2007. The Cape Canaveral Conversion and the Riviera Conversion should be granted an exemption from the Bid Rule pursuant to subsection 18 of that rule. Each conversion project meets the criteria for receiving such an exemption because it will result in a lower cost supply of electricity to customers, increase the reliable supply of electricity, and otherwise serve the public welfare by, for example, reducing CO<sub>2</sub> emissions.

### IV. ISSUES AND POSITIONS

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 issued a Request for Proposals ("RFP") consistent with the requirements of Rule 25-22.082 ("the Bid Rule") on December 13, 2007. 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. FPL's analysis of the proposals showed that WCEC 3 was more than \$600 million CPVRR less costly than the next best alternative proposed in the RFP. An independent evaluator also conducted an economic evaluation and review of

FPL's RFP evaluation process, and confirmed the significant cost advantage of WCEC 3 over the competing alternatives proposed. (Silva, Sim, Taylor)

Issue 2: Should FPL be granted an exemption from Rule 25-22.082, Florida Administrative Code, with respect to the conversion of the Cape Canaveral plant and the Riviera plant?

FPL: Yes. Subsection 18 of Rule 24-22.082 provides an exemption for proposals which will likely (i) result in a lower cost supply of electricity, (ii) increase the reliable supply of electricity to the utility's ratepayers, or (iii) otherwise serve the public welfare. Each of these conversions satisfies all three available bases for an exemption by (i) providing CPVRR savings to customers, (ii) providing highly reliable capacity, and (iii) serving the public welfare by reducing CO<sub>2</sub> emissions. (Silva, Sim, Taylor)

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. There is a need for WCEC 3, taking into account the need for electric system reliability and integrity. From 2011 through 2017, FPL will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM. WCEC 3 will provide 1,219 MW of highly efficient capacity to help satisfy this need. Furthermore, WCEC 3 will be a highly reliable source of energy, with an equivalent availability factor of approximately 97%. (Silva, Morley, Sim)

Issue 4: 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?

Yes. There is a need for the Cape Canaveral Conversion, taking into account the need for electric system reliability and integrity. From 2011 through 2017, FPL will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM. The Cape Canaveral Conversion will provide 427 MW of net generating capacity to help satisfy that need, and will be a highly reliable unit with an equivalent availability factor of approximately 97%. Without the two proposed conversions, or comparable other capacity, FPL would not maintain a 20% reserve margin starting in 2014, even after the addition of WCEC 3 in 2011. Accordingly, the Cape Canaveral Conversion is needed for system reliability and integrity. (Silva, Morley, Sim)

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. There is a need for the Riviera Conversion, taking into account the need for electric system reliability and integrity. From 2011 through 2017, FPL will need to add 4,844 MW of new generating capacity, after accounting for all identified cost-effective DSM. The Riviera Conversion will provide 642 MW of net generating capacity to help satisfy that need, and will be a highly reliable unit with an equivalent availability factor of approximately 97%. 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. Accordingly, adding the Riviera Conversion is needed for system reliability and integrity. (Silva, Morley, Sim)

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. There is a need for WCEC 3, taking into account the need for adequate electricity at a reasonable cost. The estimated total installed cost for WCEC 3 is \$864.7 million, in 2011 dollars. WCEC 3 will take advantage of an existing site and existing infrastructure, with considerably less cost uncertainty than building a unit at a new Greenfield site at a later time. Furthermore, FPL's analyses show 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, and more than \$600 million CPVRR as compared to the alternatives provided in response to FPL's 2007 RFP, as described below in Issue 15. Accordingly, the addition of WCEC 3 in 2011 will provide needed electricity at a reasonable cost. (Gnecco, Sim)

- Issue 7: 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. There is a need for the Cape Canaveral Conversion, taking into account the need for adequate electricity at a reasonable cost. The estimated total installed cost for the Cape Canaveral Conversion is \$1,115 million in 2013 dollars. The Cape Canaveral Conversion will take advantage of an existing site and existing infrastructure, with considerably less cost uncertainty than building a unit at a new Greenfield site. Furthermore, FPL's analyses show that the resource plan that includes the Cape Canaveral Conversion along with the Riviera Conversion is projected to save customers \$457 million CPVRR, as described below in Issue 16. Accordingly, the Cape Canaveral Conversion will provide needed electricity at a reasonable cost. (Tindell, Sim)
- 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. There is a need for the Riviera Conversion, taking into account the need for adequate electricity at a reasonable cost. The estimated total installed cost for the Riviera Conversion is \$1,276 million in 2014 dollars. The Riviera Conversion will take advantage of an existing site and existing infrastructure, with considerably less cost uncertainty than building a unit at a new Greenfield site. Furthermore, FPL's analyses show that the resource plan that includes the Riviera Conversion along with the Cape Canaveral Conversion is projected to save customers \$457 million CPVRR, as described below in Issue 17. Accordingly, the Riviera Conversion will provide needed electricity at a reasonable cost. (Tindell, Sim)

Issue 9:

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. There is a need for WCEC 3, taking into account the need for fuel diversity and supply reliability. WCEC 3 will be fueled by natural gas, and to enhance fuel supply reliability, it will use light oil as a backup fuel. Light oil will be stored on site in sufficient quantities to allow the entire West County Energy Center to operate at full capacity for approximately 72 hours.

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. The fuel oil reduction alone amounts to 2.1 million fewer barrels of oil used to provide electric service during that time period. (Silva, Stubblefield, Sim)

Issue 10:

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. There is a need for the Cape Canaveral Conversion, taking into account the need for fuel diversity and supply reliability. The Cape Canaveral Conversion will be fueled by natural gas, and to enhance fuel supply reliability, it will use light oil as a backup fuel. 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.

The Cape Canaveral Conversion will improve FPL's average system heat rate, and when combined with the Riviera Conversion, FPL's system average heat rate will improve by about 1.1% as compared to the Resource Plan without Conversions. 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. The fuel oil reduction alone amounts to approximately 7.5

million barrels of oil saved, as compared to the Resource Plan without Conversions. (Silva, Stubblefield, Sim)

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. There is a need for the conversion of the Riviera plant, taking into account the need for fuel diversity and supply reliability. The Riviera Conversion will be fueled by natural gas, and to enhance fuel supply reliability, it will use light oil as a backup fuel. Light oil will be stored on site in sufficient quantities to allow the Cape Canaveral Conversion to operate at full capacity for approximately 105 hours.

The Riviera Conversion will improve FPL's average system heat rate, and when combined with the Cape Canaveral Conversion, FPL's system average heat rate will improve by about 1.1% as compared to the Resource Plan without Conversions. 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. The fuel oil reduction alone amounts to approximately 7.5 million barrels of oil saved, as compared to the Resource Plan without Conversions. (Silva, Stubblefield, Sim)

Issue 12: 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. Neither renewable resources nor 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. 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.

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, 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 responses to a Renewables RFP and/or FPL's development efforts. Any additional cost-effective DSM and renewable energy that may be identified in the future are complementary – not competing – options. (Silva, Sim)

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 Cape Canaveral plant?

FPL:

No. Neither renewable resources nor 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. 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.

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, 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 responses to a Renewables RFP and/or FPL's development efforts. Any additional cost-effective DSM and renewable energy that may be identified in the future are complementary – not competing – options. (Silva, Sim)

Issue 14: 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. Neither renewable resources nor 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. 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.

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, 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 responses to a Renewables RFP and/or FPL's development efforts. Any additional cost-effective DSM and renewable energy that may be identified in the future are complementary – not competing – options. (Silva, Sim)

Issue 15: Is WCEC 3 the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes?

FPL:

Yes. WCEC 3 is the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes. FPL's economic analysis utilized a reasonable range of fuel and environmental costs, and shows that adding WCEC 3 in 2011 will result in customer savings of about \$460 million CPVRR compared to adding a similar unit in 2013, and savings of about \$137 million CPVRR compared to adding WCEC 3 in 2012.

Additionally, a resource plan incorporating the next best alternative provided in response to FPL's RFP is over \$600 million CPVRR more expensive than the resource plan based on the addition of WCEC 3 in 2011. As a result, the addition of WCEC 3 in 2011 is more cost-effective than the alternative self-build options and more cost-effective than the alternatives proposed in response to FPL's RFP.

When combined with the addition of the Cape Canaveral Conversion in 2013 and Riviera Conversion in 2014, FPL's analysis demonstrates that customers will save more than \$1,193 million CPVRR in electricity costs as compared to the Resource Plan without Conversions. (Stubblefield, Kosky, Sim, Taylor)

# Issue 16: 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. The conversion of the Cape Canaveral plant is the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes. FPL's economic analysis utilized a reasonable range of fuel and environmental costs, and shows that combining 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. 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.

Additionally, an independent analysis shows that a resource plan including both proposed conversions is more than \$480 million less costly than an alternative resource plan including the lowest market proposals offered in response to FPL's RFP.

When combined with the addition of WCEC 3 in 2011 and Riviera Conversion in 2014, FPL's analysis demonstrates that customers will save more than \$1,193 million CPVRR in electricity costs as compared to the Resource Plan without Conversions. (Stubblefield, Kosky, Sim, Taylor)

# Issue 17: 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. The conversion of the Riviera plant is the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes. FPL's economic analysis utilized a reasonable range of fuel and environmental costs, and shows that combining 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. 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.

Additionally, an independent analysis shows that a resource plan including both proposed conversions is more than \$480 million less costly than an alternative resource plan including the lowest market proposals offered in response to FPL's RFP.

When combined with the addition of WCEC 3 in 2011 and the Cape Canaveral Conversion in 2013, FPL's analysis demonstrates that customers will save more than \$1,193 million CPVRR in electricity costs as compared to the Resource Plan without Conversions. (Stubblefield, Kosky, Sim, Taylor)

- Issue 18: 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 among the many alternatives considered and will provide needed electricity at a reasonable cost. Additionally, it will reduce FPL's system oil and natural gas fuel usage and make it possible, from a system reliability perspective, to pursue the Cape Canaveral Conversion and the Riviera Conversion. (Silva, Sim)
- Issue 19: 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 Cape Canaveral Conversion will result in the addition of highly efficient and reliable capacity, customer savings on a CPVRR basis, and a significant reduction in CO<sub>2</sub> emissions. When combined, the two proposed conversions will result in an estimated \$457 million CPVRR of savings and a reduction in FPL's system cumulative CO<sub>2</sub> emissions of more than 15.7 million tons through 2040. (Silva, Kosky, Sim)
- Issue 20: 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 Riviera Conversion will result in the addition of highly efficient and reliable capacity, customer savings on a CPVRR basis, and a significant reduction in CO<sub>2</sub> emissions. When combined, the two proposed conversions will result in an estimated \$457 million CPVRR of savings and a reduction in FPL's system cumulative CO<sub>2</sub> emissions of more than 15.7 million tons through 2040. (Silva, Kosky, Sim)
- Issue 21: 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, Cape Canaveral Conversion, and Riviera Conversion?

FPL:

FPL will annually report the budgeted and actual cost compared to the estimated total in-service cost of the proposed WCEC 3, Cape Canaveral Conversion, and Riviera Conversion. In addition, 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. Such a selection 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 alternate design. (Silva)

### Issue 22: Should these three dockets be closed?

FPL:

Yes. Upon issuance of an order granting FPL's petitions to determine the need for WCEC3, the Cape Canaveral Conversion, and the Riviera Conversion, each of these three dockets should be closed.

### V. POLICY ISSUES

FPL believes issues 18-21 involve issues of policy.

#### VI. STIPULATED ISSUES

There are no stipulated issues at this time.

### VII. PENDING MOTIONS

There are no motions pending at this time.

### VIII. PENDING REQUESTS FOR CONFIDENTIAL CLASSIFICATION

There are no requests for confidential classification pending at this time.

# X. REQUIREMENTS OF THE PREHEARING ORDER THAT CANNOT BE MET

At this time, FPL is not aware of any requirements in the Order Establishing Procedure with which it cannot comply.

# XI. OBJECTIONS TO WITNESSES' QUALIFICATIONS

At this time, only witnesses for FPL have filed testimony. Accordingly, FPL has no objections to any witness qualifications.

Respectfully submitted this 30th day of May, 2008.

R. Wade Litchfield
Vice President and Associate General Counsel
Bryan S. Anderson
Jessica A. Cano
Attorneys for
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408-0420

By: s/Bryan S. Anderson

Bryan S. Anderson

Fla. Authorized House Counsel No. 219511

# **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished electronically and by U.S. mail this 30th day of May, 2008, to the following:

Martha C. Brown Senior Attorney Florida Public Service Commission Gerald L. Gunter Building 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

By: s/Bryan S. Anderson

Bryan S. Anderson

Fla. Authorized House Counsel No. 219511