

ORIGINAL

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Subject: Electronic Filing for Docket No. 070098-EI / FPL's Prehearing Statement

Attachments: FPL's Prehearing Statement_3-30-07.doc



FPL's
Prehearing Statement

Electronic Filing

a. Person responsible for this electronic filing:

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b. Docket No. 070098-EI

In re: Florida Power & Light Company's Petition to Determine Need for FPL Glades Power Park
Units 1 and 2 Electrical Power Plant

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

d. There are a total of 35 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_3-30-07.doc)

Thank you for your attention and cooperation to this request.

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DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Florida Power & Light Company's) Docket No. 070098-EI
Petition to Determine Need for FPL Glades)
Power Park Units 1 and 2 Electrical Power Plant) Date Filed: March 30, 2007

FLORIDA POWER & LIGHT COMPANY'S PREHEARING STATEMENT

Florida Power & Light Company ("FPL" or the "Company"), pursuant to Order No. 07-0120-PCO-EI, issued February 9, 2007, files with the Florida Public Service Commission (the "FPSC" or the "Commission"), its Prehearing Statement in connection with its petition to determine need for FPL Glades Power Park Units 1 and 2 electrical power plant ("FGPP"), and states:

I. FPL WITNESSES

A. Direct Testimony

<p>Armando J. Olivera President Florida Power & Light Company (Direct)</p>	<p>Provides an overview of FPL's request, describing significant challenges of meeting the growing demand for electricity, addressing the need for system fuel diversity, discussing the economic uncertainties associated with this project compared to projects in previous need determination proceedings, and explaining how such uncertainties and other unique circumstances should affect the selection of the best resource option in this proceeding.</p>
<p>Rene Silva Director of Resource Assessment and Planning Florida Power & Light Company (Direct)</p>	<p>Supports FPL's request that the Commission grant an affirmative determination of need for the addition of the proposed FGPP Units 1 and 2, authorizing FPL to build these two ultra-supercritical pulverized coal (USCPC) generating units, including the associated transmission, interconnection and integration facilities, and place them in service by June 2013 and June 2014,</p>

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FPSC-COMMISSION CLERK

	<p>respectively. The affirmative determination of need should be based on a finding by the Commission that adding the proposed FGPP to FPL's portfolio is the best alternative available for FPL to continue to provide reliable electric service by maintaining a balanced, fuel-diverse generation portfolio beginning by 2013 and maintaining an adequate reserve margin to meet its customer's projected electricity demand by 2013 and through 2014.</p>
<p>Dr. Leonardo E. Green Manager of Load Forecasting within the Resource Assessment and Planning Business Unit Florida Power & Light Company (Direct)</p>	<p>Describes FPL's load forecasting process, identifies the underlying methodologies and assumptions, and presents the forecasts used in the Need Study submitted by FPL in this proceeding. Explains how these forecasts were developed and why they are reasonable.</p>
<p>C. Dennis Brandt Director of Product Management and Operations Florida Power & Light Company (Direct)</p>	<p>Provides a historical overview of FPL's industry-leading demand-side management (DSM) initiatives. Discusses the current maturity of DSM and its potential on FPL's system. Outlines the process used for setting DSM Goals. Provides an overview of FPL's current DSM and demand-side renewable efforts, including recent Commission-approved modifications to FPL's DSM programs that have the effect of substantially increasing demand and energy savings going forward. Advises that there are not sufficient available demand-side options that could eliminate the 2013 and 2014 capacity needs.</p>
<p>David N. Hicks Senior Director of Project Development Florida Power & Light Company (Direct)</p>	<p>Provides an overview of the technology and site selection processes. Describes the specific site and unit characteristics for the USCPC plant proposed for the FGPP site, including the size, number and type of units, the heat rate and operation characteristics.</p>
<p>Stephen D. Jenkins Vice President, Gasification Services CH2M Hill (Direct)</p>	<p>Shows that FPL's selection of USCPC technology for the proposed FGPP is more prudent than IGCC technology, based on an overall analysis and comparison of factors that include technology maturity, efficiency, reliability, power generating</p>

	capability, operational history and environmental performance.
Kennard F. Kosky Principal Golder Associates, Inc. (Direct)	Reaches and supports the following key conclusions: (i) the selection of ultra-supercritical pulverized coal (USCPC) technology and environmental controls for FGPP not only meets, but exceeds the extensive environmental regulatory requirements; (ii) the technology selected for FGPP is the best available alternative from an environmental perspective consistent with maintaining fuel diversity; and (iii) the environmental compliance costs evaluated by FPL to meet future environmental requirements reflect an appropriate range of possible future costs, which fairly and reasonably takes into account uncertainty concerning future environmental requirements and costs.
Steven R. Sim Supervisor, Resource Planning & Assessment Florida Power & Light Company (Direct)	Discusses FPL's integrated resource planning process and the company's focus on fuel diversity. Also discusses FPL's additional resource needs for 2007 – 2015 and why DSM cannot reasonably mitigate those needs. Addresses the results of the economic analyses of different coal technologies and supports FPL's selection of USCPC technology. Explains the selection of USCPC technology over a natural gas combined cycle alternative. Presents the economic and fuel diversity analyses of alternate resource plans and discusses FPL's fuel cost forecasts and environmental compliance cost forecasts.
William L. Yeager Vice President of Engineering and Construction Florida Power & Light Company (Direct)	Describes some of the key considerations in determining the technology proposed to be used at FGPP and explains why USCPC is the best option among the solid-fuel technologies considered. Discusses FPL's expected in-service dates for FGPP 1 and 2, and describes areas of uncertainty associated with a project of this size and scale. Explains the approach FPL has employed to mitigate the scheduling and cost risks associated with this project resulting in reasonable estimates for the

	cost of FGPP 1 and 2.
William H. Damon, III Chief Executive Officer Cummins & Barnard, Inc. (Direct)	Presents the conclusions of their independent engineering review of the FPL contracting strategy and estimated cost for the FGPP Project and renders opinions based on the results of the evaluation as to reasonableness and market competitiveness for this USCPC development.
Hector J. Sanchez Director of Transmission Services and Planning Florida Power & Light Company (Direct)	Discusses overall transmission evaluation process and the results of power flow studies used in determining the most cost-effective manner to interconnect and integrate into the transmission system the Fuel Diversity Expansion Plan with Coal that includes the two USCPC units of FGPP for the period of 2012 through 2016. Also discusses the performance of, technical aspects related to, and the evaluation of transmission related costs associated with the interconnection and integration of the Fuel Diversity Expansion Plan with Coal.
Jose Coto Transmission Engineering Manager in the Transmission Group Florida Power & Light Company (Direct)	Describes the physical characteristics of the transmission facilities required to interconnect and integrate into the transmission system the two coal units at FGPP and other non-coal units contained in the 2012-2016 generation plan associated with FPL's Fuel Diversity Expansion Plan with Coal. Discusses permitting requirements, engineering, construction, schedule and estimated costs associated with these transmission facilities.
Gerard Yupp Director of Wholesale Operations in the Energy Marketing and Trading Division Florida Power & Light Company (Direct)	Presents and explains the benefits of fuel diversity in FPL's system resulting from the addition of two 980 MW solid fuel units, including the benefits of on-site fuel inventory; the inherent uncertainty in oil and natural gas price forecasts which necessitates the use of scenario analysis in the long-term economic evaluation of FGPP; the methodology for the multiple oil and natural gas price forecasts used by Dr. Sim in FPL's economic evaluation of FGPP; the projected price differential between the delivered price of natural gas

	to the FPL system and delivered price of solid fuel (coal and petroleum coke) to FGPP; and the estimated costs of building and operating fuel inventory capability for a 1,960 MW gas fired generating plant that would be equivalent to the 60-day inventory capability of FGPP.
Seth Schwartz Principal Energy Ventures Analysis, Inc. (Direct)	Provides background information on the world and domestic coal and petroleum coke markets including supply. Affirms the reasonableness of the projected delivered costs and procurement strategy for coal and petroleum coke included in this application.

B. Rebuttal Testimony

C. Dennis Brandt Director of Product Management and Operations Florida Power & Light Company (Rebuttal)	Rebuts the testimony of John J. Plunkett regarding the ability of FPL to achieve additional DSM to defer the need for the proposed FGPP and FPL's current and future DSM programs.
David N. Hicks Senior Director of Project Development Florida Power & Light Company (Rebuttal)	Rebuts the testimony of Richard Furman regarding FPL's choice of USCPC technology over IGCC and addresses assertions made with respect to carbon capture technology and FPL's current participation in the development of IGCC technology.
Stephen D. Jenkins Vice President, Gasification Services CH2M Hill (Rebuttal)	Rebuts the testimony of Richard Furman concerning the performance, availability, and costs of IGCC and USCPC technology and the viability of CO2 capture and sequestration.
Kennard F. Kosky Principal Golder Associates, Inc. (Rebuttal)	Rebuts assertions made in the testimony of Richard Furman and David Schlissel regarding environmental impacts of IGCC technology and USCPC technology and the reasonableness of FPL's projected carbon dioxide compliance costs.
Steven R. Sim Supervisor, Resource Planning & Assessment Florida Power & Light Company	Rebuts the testimony of Richard Furman regarding the cost-effectiveness and availability of IGCC technology, rebuts the testimony of David Schlissel regarding

(Rebuttal)	resource planning and potential reductions in reserve capacity, and rebuts the testimony of John J. Plunkett regarding costs associated with DSM and the extent to which FPL may achieve additional DSM in the future.
William L. Yeager Vice President of Engineering and Construction Florida Power & Light Company (Rebuttal)	Rebuts the testimony of David Schlissel concerning FPL's analysis of the risk of increases in the capital cost of FGPP and explains FPL's mitigation of such risks.
Seth Schwartz Principal Energy Ventures Analysis, Inc. (Rebuttal)	Rebuts the testimony of Richard Furman concerning fuel costs associated with petroleum coke and coal and the status of IGCC plants generally in the U.S.
Judah Rose Managing Director of ICF International (Rebuttal)	Rebuts the testimony of David Schlissel regarding the potential costs of CO2 regulation, demonstrates the reasonableness of FPL's allowance price forecasts for CO2, and demonstrates the connection between CO2 regulation and gas prices.
Rene Silva Director of Resource Assessment and Planning Florida Power & Light Company (Rebuttal)	Rebuts the testimony of David Schlissel concerning FPL's choice of FGPP over other alternatives to meet resource needs, the potential costs of CO2 regulation and its effect on FPL's portfolio, and reserve margin adequacy and resource planning. Rebuts the testimony of John J. Plunkett concerning the effects of delaying FGPP.

II. EXHIBITS

Exhibit	Description	Sponsoring Witness
AJO-1	Biographical Information	Armando J. Olivera
RS-1	Actual Energy Mix 2005	Rene Silva
RS-2	Projected Energy Mix 2016	Rene Silva
RS-3	Economic Evaluation Results	Rene Silva
RS-4	Economic Evaluation Results – Adjusted to Reflect LNG Inventory Cost	Rene Silva
RS-5	Comparison of System Revenue Requirements	Rene Silva
LEG-1	Total Average Customers	Leonardo E. Green
LEG-2	Summer Peak Load	Leonardo E. Green
LEG-3	Summer Peak Load Per Customer	Leonardo E. Green
LEG-4	Winter Peak Load	Leonardo E. Green
LEG-5	Winter Peak Load Per Customer	Leonardo E. Green
LEG-6	Summer Peak Weather	Leonardo E. Green
LEG-7	Comparison of West Co. Units 1 and 2 and 2006 Coal Need Determination Forecast	Leonardo E. Green
LEG-8	Florida Real Personal Income	Leonardo E. Green
LEG-9	Net Energy for Load Use Per Customer	Leonardo E. Green
LEG-10	Net Energy for Load	Leonardo E. Green
LEG-11	Non-Agricultural Employment	Leonardo E. Green
LEG-12	Comparison of West Co. Units 1 and 2 and 2006 Coal Need Determination Forecast: Real Price of Electricity	Leonardo E. Green
LEG-13	Impact of the 2005 Energy Policy Act	Leonardo E. Green

	Adjustment	
LEG-14	FPL Load Factor Based on Summer Peak	Leonardo E. Green
DB-1	FPL Current FPSC DSM Goals	C. Dennis Brandt
DB-2	FPL DSM Programs & Measures	C. Dennis Brandt
DNH-1	FPL's Report on Clean Coal Generation	David N. Hicks
DNH-2	Clean Coal Technology Selection Study	David N. Hicks
DNH-3	FGPP Development Milestones	David N. Hicks
DNH-4	Vicinity Map of Proposed Glades Power Park	David N. Hicks
DNH-5	Glades Power Park Project Boundary Aerial	David N. Hicks
DNH-6	Glades Power Park Process Diagram Overview	David N. Hicks
DNH-7	Glades Power Park Process Diagram Coal Handling System	David N. Hicks
DNH-8	Glades Power Park Process Diagram Limestone Handling System	David N. Hicks
DNH-9	Glades Power Park Process Diagram By-product Handling System	David N. Hicks
DNH-10	Glades Power Park Site Plan Overall	David N. Hicks
DNH-11	Glades Power Park Site Plan Power Island	David N. Hicks
DNH-12	Glades Power Park Site Plan Typical Elevations	David N. Hicks
DNH-13	FGPP 1 and 2 Fact Sheet	David N. Hicks
DNH-14	Glades Power Park Overall Water Balance	David N. Hicks
KFK-1	Kennard F. Kosky Curriculum Vitae	Kennard F. Kosky
KFK-2	Comparison of FGPP Emissions with	Kennard F. Kosky

	IGCC, Natural Gas Combined Cycle, Recent DOE “Clean Coal” and Recent PC Coal Projects	
KFK-3	Maximum Air Quality Impact Predicted for the FGPP Compared to Ambient Air Quality Standards and PSD Class II Increments	Kennard F. Kosky
KFK-4	Comparison of FGPP Emissions with OUC Unit B IGCC	Kennard F. Kosky
KFK-5	Comparison of FGPP Emissions with AEP Mountaineer IGCC	Kennard F. Kosky
KFK-6	Proposed Mercury Emission Factor for FGPP	Kennard F. Kosky
KFK-7	FGPP Environmental Compliance Costs	Kennard F. Kosky
SRS-1	Projection of FPL’s Capacity Needs	Steven R. Sim
SRS-2	Additional FPL DSM Above DSM Goals: 2006-2015	Steven R. Sim
SRS-3	Economic Analyses of Coal Technologies	Steven R. Sim
SRS-4	Projection of FPL’s 2007 – 2015 Capacity Needs With FGPP 1 and 2	Steven R. Sim
SRS-5	The Two Resource Plans Utilized in the Analyses	Steven R. Sim
SRS-6	Fuel Cost Forecasts Utilized in the Analyses	Steven R. Sim
SRS-7	Environmental Compliance Cost Forecasts Utilized in the Analyses	Steven R. Sim
SRS-8	Economic Analysis Results for One Fuel and Environmental Compliance Cost Scenario: Generation System Costs Only	Steven R. Sim
SRS-9	Economic Analysis Results for One Fuel and Environmental Compliance Cost Scenario: Generation System and	Steven R. Sim

	Transmission System Costs	
SRS-10	Calculation of Peak Hour Loss Cost for the Plan with Coal Compared to the Plan without Coal	Steven R. Sim
SRS-11	Calculation of Annual Energy Loss Cost for the Plan with Coal Compared to the Plan without Coal	Steven R. Sim
SRS-12	Economic Analysis Results: Total Costs and Total Cost Differentials for All Fuel and Environmental Compliance Cost Scenarios	Steven R. Sim
SRS-13	Economic Analysis Results: the Plan with Coal vs. the Plan without Coal Total Cost Differentials for All Fuel and Environmental Compliance Cost Scenarios	Steven R. Sim
SRS-14	Non-Fuel Cost Projections for the First 12 Months of Operation for FGPP 1 and 2	Steven R. Sim
SRS-15	Fuel Diversity Analysis Results: FPL System Fuel Mix Projections by Plan	Steven R. Sim
WLY-1	FPL Glades Power Park Units 1 and 2 Plant Construction Cost Components	William L. Yeager
WLY-2	FPL Glades Power Park Units 1 and 2 EPC Indexing	William L. Yeager
HJS-1	Summary of Required Facilities and Performance for the Fuel Diversity Expansion Plan with Coal	Hector J. Sanchez
HJS-2	Summary of Required Facilities and Performance for the Expansion Plan without Coal	Hector J. Sanchez
HJS-3	Peak Load Comparison of Transmission Losses for the Fuel Diversity Expansion Plan with Coal versus the Expansion Plan without Coal	Hector J. Sanchez
HJS-4	Average Load Comparison of Transmission Losses for the Fuel Diversity	Hector J. Sanchez

	Expansion Plan with Coal versus the Expansion Plan without Coal	
JC-1	Cross Sectional View 350 Feet Right-of-Way	Jose Coto
JC-2	Cross Sectional View of 494 Feet Right-of-Way	Jose Coto
JC-3	Cross Sectional View of 330 Feet Right-of-Way	Jose Coto
JC-4	Cross Sectional View of 660 Feet Right-of-Way	Jose Coto
JC-5	One Line Diagram for FGPP	Jose Coto
JC-7	Summary of Required Transmission Facilities, Cost and Schedule for the Fuel Diversity Expansion Plan with Coal	Jose Coto
SS-1	Resume of Seth Schwartz	Seth Schwartz
SS-2	Power Generation in Florida	Seth Schwartz
SS-3	Changes in Fuel Prices Since 1992	Seth Schwartz
SS-4	U.S. Coal Industry Production	Seth Schwartz
SS-5	Map of U.S. Coal Supply Regions	Seth Schwartz
SS-6	U.S. Coal Demand by Sector	Seth Schwartz
SS-7	U.S. Coal Imports	Seth Schwartz
SS-8	U.S. Coal Pricing	Seth Schwartz
SS-9	Central Appalachia Coal Production	Seth Schwartz
SS-10	Central Appalachia Coal Demand	Seth Schwartz
SS-11	Outlook for Central Appalachia Coal	Seth Schwartz
SS-12	Central Appalachia Coal Reserves	Seth Schwartz
SS-13	Central Appalachia Coal Production by Company	Seth Schwartz
SS-14	Routings from Central Appalachia to FGPP	Seth Schwartz

SS-15	Global Thermal Coal Trade	Seth Schwartz
SS-16	Global Metallurgical Coal Trade	Seth Schwartz
SS-17	Coking Capacity Additions	Seth Schwartz
SS-18	Petroleum Coke Pricing	Seth Schwartz
SS-19	FPL Fuel Price Forecast	Seth Schwartz
SS-20	Comparisons of FGPP Delivered Price Forecasts	Seth Schwartz
	Rebuttal Exhibits	
DB-3	Dollar per kW Comparison for FPL and PG&E	C. Dennis Brandt
DB-4	Prior Exhibits of John J. Plunkett	C. Dennis Brandt
KFK-8	Mercury Sources and Deposition	Kennard F. Kosky
KFK-9	Maximum Air Quality Impact Predicted for the FPL Glades Power Park Compared to IGCC	Kennard F. Kosky
SRS-16	Richard C. Furman Exhibit from Taylor Energy Center Docket	Steven R. Sim
SS-21	Average Delivered Cost of Petroleum Coke 2005 and 2004	Seth Schwartz
SS-22	Receipts and Average Delivered Cost of Petroleum Coke by Type of Purchase, 2004	Seth Schwartz
SS-23	Receipts and Average Delivered Cost of Petroleum Coke by Type of Purchase, 2005	Seth Schwartz
SS-24	The Average Delivered Cost of Coal by State in 2004 and 2005	Seth Schwartz
SS-25	Receipts and Average Delivered Cost of Coal by Type of Purchase, 2004	Seth Schwartz
SS-26	Receipts and Average Delivered Cost of Coal by Type of Purchase, 2005	Seth Schwartz

SS-27	Comparison of Reported Florida Utility Fuel Costs with Furman Evidence	Seth Schwartz
SS-28	Petroleum Coke Purchases by Florida Utilities	Seth Schwartz
SS-29	Polk Fuel Consumption and Reported Cost	Seth Schwartz
SS-30	U.S. Petroleum Coke Supply and Shipments	Seth Schwartz
SS-31	Eastern FGD Projects	Seth Schwartz
SS-32	New Petroleum Coke-Fired Capacity	Seth Schwartz
JLR-1	Resume of Judah L. Rose	Judah Rose

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 has requested a determination of need for FPL Glades Power Park Units 1 and 2 electrical power plant (“FGPP”)¹, which consists of two solid fuel coal-fired generating units each having summer net capacities of approximately 980 megawatts (“MW”) for a combined net capacity of 1,960 MW, to be constructed on a 4,900-acre site property located in unincorporated Glades County. FPL selected a state-of-the-art advanced coal technology, ultra-supercritical pulverized coal (sometimes hereinafter referred to as “advanced technology coal”), to meet its capacity and fuel diversity needs,

¹ Unless the context clearly indicates otherwise, references to FGPP in FPL’s Prehearing Statement shall be meant to refer to the Project as defined in FPL’s Petition for Determination of Need for FPL Glades Power Park Units 1 and 2 Electrical Power Plant.

based on its evaluation of various coal-based generating alternatives. FGPP will be one of the cleanest, most efficient coal plants in the world, providing for the environmentally responsible use of coal and petroleum coke (collectively “solid fuel”) to produce electricity to serve the needs of FPL’s customers, keeping pace with the substantial infrastructural and energy demands of a rapidly growing population and economy, and maintaining much-needed fuel diversity for the benefit of customers, beginning in about 2013.

FGPP is needed to maintain electric system reliability and integrity and to provide adequate power at a reasonable cost. Constructing and operating FGPP will help maintain fuel diversity on FPL’s system, help dampen volatility in fuel costs charged to customers, increase electric system reliability and integrity throughout Peninsular Florida, have a positive effect on the Southeast Florida load and generation imbalance, provide adequate power at reasonable cost, and is the most cost-effective alternative that maintains solid fuel generation as an important element of FPL’s generating portfolio. Much of FPL’s existing generation depends on natural gas -- a fuel that faces increasing challenges with regard to price, availability and deliverability due to the growing energy demands of an ever-expanding economy, coupled with limited known domestic reserves. In contrast to using natural gas as a fuel, the solid fuel that FGPP is designed to use is plentiful, reliably available at a low cost from U.S. domestic sources, and can be readily stored in large amounts on-site, further enhancing reliability. In addition, the use of coal, a resource that the United States has in great abundance, is consistent with the nation’s goal and efforts to move towards greater energy independence.

Without FGPP, or an alternative arrangement to maintain its reliability criterion of a 20% reserve margin for those years, FPL's summer reserve margins would decrease to 14.8% in 2013 and 13.0% in 2014. These levels of reserve margin are inadequate to provide service reliability not only during peak months, but also during off-peak months when significant generation capacity must be taken out of service in order to perform planned maintenance. In addition, carrying these lower levels of reserve margin would mean that FPL's total reserves would consist primarily of demand side management (DSM). Specifically, approximately 76% of the reserves in 2013 would be supplied by DSM MW, and approximately 88% of the reserves in 2014 would be supplied by DSM MW. This means that load control would be exercised frequently. Without the FGPP units and without exercising the DSM MW, FPL's reserve margins would be only 3.5% in 2013 and 1.5% in 2014. FGPP is therefore needed to maintain the electric system reliability and integrity of FPL and Peninsular Florida.

FPL is an industry leader in DSM and cost-effective conservation programs. Indeed, the U.S. Department of Energy ranks FPL number one nationally for cumulative conservation achievement and number four in load management based on the most current data available. Between 2006 and 2015, FPL will add 637 MW of load management and 729 MW of conservation for a total of 1,366 MW of incremental demand side management. This will avoid the need for another 1,639 MW of new generation capacity in those years. In addition, the United States Energy Policy Act of 2005 mandates specific energy efficiency standards and is expected to result in the avoidance of as much as 1,256 MW of capacity needs for FPL by 2014. Yet these savings already are reflected in FPL's resource planning process and there is not

sufficient additional cost-effective DSM to eliminate or defer the need for FGPP to meet Florida's growing need for electrical power.

One witness suggests that FPL can defer the need for FGPP by at least five years if it increases the amount it spends on DSM. This witness does a high-level benchmarking analysis comparing FPL to utilities in Massachusetts and Pacific Gas and Electric (PG&E) in terms of DSM spending per kWh. Of the Northeastern states this witness identifies, Massachusetts, is the least effective in terms of annual kilowatt hour ("kWh") savings per dollar spent. Moreover, it is the peak hour kilowatt ("kW") reduction value of DSM options that enables utilities to defer the need for new generation additions. The amount FPL spends per kW of achieved savings is as much as one-third less than the amount PG&E spends per kW of achieved savings. There is no credible evidence that shows FPL can cost-effectively triple its DSM potential over the undefined time period this witness refers to as the "long term."

FPL is also a strong supporter of cost-effective renewable resources. In 2005, FPL purchased about 1.5 million megawatt hours ("MWH") of electricity from nine suppliers that own and operate renewable generation resources. FPL continues to encourage existing and potential renewable generators by facilitating dialogue with these entities and offering for negotiation contract terms that favor development of renewable resources. However, there are not sufficient renewable resources to avoid or defer the need for the baseload capacity and energy that the FGPP units will provide.

Both wind and solar energy systems are intermittent in nature and can be used to provide energy, but not needed capacity. FPL has done a preliminary examination to determine what would be required to replace the energy (only) from FGPP with wind

turbines. FPL's studies indicate the best technical potential for wind generation in Florida is on the coast, with a clear site line to the ocean. Because even at these locations the winds are light, the capacity factor for the turbines is estimated at 8 to 12 percent. Generously assuming a 15 percent capacity factor and assuming GE 1.5 MW wind turbines are used, it would require over 8,000 wind turbines (or about 69 percent of the total installed wind generation capacity in the U.S. as of the end of 2006) to produce the same amount of energy that FGPP would generate. The wind turbines would have to be located on the coast, and, even if the turbines were spaced along the entire coast of Florida (from Alabama in the West, around the Keys and back up the east coast to Georgia) there still would not be enough coast line to accommodate the needed number of turbines.

Using solar energy as another example of renewable potential, based on insolation (sunshine) data from the Florida Solar Energy Center (FSEC) and National Renewable Energy Laboratory (NREL), approximately 5.5 watt-hours per day of energy will be produced for each watt of photovoltaic (PV) cells installed. Therefore, to replace the energy output of FGPP would require 7,868 MW of photovoltaics, almost 100 times more than the total installations of PV cells throughout the U.S. in 2005. Using typical commercial solar cells, these panels would cover over 20 square miles, and like wind could not be relied upon to provide firm capacity to meet customers' needs.

Renewable sources that, unlike wind and solar, can provide both energy and capacity include biomass, waste-to-energy and landfill gas facilities. However, there is limited achievable potential for incremental capacity from these sources in Florida, and certainly not enough to avoid or defer the need for FGPP.

Beyond simply meeting the expanding electrical requirements in the state of Florida, perhaps more important, FGPP will add significant value as a new fuel diverse generating resource on FPL's system, helping to mitigate the effects of delivery disruptions or price spikes of any one fuel, whether due to geo-political disturbances, acts of terrorism, natural disaster or simply long-term market forces of supply and demand, and thus enhancing the reliability of the electric system while reducing the cost volatility of electric power. This is true regardless of any stated or assumed reserve margin requirement. Specifically, FGPP will permit FPL to: (i) use a lower cost solid fuel that is abundantly available in the United States, and is much less susceptible to the potential supply disruptions and price spikes of other fossil fuels; (ii) reduce the fuel cost-related volatility of the price of electricity for customers; (iii) increase the supply of reliable electricity; (iv) diversify its generating technologies, fuel delivery methods and fuel types used to serve FPL's customers; and (v) decrease reliance on natural gas as a relative percentage of FPL's fuel mix.

Fuel diversity is an important public policy objective, as evidenced by Florida's Energy Plan, issued on January 17, 2006, which addressed the importance of fuel diversity and the need to avoid excessive reliance on any one fuel type such as natural gas. The Legislature also has reinforced the need for fuel diverse generating resources, with the recent amendment of Section 403.519, Florida Statutes, which now requires this Commission to explicitly consider "the need for fuel diversity and supply reliability" when making its determination of need for new electric generating capacity.

Consistent with this objective, the Commission on August 29, 2006 moved to facilitate FPL's fuel diversity efforts when it granted the Company an exemption from

Rule 25-22.082, Florida Administrative Code (the “Bid Rule”) with respect to FPL’s proposal to construct an ultra-supercritical pulverized coal generating plant, finding:

... the exemption will serve the public welfare and will likely result in reliability and cost benefits to the utility’s general body of ratepayers. FPL should move forward with construction of the generating units as expeditiously as possible and has stated that a need determination filing could be made, for both units, no later than May 1, 2007.

Order No. PSC-06-0779-PAA-EI, issued September 19, 2006, pp. 5-6.

FGPP’s role in maintaining fuel diversity and reducing Florida’s dependence on fuel oil and natural gas is clear. With FGPP, the solid fuel percentage will be 18% in 2005 and 18% in 2016, thus helping maintain the solid fuel contribution percentage in FPL’s fuel mix with the associated benefits for customers. In contrast, without FGPP, the solid fuel percentage in 2016 will have dropped to 7%. Moreover, during the first twenty full years of operation of both FGPP units, FPL will reduce the use of natural gas by about 2 billion MMBtu compared to the amount of natural gas it would use without FGPP. This decrease in natural gas use, which is a measure of the reduction in FPL’s reliance on natural gas achieved by FGPP, is equivalent to the total quantity of natural gas FPL used during the last 6 years. On the other hand, if combined cycle natural gas plants were to be constructed instead of FGPP, the natural gas element of FPL’s portfolio would increase from 42% in 2005 to 71% in 2016, resulting in commensurate increases in the amount of natural gas burned on FPL’s system.

FGPP employs the world’s best, state-of-the-art technology to provide cost-effective, reliable power, while meeting and in many cases exceeding all environmental requirements and will be among the most efficient coal-fired electric generating facilities in the United States. FPL selected advanced technology coal to meet its capacity and fuel

diversity needs, based on its evaluation of various coal-based generating alternatives. These alternatives included sub-critical pulverized coal (“PC”) units, circulating fluidized bed (“CFB”) units, integrated gasification combined cycle (“IGCC”) units, and advanced technology coal units. FPL’s evaluations included both qualitative and quantitative analyses of these four options. FPL concluded that the best way to meet its capacity and fuel diversity needs consists of adding two 980 MW advanced technology coal units, one in 2013 and one in 2014.

Although other federal and state agencies will fully review the environmental compliance of FGPP, FPL has included information with respect to environmental compliance in order to provide assurance to the Commission that these requirements will be fully satisfied through FPL’s construction of FGPP, and to inform the Commission concerning the expected costs of such compliance. Specifically, FPL will install and operate the environmental controls necessary to meet or exceed all applicable environmental laws and regulations. These technologies will incorporate proven state-of-the-art systems and processes to minimize emissions. FGPP’s engineering design will also permit the addition of carbon-capture technology when such technology becomes commercially available. Significantly, even with the addition of FGPP, FPL will continue to be among the very cleanest generating utilities in the nation and will continue to have the lowest CO₂ emissions rate of any major utility in the state of Florida. Consistent with FPL’s longstanding commitment to good environmental stewardship, the technology selected by FPL for FGPP together with FPL’s environmental compliance plan constitute the best available environmental choice to maintain fuel source diversity for electric supply to FPL’s customers.

In this proceeding, one witness asserts that FPL should be proposing IGCC technology, using 100% petroleum coke as a fuel, rather than FPL's advanced technology coal unit. However, economic analyses conducted by FPL alone as well as by FPL together with Black & Veatch show FPL's advanced coal technology to be clearly more cost-effective than IGCC. Indeed, IGCC technology ranks last behind USCPC technology, CFB technology and PC technology in comparative economics.

FPL's proposed advanced coal technology is expected to provide 92% average annual availability, based upon engineering analyses including consideration of performance from similar large advanced technology coal units already in service around the world. FPL should not be encouraged to reject proven reliable technology for investment in an IGCC plant of a size and configuration that has never been constructed anywhere in the world and which, even if built, would have much lower efficiency and reliability than FPL's proposed advanced coal technology plant.

Further, there is no environmental benefit of IGCC technology in comparison with advanced technology coal. The extensive suite of emission controls proposed by FPL has been demonstrated to effectively remove emissions in applications involving more than 100,000 MW of coal-fired generation around the world. In fact, the air quality control system proposed by FPL, the costs of which are included in its estimated project costs, are expected to result in such small amounts of mercury to be emitted -- far below applicable legal limits -- as to be not measurable. NO_x, SO₂ and particulate matter emissions are all similarly expected to be controlled at levels at or below legally permissible levels, and in a manner better in some respects and the same in others as IGCC technology.

Regarding CO2 emissions, the actual amount of CO2 that would be emitted by an advanced technology coal plant is actually less than would be emitted by an IGCC plant, because of the greater efficiency of FGPP, which uses less fuel to make the same amount of electricity. No IGCC plant in the world has had carbon capture or carbon sequestration technology applied to it and if such technology was to be installed it would only be at a very high price and with a substantial reduction in plant power output. The best and most recent industry information concerning prospective economics and technology for carbon capture and sequestration finds that neither technology is expected to have a decisive cost advantage for carbon capture and sequestration, and that accordingly utilities should select the most efficient coal plant that they can, without prejudging the possible range of future carbon capture and sequestration costs. This is what FPL has done in selecting advanced coal technology.

FGPP will permit efficient and environmentally compliant use of lower price solid fuel and will prove to be a cost effective alternative on a long term basis under many anticipated fuel-price and environmental compliance cost outcomes. Indeed, when one takes into account the costs associated with developing a level of natural gas inventory comparable to the coal inventory at FGPP, FPL's economic analysis shows that FGPP will result in overall savings to customers in the majority of the fuel price and environmental compliance cost scenarios analyzed. Moreover, several of the scenarios in which FGPP would not, on balance, result in overall savings to customers are comparatively less likely to occur – for example, scenarios where environmental compliance costs for FGPP are very high while natural gas prices remain very low. It is

simply not reasonable to assume that high CO2 compliance costs would not have a substantial and adverse impact on the demand for and price of natural gas.

The expected installed cost for FGPP is \$3,456 million (2013 dollars) for FGPP 1 and \$2,244 million (2014 dollars) for FGPP 2, resulting in a total estimated cost of \$5,700 million. For FGPP 1, this cost includes \$2,521 million for the power plant, including land acquisition for the power plant, \$274 million for the transmission interconnection and integration, including land acquisition for the off-site transmission system, and \$661 million in allowance for funds used during construction (“AFUDC”) to an in-service date of June, 2013. For FGPP 2, this cost includes \$1,668 million for the power plant, \$195 million for the transmission interconnection and integration, and \$381 million in AFUDC to an in-service date of June, 2014.

While the capital costs of FGPP are higher relative to comparably sized gas-fired generating units, they are offset to a large extent by fuel cost savings. For example, the estimated net effect on a residential 1,000 kWh monthly bill for both FGPP units is \$3.96 under a relatively conservative scenario using projections from the lower half of the range of fuel forecasts analyzed by FPL. The estimated increase in the 1,000 kWh residential bill for the first year revenue requirements for both FGPP units is \$9.41, and the corresponding projected fuel savings for both units as described above, compared to not adding FGPP or any new generation, is \$5.45 for a net effect of \$3.96. These savings are in addition to the reliability benefits associated with a diverse fuel source -- benefits that, depending on the scenario that impacts the flow or availability of natural gas, may be enormous, but which are not capable of being fully quantified on a projected basis.

Nevertheless, focusing solely on FPL's economic analysis, it is clear that adding FGPP to FPL's electric generating portfolio provides a substantial hedge or insurance for customers against high fuel costs, especially high natural gas costs, at a reasonable cost. In future periods when natural gas prices are high, all other things being equal, the lower cost of the solid fuel used by FGPP will clearly benefit customers. If natural gas prices in the future are low, the comparative cost benefit of FGPP diminishes but customers benefit from the low cost of gas used in natural gas-fired generating units. By the same token, factors such as lower or higher carbon dioxide environmental compliance costs, which may be established by future laws and regulations, will affect the economic advantage or disadvantage of FGPP compared with other generation sources, but by how much is entirely unclear. Such uncertainties arise for reasons outside of FPL's and the Commission's control. But, it is precisely because of such uncertainties that FGPP should be constructed.

Given the significant variables at issue with regard to FGPP, there is no one cost outcome that can be projected with any reasonable degree of certainty. Indeed, FPL is not recommending approval of FGPP based on any specific projected outcome. Rather, FPL's projected range of cost outcomes for FGPP indicate a reasonable range of potential outcomes based on fuel and environmental compliance costs over an extended period of time. It is this range of potential outcomes that illustrates and underscores one of the principal reasons to maintain fuel diversity.

Any delay in adding FGPP to mitigate the effect of uncertainty – uncertainty that cannot be avoided - would certainly result in deterioration of FPL's system reliability. The fact is that neither FGPP, nor a gas-fired facility that would inevitably have to be

added to maintain system reliability if FGPP is delayed or rejected, can be shown to have been the best choice under all reasonable possible future conditions. The continuing debate on the form, extent, and ultimate cost of CO2 regulation, including its impact on the demand for and cost of natural gas, should not impede efforts to create a more fuel-diverse portfolio of generating assets. The best course, faced with the almost certain prospect of higher energy prices, but not knowing how the relative costs of various fuel and generation types will actually play out either in the near or the long term, is to pursue more diversity in FPL's generating portfolio by adding FGPP at this time.

Thus, FPL is requesting approval of FGPP to meet projected load on the basis of an interest in and need for fuel diversity, consistent with Section 403.519, Florida Statutes. Specifically, FGPP will help FPL manage and mitigate such risks on behalf of customers as part of a well-balanced and diversified FPL resource portfolio. For these reasons, in considering the factors set forth under the Florida Power Plant Siting Act (“PPSA”), the Commission should place particular emphasis and weight on the need for fuel diversity, an important addition to the statutory standard of review added to the PPSA in the most recent legislative session.

FPL submits that FGPP satisfies all of the requirements contained in Section 403.519 and applicable Commission rules. FPL has appropriately considered all available alternatives to meet the resource needs of FPL’s customers and maintain fuel diversity in the future. FPL has performed an effective, complete evaluation that addressed all issues relevant in the determination of the best resources to add to FPL’s portfolio in 2013 and 2014. FGPP will be the most cost effective way to maintain solid fuel coal-fired generation as a major element of the generating portfolio serving FPL’s

customers beginning in the 2013-2014 time period in which customers need large amounts of additional capacity, maintaining the balance of fuel diversity, reducing Florida's dependence on fuel oil and natural gas, and contributing to the long-term stability and reliability of the electric grid. Delaying the decision to add FGPP would not be in the best interests of FPL's customers because such a delay would likely be, in effect, a decision to reject FGPP and consequently not maintain fuel diversity, making FPL's customers even more vulnerable to the very uncertainties that a delay would purport to mitigate. FPL's petition for a determination of need for FGPP Units 1 and 2 should be granted.²

IV. ISSUES AND POSITIONS

Issue 1: Is there a need for the proposed generating units, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, Florida Statutes?

FPL: Yes. FPL's load forecast demonstrates the need for additional capacity beginning in about 2013. FGPP is needed to maintain electric system reliability and integrity and to provide adequate power at a reasonable cost. Constructing and operating the FGPP units will help improve and maintain fuel diversity on FPL's system, help dampen volatility in fuel costs charged to customers, increase electric system reliability and integrity throughout Peninsular Florida, have a positive effect on the Southeast

²Also, in light of the magnitude of the financial commitment that FPL and its customers will need to make to construct FGPP, and the significant public policy issues associated with the choice of fuel for this generating unit, prior to undertaking this project and in connection with this request for a determination of need for FGPP, FPL requested in its petition that the Commission establish an annual review process through which the prudence of actual costs incurred and the continued feasibility of the plant would be determined. FPL further requested that the Commission affirm certain principles relative to cost recovery: for example, that (i) costs that are imposed pursuant to current or future environmental legislation or regulatory requirements will be deemed prudent and will be recovered on an incremental basis through the Environmental Cost Recovery Clause, or similar means; and (ii) prudently incurred costs of the project would be recovered, including in the event the project is not completed. These issues are to be addressed in a separate proceeding and therefore are not addressed in FPL's Statement of Position.

Florida load and generation imbalance, provide adequate power at reasonable cost, and is the most cost-effective alternative that maintains solid fuel generation as an important element of FPL's generating portfolio.

Without FGPP, or an alternative arrangement to maintain its reliability criterion of a 20% reserve margin, FPL's summer reserve margins would decrease to 14.8% in 2013 and 13.0% in 2014. These levels of reserve margin are inadequate to provide service reliability not only during peak months, but also during off-peak months when significant generation capacity must be taken out of service in order to perform planned maintenance. In addition, carrying these lower levels of reserve margin would mean that FPL's total reserves would consist primarily of demand side management. Specifically, approximately 76% of the reserves in 2013 would be supplied by DSM MW, and approximately 88% of the reserves in 2014 would be supplied by DSM MW. This means that load control would be exercised frequently. Without the FGPP units and without exercising the DSM MW, FPL's reserve margins would be only 3.5% in 2013 and 1.5% in 2014. FGPP is therefore needed to maintain the electric system reliability and integrity of FPL and Peninsular Florida. (Olivera, Silva, Green, Sim, Sanchez, Coto, Yupp, Schwartz, Brandt, Yeager)

Issue 2: Is there a need for the proposed generating units, 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. FGPP is the most cost-effective alternative to provide electricity at a reasonable cost that will maintain system reliability and contribute to fuel diversity. FGPP employs the world's best, state-of-the-art advanced coal technology to provide cost-effective, reliable power, while meeting and in many cases exceeding all environmental requirements and will be among the most efficient coal-fired electric generating facilities in the United States. After a careful and thorough analysis of available technology options and fuel supply considerations, and after conducting a comprehensive siting study, FPL concluded that the addition of a ultra-supercritical pulverized coal plant, augmented with a complete suite of state-of-the-art emissions control equipment, and plant design that will allow for the recycling of combustion and pollution control by products into useful commercial products, will provide FPL's customers reliable, cost-effective fuel diversity employing proven, state-of-the-art generation and pollution control technology. The alternatives evaluated included sub-critical pulverized coal units, circulating fluidized bed units, integrated gasification combined cycle ("IGCC") units, and advanced technology coal units. FPL's evaluations included both qualitative and quantitative analyses of these four options. FPL concluded that the best way to meet its capacity and fuel diversity needs consists of adding two 980 MW advanced technology coal units, one in 2013 and one in 2014.

Although other federal and state agencies will fully review the environmental compliance of FGPP, FPL has included information with respect to environmental compliance in order to provide assurance to the Commission that these requirements will be fully satisfied through FPL's construction of FGPP, and to inform the Commission

concerning the expected costs of such compliance. Specifically, FPL will install and operate the environmental controls necessary to meet or exceed all applicable environmental laws and regulations. These technologies will incorporate proven state-of-the-art systems and processes to minimize emissions. FGPP's engineering design will also permit the addition of carbon-capture technology when such technology becomes commercially available. Significantly, even with the addition of FGPP, FPL will continue to be among the very cleanest generating utilities in the nation and will continue to have the lowest CO2 emissions rate of any major utility in the state of Florida. Consistent with FPL's longstanding commitment to good environmental stewardship, the technology selected by FPL for FGPP together with FPL's environmental compliance plan constitute the best available environmental choice to maintain fuel source diversity for electric supply to FPL's customers.

FGPP will permit efficient and environmentally compliant use of lower price solid fuel and will prove to be a cost-effective alternative on a long-term basis under many anticipated fuel-price and environmental compliance cost outcomes. Indeed, when one takes into account the costs associated with developing a level of natural gas inventory comparable to the coal inventory at FGPP, FPL's economic analysis shows that FGPP will result in overall savings to customers in the majority of the fuel price and environmental compliance cost scenarios analyzed. Moreover, several of the scenarios in which FGPP would not, on balance, result in overall savings to customers are comparatively less likely to occur – for example, scenarios where environmental compliance costs for FGPP are very high while natural gas prices remain very low. It is simply not reasonable to assume that high CO2 compliance costs would not have a substantial and adverse impact on the demand for and price of natural gas. (Silva, Hicks, Damon, Jenkins, Kosky, Olivera, Rose, Schwartz, Sim, Yeager, Yupp, Brandt)

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

FPL: Yes. Beyond simply meeting the expanding electrical requirements in the state of Florida, perhaps more important, FGPP will add significant value as a new fuel diverse generating resource on FPL's system, helping to mitigate the effects of delivery disruptions or price spikes of any one fuel, whether due to geo-political disturbances, acts of terrorism, natural disaster or simply long-term market forces of supply and demand, enhancing the reliability of the electric system, and reducing the cost volatility of electric power. This is true regardless of a stated or assumed reserve margin requirement. Specifically, FGPP will permit FPL to: (i) use a lower cost solid fuel that is abundantly available in the United States, and is much less susceptible to the potential supply disruptions and price spikes of other fossil fuels; (ii) reduce the fuel cost-related volatility of the price of electricity for customers; (iii) increase the supply of reliable electricity; (iv) diversify its generating technologies, fuel delivery methods and fuel types used to serve FPL's customers; and (v) decrease reliance on natural gas as a relative percentage of FPL's fuel mix.

While FPL is a strong supporter of cost-effective renewable resources, there are not sufficient renewable resources to avoid or defer the need for the baseload capacity and energy that the FGPP units will provide. Both wind and solar energy systems are intermittent in nature and can be used to provide energy, but not needed capacity. Renewable sources that, unlike wind and solar, can provide both energy and capacity include biomass, waste-to-energy and landfill gas facilities. However, there is limited achievable potential for incremental capacity from these sources in Florida, and certainly not enough to avoid or defer the need for FGPP.

FGPP's role in maintaining fuel diversity and reducing Florida's dependence on fuel oil and natural gas is clear. With FGPP, the solid fuel percentage will be 18% in 2005 and 18% in 2016, thus helping maintain the solid fuel contribution percentage in FPL's fuel mix with the associated benefits for customers. In contrast, without FGPP, the solid fuel percentage in 2016 will have dropped to 7%. Moreover, during the first twenty full years of operation of both FGPP units, FPL will reduce the use of natural gas by about 2 billion MMBtu compared to the amount of natural gas it would use without FGPP. This decrease in natural gas use, which is a measure of the reduction in FPL's reliance on natural gas achieved by FGPP, is equivalent to the total quantity of natural gas FPL used during the last 6 years. On the other hand, if combined cycle natural gas plants were to be constructed instead of FGPP, the natural gas element of FPL's portfolio would increase from 42% in 2005 to 71% in 2016, resulting in commensurate increases in the amount of natural gas burned on FPL's system. (Silva, Hicks, Sim, Schwartz, Olivera, Yupp)

Issue 4: Are there any conservation measures taken by or reasonably available to FPL which might mitigate the need for the proposed generating units?

FPL: No. FPL is an industry leader in DSM and cost-effective conservation programs. Indeed, the U.S. Department of Energy ranks FPL number one nationally for cumulative conservation achievement and number four in load management based on the most current data available. Between 2006 and 2015, FPL will add 637 MW of load management and 729 MW of conservation for a total of 1,366 MW of incremental demand side management. This will avoid the need for another 1,639 MW of new generation capacity in those years. In addition, the United States Energy Policy Act of 2005 mandates specific energy efficiency standards and is expected to result in the avoidance of as much as 1,256 MW of capacity needs for FPL by 2014. Yet these savings already are reflected in FPL's resource planning process and there is not sufficient additional cost-effective DSM to eliminate or defer the need for FGPP to meet Florida's growing need for electrical power.

One witness suggests that FPL can defer the need for FGPP by at least five years if it increases the amount it spends on DSM. This witness does a high-level benchmarking analysis comparing FPL to utilities in Massachusetts and Pacific Gas & Electric (PG&E) in terms of DSM spending per kWh. Of the Northeastern states this witness identifies, Massachusetts, is the least effective in terms of annual kWh savings per dollar spent. Moreover, it is the peak hour kW reduction value of DSM options that

enables utilities to defer the need for new generation additions. The amount FPL spends per kW of achieved savings is as much as one-third less than the amount PG&E spends per kW of achieved savings. There is no credible evidence that shows FPL can cost-effectively triple its DSM potential over the undefined time period this witness refers to as the “long term.” (Brandt, Silva, Sim, Olivera, Green)

Issue 5: Has FPL appropriately evaluated the cost of CO2 emission mitigation costs in its economic analysis?

FPL: Yes. FGPP will best position FPL and its customers to mitigate fuel cost and environmental compliance cost uncertainties, including potential CO2 compliance cost uncertainties. CO2 is emitted by all fossil fuels. While CO2 emissions are not presently regulated, FPL considered a reasonable and appropriate range of CO2 compliance costs. FPL evaluated high, medium and mild forecasts of potential CO2 regulation based upon analyses performed by and working with ICF International, a leading consulting firm that has been the principal power consultant to the U.S. Environmental Protection Agency for over 25 years. With respect to FGPP, it is beneficial that FGPP will be a highly efficient coal-fired power plant, which efficiency translates to less CO2 for each MWH generated for customers, compared to other solid fuel generation alternatives such as IGCC. Although impossible at this time to quantify, but a significant factor nevertheless, CO2 regulation of any kind will most certainly further increase the demand for and price of natural gas. Similar reasons could drive down the price of coal. By how much these fuel prices would change due to CO2 regulation, no one can precisely project at this time, but it is certain that any resulting increase in the price of natural gas will further improve the relative economics of FGPP. So, while it is significant that the results of FPL’s analyses reflect scenarios that show FGPP is a cost-effective resource addition under certain fuel and CO2 outcomes, it is precisely because of the range of potential outcomes that it is imperative to undertake addition of FGPP as a highly efficient, fuel diverse resource for FPL’s system. (Kosky, Rose, Hicks, Sim, Jenkins, Silva)

Issue 6: Do the proposed FGPP generating units include the costs for the environmental controls necessary to meet current state and federal environmental requirements, including mercury, NOx, SO2, and particulate emissions?

FPL: Yes. Electrical power plants constructed in Florida must comply with environmental regulations, and the costs of compliance are part of FPL’s proposed FGPP. FGPP not only meets but exceeds the extensive environmental regulatory requirements, and the USCPC technology selected for FGPP is the best available alternative from an environmental perspective consistent with maintaining fuel diversity. This includes compliance with all current state and federal environmental requirements including mercury, NOx, SO2 and particulate emissions. The environmental compliance costs evaluated by FPL also reflect an appropriate range of possible future costs, which fairly and reasonably takes into account uncertainty concerning future environmental requirements and costs. With respect to potential future costs, FPL’s analyses relied upon modeling by and assistance from ICF International, a leading consulting firm that

has been the principal power consultant to the U.S. Environmental Protection Agency for over 25 years. The FGPP emissions rates will only minimally affect Florida's air quality, and even the maximum impacts are a very small fraction of environmental regulatory standards. Considering mercury as an example, it is first important to recognize that the majority of mercury deposition in Florida is from sources outside of the state. In contrast, FGPP will add such small amounts of mercury as to be immeasurable in Florida's environment. Specifically, FGPP will include investment in and operation of state-of-the-art air quality control systems including selective catalytic reduction, fabric filter, wet limestone flue gas desulfurization, wet electrostatic precipitator. The costs of all of these environmental controls are included in the costs of FGPP presented by FPL in this proceeding. Moreover FPL's economic analysis shows that FGPP will result in overall savings to customers in the majority of the fuel price and environmental compliance cost scenarios analyzed. (Kosky, Yeager, Hicks, Silva, Sim)

Issue 7: Are the proposed generating units the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes?

FPL: Yes. FGPP is the most cost-effective alternative available that will also maintain fuel diversity and system reliability. The expected installed cost for FGPP is \$3,456 million (2013 dollars) for FGPP 1 and \$2,244 million (2014 dollars) for FGPP 2, resulting in a total estimated cost of \$5,700 million. For FGPP 1, this cost includes \$2,521 million for the power plant, including land acquisition for the power plant, \$274 million for the transmission interconnection and integration, including land acquisition for the off-site transmission system, and \$661 million in allowance for funds used during construction ("AFUDC") to an in-service date of June, 2013. For FGPP 2, this cost includes \$1,668 million for the power plant, \$195 million for the transmission interconnection and integration, and \$381 million in AFUDC to an in-service date of June, 2014.

While the capital costs of FGPP are higher relative to comparably sized gas-fired generating units, they are offset to a large extent by fuel cost savings. For example, the estimated net effect on a residential 1,000 kWh monthly bill for both FGPP units is \$3.96 under a relatively conservative scenario using projections from the lower half of the range of fuel forecasts analyzed by FPL. The estimated increase in the 1,000 kWh residential bill for the first year revenue requirements for both FGPP units is \$9.41, and the corresponding projected fuel savings for both units as described above, compared to not adding FGPP or any new generation, is \$5.45 for a net effect of \$3.96. These savings are in addition to the reliability benefits associated with a diverse fuel source -- benefits that, depending on the scenario that impacts the flow or availability of natural gas, may be enormous, but which are not capable of being fully quantified on a projected basis.

It is clear that adding FGPP to FPL's electric generating portfolio provides a substantial hedge or insurance for customers against high fuel costs, especially high natural gas costs, at a reasonable cost. In future periods when natural gas prices are high, all other things being equal, the lower cost of the solid fuel used by FGPP will clearly

benefit customers. If natural gas prices in the future are low, the comparative cost benefit of FGPP diminishes but customers benefit from the low cost of gas used in natural gas-fired generating units. By the same token, factors such as lower or higher carbon dioxide environmental compliance costs, which may be established by future laws and regulations, will affect the economic advantage or disadvantage of FGPP compared with other generation sources, but by how much is entirely unclear. Such uncertainties arise for reasons outside of FPL's and the Commission's control. But, it is precisely because of such uncertainties that FGPP should be constructed.

Given the significant variables at issue with regard to FGPP, there is no one cost outcome that can be projected with any reasonable degree of certainty. Indeed, FPL is not recommending approval of FGPP based on any specific projected outcome. Rather, FPL's projected range of cost outcomes for FGPP indicate a reasonable range of potential outcomes based on fuel and environmental compliance costs over an extended period of time. It is this range of potential outcomes that illustrates and underscores one of the principal reasons to maintain fuel diversity.

Any delay in adding FGPP to mitigate the effect of uncertainty – uncertainty that cannot be avoided - would certainly result in deterioration of FPL's system reliability. The fact is that neither FGPP, nor a gas-fired facility that would inevitably have to be added to maintain system reliability if FGPP is delayed or rejected, can be shown to have been the best choice under all reasonable possible future conditions. The continuing debate on the form, extent, and ultimate cost of CO2 regulation, including its impact on the demand for and cost of natural gas, should not impede efforts to create a more fuel-diverse portfolio of generating assets. The best course, faced with the almost certain prospect of higher energy prices, but not knowing how the relative costs of various fuel and generation types will actually play out either in the near or the long term, is to pursue more diversity in FPL's generating portfolio by adding FGPP at this time.

Thus, FPL is requesting approval of FGPP to meet projected load on the basis of an interest in and need for fuel diversity, consistent with Section 403.519, Florida Statutes. Specifically, FGPP will help FPL manage and mitigate such risks on behalf of customers as part of a well-balanced and diversified FPL resource portfolio. For these reasons, in considering the factors set forth under the Florida Power Plant Siting Act ("PPSA"), the Commission should place particular emphasis and weight on the need for fuel diversity, an important addition to the statutory standard of review added to the PPSA in the most recent legislative session. (Olivera, Silva, Hicks, Sim, Damon, Jenkins, Kosky, Rose, Schwartz, Yeager, Yupp, Coto, Sanchez, Brandt)

Issue 8: Based on the resolution of the foregoing issues, should the Commission grant FPL's petition to determine the need for the proposed generating units?

FPL: Yes. FPL submits that FGPP satisfies all of the requirements contained in Section 403.519 and applicable Commission rules. FPL has appropriately considered all available alternatives to meet the resource needs of FPL's customers and maintain fuel diversity in the future. FPL has performed an effective, complete evaluation that

addressed all issues relevant in the determination of the best resources to add to FPL's portfolio in 2013 and 2014. FGPP will be the most cost effective way to maintain solid fuel coal-fired generation as a major element of the generating portfolio serving FPL's customers beginning in the 2013-2014 time period in which customers need large amounts of additional capacity, maintaining the balance of fuel diversity, reducing Florida's dependence on fuel oil and natural gas, and contributing to the long-term stability and reliability of the electric grid. Delaying the decision to add FGPP would not be in the best interests of FPL's customers because such a delay would likely be, in effect, a decision to reject FGPP and consequently not maintain fuel diversity, making FPL's customers even more vulnerable to the very uncertainties that a delay would purport to mitigate. FPL's petition for a determination of need for FGPP Units 1 and 2 should be granted. (Olivera, Silva, Brandt, Hicks, Sim, Yupp, Schwartz, Coto, Sanchez, Green, Jenkins, Kosky, Yeager, Damon, Rose)

Issue 9: Should this docket be closed?

FPL: Yes.

VI. POLICY ISSUES

FPL believes issues 1-8 involve issues of policy.

VII. STIPULATED ISSUES

There are no stipulated issues at this time.

VIII. PENDING MOTIONS

The following motions are pending:

FPL's Motion for Temporary Protective Order, filed March 2, 2007 regarding OPC's 1st set of requests for PODs, Nos. 1,2,3,5

FPL's Motion for Temporary Protective Order, filed March 12, 2007 regarding OPC's 2nd set of requests for PODs, Nos. 8,9,12.

IX. PENDING REQUESTS FOR CONFIDENTIAL CLASSIFICATION

The following request for confidential classification is pending:

FPL's Amended Request for Confidential Classification, filed March 15, 2007.

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, FPL has no objections to a witness' qualifications as an expert.

Respectfully submitted this 30th day of March, 2007.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished electronically and by United States Mail this 30th day of March, 2007, to the following:

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- *** Not an official party as of the date of this filing