

John T. Butler Managing Attorney Florida Power & Light Company 700 Universe Boulevard -. Juno Beach, FL 33408-0420 (561) 304-5639 (561) 691-7135 (Facsimile)

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April 7, 2009

# VIA HAND DELIVERY

Ms. Ann Cole Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard, Room 110 Tallahassee, FL 32399-0850

# Re: Docket No. 09 0172-EI Florida Power & Light Company's Petition to Determine Need for FPL FloridaEnergySecure Line

Dear Ms. Cole:

I am enclosing for filing on behalf of Florida Power & Light Company ("FPL") the original and seven (7) copies of FPL's Petition to Determine Need for Florida EnergySecure Line, including appendices.

Also enclosed for filing are the original and fifteen copies of prepared testimony and exhibits for the following FPL witnesses: (1) Sam Forrest; (2) Robert G. Sharra; (3) Heather C. Stubblefield; (4) Juan E. Enjamio; (5) Dr. Rosemary Morley; (6) Clinton M. Collins; and (7) Timothy C. Sexton.

Finally, I am enclosing for filing the original and seven (7) copies of FPL's Request for Confidential Classification of certain exhibits to the testimony of witnesses Stubblefield, Sharra and Sexton. Pursuant to Rule 25-22.006, F.A.C., I am also enclosing one highlighted and two redacted copies of the confidential documents that are the subject of this request.

The electronic versions of FPL's petition and confidentiality request are contained on an EXE -Lenclosed CD. The operating system for the electronic versions is Windows XP, and the word COM 5 processing software is Word 2003.

If there are any questions regarding this transmittal, please contact me at 561-304-5639.

Sincerely

John T. Butler

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Enclosures

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## **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In re: Florida Power & Light Company's Petition to Determine Need for FPL Florida EnergySecure Pipeline Docket No. 090172

Filed: April 7, 2009

PETITION

Pursuant to the Natural Gas Transmission Pipeline Siting Act, ("NGPSA") Sections 403.9401 to 403.9405, Florida Statutes, ("F.S.") specifically Section 403.9422, F.S., as well as Section 366.04 F.S., and Rules 25-22.090, 25-22.091, and 28-106.201, Florida Administrative Code ("F.A.C."), Florida Power & Light Company ("FPL" or the "Company") petitions this Commission for an affirmative determination of need for the construction of the Florida EnergySecure Line, a natural gas transmission pipeline as defined in Section 403.9403(16), F.S., including the mainline, all associated laterals and branch lines, equipment, facilities, and buildings. The FPL Florida EnergySecure Line may be referred to herein as the "Project."

## I. Introduction and Overview

1. Florida is one of the most populous states in the nation and has historically been one of the fastest growing. Even with the growth rate having declined recently and reduced electric usage, FPL must continue to make significant investments in new infrastructure to keep pace with the increasing demand for adequate, reliable power associated with long-term growth.

2. FPL is and will continue to be dependent on clean-burning natural gas as a primary fuel source in producing electricity for the foreseeable future. By 2030, FPL's summer peak load is expected to grow 12,871 MW over the 2008 actual peak load. FPL continues to advance energy efficiency and load management techniques through industry-leading

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DOCUMENT NUMBER-DATE 0 3 0 6 5 APR -7 8 FPSC-COMMISSION CLERK conservation efforts and other demand side management ("DSM") programs, and actively cultivates and pursues the development of additional renewable generating capacity within the state. These efforts by themselves, however, are not enough. FPL must also continue building large, baseload capacity additions if the Company is to continue providing reliable service at reasonable prices.

3. FPL will meet its capacity needs with a diverse portfolio which is likely to include nuclear projects as well as substantial amounts of renewable generation, but will also continue to include natural gas-fired power plants. For example, in recognition of the economic and environmental benefits of additional, highly efficient gas-fired generation, the Commission approved the need for modernizations at FPL's Cape Canaveral and Riviera plants to new 3x1 G combined cycle units on September 4, 2008 (the Cape Canaveral modernization is referred to as the Cape Canaveral Next Generation Clean Energy Center ("CCEC") and the Riviera modernization is referred to as the Riviera Beach Next Generation Clean Energy Center ("RBEC"); collectively, they are referred to as the "Modernization Projects").<sup>1</sup> By themselves, the Modernization Projects will require approximately 400 million cubic feet of natural gas per day ("MMcf/d"). In total, FPL anticipates incremental natural gas firm transportation needs of over 1.6 billion cubic feet per day ("Bcf/d") by the year 2030.

4. The current natural gas transmission capacity in Florida is inadequate to meet FPL's incremental natural gas supply requirements for the Modernization Projects or beyond. Current delivery capabilities of the existing pipeline system are not capable of delivering the volumes at the high inlet pressure required for the new facilities. Moreover, continuing to

<sup>&</sup>lt;sup>1</sup> Order No. PSC-08-0591-FOF-EI, issued September 12, 2008, in Docket No. 080245-EI, In re: Petition for determination of need for conversion of Riviera Plant in Palm Beach County, by Florida Power & Light Company; and, Docket No. 080246-EI, In re: Petition for determination of need for conversion of Cape Canaveral Plant in Brevard County, by Florida Power & Light Company.

increase FPL's reliance on the two existing Gulf-area pipelines would not be in the best interest of FPL, its customers, or the state of Florida. To the contrary, all of those interests would benefit from diversifying the supply of natural gas. They would also benefit from the increased reliability of supply that would be provided by a third major pipeline that takes a different route into Florida, further away from the risks of storm impacts.

5. FPL seeks from the Commission an affirmative determination of need for the Florida EnergySecure Line. The Florida EnergySecure Line is projected to be placed into full commercial operation in January 2014 and will consist of approximately 280 miles of mainline pipe, and approximately 23 miles of lateral and branch lines. Approximately two-thirds of the initial capacity of the Florida EnergySecure Line will serve the natural gas transportation needs of the Modernization Projects. As initially constructed, the Florida EnergySecure Line will have a capacity of 600 MMcf/d, which can be increased as required up to 1.25 Bcf/d with the addition of relatively inexpensive gas compression upgrades. In the north, the Florida EnergySecure Line will be connected to a newly-constructed, interstate pipeline contracted by FPL (the "Upstream Pipeline"), and built and separately permitted by a third party company (referred to as "Company E" for confidentiality purposes) at or near Florida Gas Transmission, LLC ("FGT") Compressor Station 16 ("FGT Station 16"). The Florida EnergySecure Line will terminate at FPL's Martin plant site, where, with Federal Energy Regulatory Commission ("FERC") approval, it could interconnect with other pipelines and facilitate delivery of gas for most of FPL's gas-fired fleet. The Project includes two laterals that will serve the Modernization Projects. The Project also includes upgrades at FPL's 45<sup>th</sup> Street Terminal near the Riviera plant in Palm Beach County, including an upgrade of the existing interconnection with FGT, and installation of permanent compression. The Florida EnergySecure Line will continue to serve FPL's customers as additional gas-fired generation is added to meet customer demand over the useful life of the project, which is estimated to be in excess of 40 years.

6. FPL's request for an affirmative determination of need is the culmination of extensive investigation and analyses designed to identify the best alternative to meet FPL's forecasted need for natural gas supply. FPL conducted a broad-reaching solicitation for proposals to meet its future gas transportation requirements and carefully evaluated the responses to that solicitation. FPL then developed resource plans analyzing FPL's natural gas transportation needs, conducted economic analyses that examined FPL's future need for gas under a variety of scenarios, and determined the total impact on FPL's power supply system revenue requirements. The results of these economic analyses show that, under a range of scenarios, the Florida EnergySecure Line is the least cost gas transportation alternative on a cumulative present value basis. As further discussed below, when its other beneficial non-economic attributes, such as increased natural gas supply reliability and flexibility, are taken into account, the Florida EnergySecure Line is clearly the best alternative for FPL's customers and Florida as a whole.

 In summary, the Florida EnergySecure Line will provide the following benefits to FPL, its customers and Florida:

- Increased reliability of natural gas transmission within Florida;
- Increased deliverability of natural gas within Florida with the addition of 600 MMcf/d of new gas supply;
- Enhanced reliability and options in the event of any interruption on either of the existing Gulfstream or FGT pipelines;
- Additional diversification of the gas supplies available to Florida;

- The most cost-effective solution to meet the needs of the Modernization Projects, as well as other natural gas delivery needs of the State;
- Pipeline-to-pipeline and gas supply-to-gas supply competition; and,
- Growth in state and local economies, new construction jobs, as well as substantial local purchases of materials and supplies.

8. Achieving these benefits depends upon the Commission granting an affirmative need determination in this proceeding, so that FPL may proceed toward building the Florida EnergySecure Line to supply gas for the Modernization Projects. Those projects currently have in-service dates of 2013 for CCEC and 2014 for RBEC.

9. The Florida EnergySecure Line, in concert with the Upstream Pipeline, captures a once-in-a-generation opportunity where there is sufficient immediate natural gas transportation needs (i.e., the Modernization Projects) to economically justify construction of a new, geographically separate pipeline into Florida. Denying the requested need determination would result in the loss of the Florida EnergySecure Line's many benefits for years to come. There is no "do nothing" option: either the Florida EnergySecure Line will be approved and built, or FPL will need to make large, long-term commitments with one of the incumbent gas transportation providers – options that would entail substantial infrastructure additions. The current need for substantial additional gas transportation capacity thus creates an economic window of opportunity to construct a major new pipeline that will expand and diversify Florida's gas transportation infrastructure and provide economic future expansion opportunities as Florida's gas needs grow. However, that window will close if FPL has to commit instead to continued reliance on the existing pipeline infrastructure.

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# II. Identification of Existing Natural Gas Pipelines (Rule 25-22.091(1))

10. Natural gas supplies are primarily delivered into Florida by two major interstate pipeline systems: the FGT system and the Gulfstream Natural Gas ("Gulfstream") system. The FGT system, which extends from southern Texas to Florida, is designed to gather natural gas supplies received in Texas, Louisiana, Mississippi and Alabama for delivery to markets within Florida. The Gulfstream system, which is designed to gather natural gas from various receipt points in the Mobile Bay area, extends from Alabama, across the Gulf of Mexico, to its terminus at FPL's West County Energy Center in Palm Beach County, Florida. In addition to the FGT and Gulfstream systems, Southern Natural Gas Company ("SNG") recently constructed its Cypress Project to transport regasified liquefied natural gas ("LNG") from SNG's LNG facility in Elba Island, Georgia to markets within Florida. As required by Rule 25-22.091(1), attached as Appendix A is a map of all existing, all Florida Public Service Commission (FPSC) or FERC approved but not yet in service and all proposed natural gas transmission pipelines, including laterals, within any Florida county in which the proposed project will be located.

#### III. Project Ownership and Financial Information (Rules 25-22.091(2)(a)-(d))

11. The name and address of the Florida EnergySecure Line owner is:

Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408

12. The names and addresses of FPL's representatives to receive communications regarding this docket are:

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R. Wade Litchfield Vice President, Regulatory Affairs and Chief Regulatory Counsel Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408 Telephone: 561-691-7101 John T. Butler Managing Attorney Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408 Telephone: 561-304-5639

13. FPL is a Florida corporation with headquarters at 700 Universe Boulevard, Juno Beach, Florida, 33408. FPL is an "applicant" as defined in Section 403.9403(3), F.S., for the purposes of this proceeding.

14. FPL currently serves approximately 4.5 million retail customers throughout Florida. Its service area comprises about 27,650 square miles in 35 Florida counties. Approximately nine million people live within the area FPL serves, which ranges from St. John's County in the north to Miami-Dade County in the south, and westward to Manatee County.

15. As required by Rule 25-22.091(2)(a), F.A.C., a list of all company officers, their addresses and phone numbers, and all corporate affiliations is attached hereto as Appendix B.

16. As required by Rule 25-22.091(2)(b), F.A.C., copies of the annual reports to shareholders for the last three years for FPL are attached hereto as Appendix C.

17. As required by Rule 25-22.091(2)(b), F.A.C., copies of the 10-K Reports to the Securities and Exchange Commission for the last three years for FPL are attached hereto as Appendix D.

18. As required by Rule 25-22.091(2)(c), F.A.C., copies of all rating agency and security analyst reports for the last two years for FPL are attached hereto as Appendix E.

19. Pursuant to Rule 25-22.091(2)(d), F.A.C., there are no presentations related to the project given by FPL to, or prepared for, banks and other lenders, security analysts, and rating agencies for the last two years.

IV. Description of Proposed Natural Gas Transmission Pipeline (Rule 25-22.091(2)(e))

20. The Florida EnergySecure Line will be located entirely within Florida, commencing near FGT Station 16 in Bradford County and extending southeast to its terminus at FPL's Martin Plant site. As noted above, the initial facility will consist of approximately 280 miles of 30-inch mainline pipe, approximately 23 miles of 20 to 24-inch laterals and two compressor stations. The proposed corridor would co-locate, where possible, in FPL's existing 230kV and 500kV transmission corridors. As proposed, approximately 250 miles of the pipeline will be located within FPL's existing transmission right-of-way, minimizing the project's impact as compared to a new green-field pipeline. The exact location of FPL's proposed intrastate pipeline corridor is subject to the outcome of the site certification process overseen by the Florida Department of Environmental Protection under the NGPSA.

21. The mainline of the Florida EnergySecure Line will be located entirely within Florida, commencing at a point near FGT Station 16 in Bradford County, Florida. At the north end, the Florida EnergySecure Line will interconnect with the Upstream Pipeline and, with FERC approval, potentially with the existing FGT pipeline and the Cypress Project. Commencement of the new pipeline at this location will create a northern Florida receipt hub or interconnection point. This new north Florida receipt hub will enhance the reliability of natural gas supplies, as well as increase pipeline-to-pipeline supply competition. During normal operations, natural gas will flow south from the area of Transcontinental Pipe Line Company's ("Transco") Compressor Station 85 in Choctaw County, Alabama ("Transco Station 85"), via the Upstream Pipeline into Florida and connect with the Florida EnergySecure Line for delivery to FPL and other Florida customers. During times when natural gas supply or gas transportation may be interrupted into Florida, interconnections between the Upstream Pipeline, FGT, and the Florida EnergySecure Line would permit operational flexibility to potentially deliver and/or receive natural gas to supply FPL's plants and other customers based on the specifics of the supply and demand requirements.

22. From the vicinity of FGT Station 16, the mainline will extend southeast to FPL's Martin Plant where, with FERC approval, it could be interconnected with the existing FGT and Gulfstream pipelines to create a southern Florida natural gas pipeline hub, increasing the operational flexibility of the entire natural gas system in Florida. The interconnectivity would allow for an increased collective reliability of the flow of clean natural gas fuel for energy facilities and customers in south Florida. Should an unforeseen supply or system interruption occur, fuel flow can be managed through reallocation or redirection of natural gas supplies.<sup>2</sup>

23. The Florida EnergySecure Line will connect most directly with the CCEC, RBEC and Martin plants. The CCEC is expected to be served by a 24" coated-steel pipeline lateral, which will be roughly 17 miles in length and will terminate within the boundaries of the CCEC. The Martin plant will be served directly by the mainline, which will terminate within the plant boundaries. The RBEC will be served by an existing high pressure oil/natural gas pipeline that currently connects the Martin Plant with FPL's 45th Street Terminal near the Riviera Plant.<sup>3</sup> By converting the existing oil/natural gas pipeline to primary natural gas use, FPL will avoid the need to build over 36 miles of new pipeline through many environmentally sensitive areas in western Palm Beach County. From the 45<sup>th</sup> Street Terminal the gas will be delivered to the Riviera Plant via a 3-mile 20" coated-steel pipeline lateral. Additionally, FPL will install

<sup>&</sup>lt;sup>2</sup> Interconnections to deliver gas to FGT and Gulfstream would require blanket certificate approval from FERC.

<sup>&</sup>lt;sup>3</sup> The existing pipeline, which is already permitted and fully operational, is not a part of the Florida EnergySecure Line application before this Commission.

permanent compression at the 45th Street Terminal and will upgrade an existing 3-mile natural gas lateral that connects the 45th Street Terminal to the FGT pipeline system. Additional laterals may be added at a later date to serve future generation facilities or customers.

24. FPL is projecting the Florida EnergySecure Line's initial system capacity to be approximately 600 MMcf/d with a designed maximum allowable operating pressure of 1,480 pounds per square inch. To provide this initial capacity, FPL will construct a 20,000 horsepower compressor station in Bradford County. Future compression additions will be located to optimize pipeline system operations.

25. The Upstream Pipeline will be a new interstate pipeline originating from an interconnection with the Transco at Transco Station 85, and terminating at the point of interconnection with the Florida EnergySecure Line near FGT Station 16. Company E will own and operate this upstream interstate pipeline.

26. The Upstream Pipeline will be interconnected with the facilities of other interstate pipeline companies at Transco Station 85, including Transco, Boardwalk Pipeline Partners, L.P., and Gulf Crossing Pipeline. From these pipelines, the Upstream Pipeline and the Florida EnergySecure Line will have direct access to natural gas volumes originating outside of the Gulf region, including the Barnett Shale and Bossier Sands in northeastern Texas, the Caney/Woodford Shale in southeastern Oklahoma, the Haynesville Shale in northwestern Louisiana, and the Fayetteville Shale in southern Arkansas. This additional access to Mid-Continent gas reserves will increase the diversity and reliability of Florida's natural gas supplies.

27. The Upstream Pipeline is not a part of the Florida EnergySecure Line application before this Commission. Rather, it will be certified and regulated by FERC pursuant to the provisions of the Natural Gas Act. Company E currently plans to file its application for a certificate of public convenience and necessity for the Upstream Pipeline with FERC in the Fall of 2011 on schedule to meet the required January 2014 in-service date.

28. Initially, the Florida EnergySecure Line will serve primarily the natural gas transportation needs of the Modernization Projects, with the two plants requiring approximately 400 MMcf/d, or nearly two-thirds of the pipeline's capacity. FPL anticipates that it will ultimately need the remaining 200 MMcf/d of the Florida EnergySecure Line's initial capacity and more, as FPL's gas requirements grow over time. In the meantime, the remaining 200 MMcf/d could be delivered to FPL's Martin Plant for reliability purposes, but will also be offered to other entities within the state. The 200 MMcf/d delivered to FPL's Martin Plant can displace deliveries from FGT or Gulfstream to that site, which can then be redirected to other FPL facilities or to other entities within the state. As discussed in Section V below, the Florida EnergySecure Line is the most economic gas transportation alternative for FPL's customers even if FPL does not sell any portion of the excess 200 MMcf/d of capacity available above FPL's own gas requirements. After the need process is completed, FPL plans to pursue discussions and may begin signing shippers for the unused portions of the Florida EnergySecure Line capacity. FPL customers will benefit from sales of all or a portion of the remaining 200 MMcf/d to third parties because revenues from any such sales will be credited to FPL's customers through FPL's Fuel Cost Recovery Clause. In addition, any unused transportation capacity could help meet natural gas system reliability requirements during an unforeseen delivery system interruption, by back feeding gas through the potential southern Florida hub interconnection with FGT and Gulfstream at the FPL Martin Plant as described below.

29. Once constructed, and as FPL and other Florida shippers express a need for additional contracted volumes of natural gas, FPL will be able to increase the initial capacity of

the Florida EnergySecure Line with the construction of added compressor facilities and other upgrades. With compression, FPL could increase the pipeline's capacity to 1.25 Bcf/d. These future expansions will come at a greatly reduced price to our customers as there will be minimal infrastructure required to add the additional capacity. By comparison, incumbent pipeline companies could not add such capacity without either installing new pipe or, if feasible, adding compression that would have considerably higher variable operating costs than the Florida EnergySecure Line. Thus, increasing the Florida EnergySecure Line's capacity with the upgrades will represent a much more economic form of additional gas transportation capacity than would construction of a new pipeline or other expansion alternative currently available.

30. The actual construction period is expected to take approximately one year from the time of initial mobilization through final commissioning and cleanup. FPL estimates that the capital costs of the Florida EnergySecure Line will be approximately \$1.588 billion. This estimate includes the cost for all required facilities to interconnect and deliver the initial 600 MMcf/d. FPL currently estimates that incremental expansions will cost between \$125 million and \$200 million for each additional 200 MMcf/d.

31. A Need Study Index is attached as Appendix F. This Need Study Index provides a summary description of the Florida EnergySecure Line, and identifies where the elements required by the NGPSA and Chapter 25-22, F.A.C., are addressed in the testimony and exhibits.

32. In satisfaction of Rule 25-22.091(2)(f), F.A.C., in addition to the other information shown, the map provided as Appendix A also provides the preferred route for the Florida EnergySecure Line, planned locations of compressor stations, laterals, terminus points, and other affiliated facilities.

# V. Safety and Integrity of the Proposed Project (Rule 25-22.091(3))

33. Natural gas pipelines have been safely and reliably supplying the energy needs of the U.S. for the past seventy years. Currently there are hundreds of thousands of miles of active natural gas transmission pipelines in the country, providing a critical link from the production basins to industrial, commercial and residential markets. These natural gas pipeline systems have an extremely good record of safety and reliability and today represent one of the safest modes of moving products throughout the U.S.

34. FPL is focused on safety in all aspects of its business. Whether building a new power generating plant, a new electrical transmission line or a pipeline, the safety practices, procedures and protocols are very similar. Workers are trained in all aspects of safe working procedures, as they apply to their particular responsibility before ever undertaking a project. With respect to operations, pipelines are closely regulated by the U.S. Department of Transportation ("DOT") Pipeline and the Hazardous Materials Safety Administration ("HMSA") to ensure the safe transportation of natural gas throughout all of the United States. FPL will operate the Florida EnergySecure Line in full compliance with DOT and HMSA requirements. FPL will also continuously monitor pressures and operating conditions along the pipeline to identify potential deviations from normal conditions and allow for timely adjustment and response.

35. The Florida EnergySecure Line will comply with all applicable engineering, construction, and operation standards, including those for safety. The engineering, construction and operation of the Florida EnergySecure Line project will comply with all applicable provisions of Florida's Gas Safety Law of 1967, Chapter 368, F.S.; Chapter 25-12, F.A.C., Safety of Gas Transportation by Pipeline; and 49 CFR, Parts 190 through 199, DOT Pipeline Safety

Regulations; and all codes and standards incorporated therein. FPL currently maintains an Integrity Management Program which insures its existing pipeline laterals and other facilities are maintained in accordance with regulatory safety requirements. Under these requirements FPL conducts routine maintenance and monitoring of all existing oil and gas pipelines within its system. These existing practices and procedures will be amended to include the scope of the Florida EnergySecure Line and will be applied regardless of whether FPL operates the pipeline itself or employs a third-party operator.

36. FPL has substantial experience with building and operating natural gas pipelines and other pressure piping systems. For example, FPL built and currently operates the 36-mile, 18" oil/natural gas pipeline that currently connects the Martin plant with the 45th Street Terminal. That pipeline was built in 1979 along a 36-mile route within an existing transmission corridor and a railroad easement, very similar to much of the terrain that will be encountered during construction of this project.

37. FPL has built a number of transmission and piping systems with much more complex operating and engineering conditions than the proposed Project. FPL has demonstrated in previous projects its ability to engineer and construct numerous electric transmission corridors and generating plants throughout Florida. In many respects, a gas pipeline construction project is very similar to a transmission line construction project, which involves similar land and permitting issues, as well as many of the same construction techniques.

38. FPL brings established project management skills, a highly qualified staff, and the necessary ancillary support services, procedures and staff to undertake projects of this magnitude. FPL will use competitive bidding processes to manage materials supply and construction risks. FPL is also making use of key personnel within sister companies who have years of particular experience in the design, construction and operation of pipelines elsewhere throughout North America. Every step of the Project will be guided by FPL professionals and industry consultants with vast experience in building natural gas pipelines that meet the highest industry and government standards for safety, environmental protection and operational reliability.

# VI. Need for Natural Gas Transmission (Rule 25-22.091(4))

A. <u>FPL's Summer Peak, Winter Peak, and Net Energy for Load Will Continue to</u> <u>Rise</u>

39. Summer peak demands have historically grown at an average annual rate of 2.8% or 408 MW per year since 1980. More recently, summer peak demand has been stagnant. Even with the slowdown in growth, between 2008 and 2018, FPL is projecting a 2.2% annual increase in the summer peak, or a cumulative increase of 5,083 MW. Over the longer term, the absolute increase will be even more substantial. Between 2008 and 2025, FPL is projecting a 2.3% annual increase in the summer peak, or a cumulative increase of 9,913 MW.

40. Since 1980, the winter peak has increased at an average annual rate of 2.2% or 297 MW a year. This historical growth rate is influenced by the unusually mild winter peaks experienced in recent years. Temperatures on the day of the winter peak have been higher than normal since 2004. As a result, the forecasted growth rates in the winter peak are somewhat higher than the 1980 through 2008 average growth rate. The winter peak demand is projected to increase at an annual rate of 2.7%, or 541 MW annually, between 2008 and 2018. Over the longer term, the average growth rate is expected to be slightly lower on a percentage basis, but the annual absolute increases are projected to be slightly higher because the percentage increase applies to a larger base over time. Thus, the winter peak demand is projected to increase at an annual rate of 2.4%, or 525 MW, annually between 2008 and 2025.

41. Between 1980 and 2008, NEL grew at an annual rate of 3.0%. FPL's NEL declined in 2008 following below average growth in 2006 and 2007. FPL is forecasting virtually flat energy use per customer through 2013. Even taking into account the impact of the current recession, FPL is forecasting an annual increase of 1.8% in NEL between 2008 and 2018 with NEL reaching 132,136 gigawatt hours ("GWh") in 2018. Between 2008 and 2025, a 2.0% annual growth rate is expected with NEL reaching 154,862 GWh by 2025.

B. <u>The Projected Growth in Demand Results in the Need to Develop Generating</u> <u>Resources</u>

42. FPL projects that it will need as much as 19,661 MW of new capacity between 2013 and 2040, after incremental DSM, to continue to meet its reliability criteria. FPL continues to advance energy efficiency and load management techniques through industry-leading conservation efforts and other DSM programs, and actively cultivates and pursues the development of additional renewable generating capacity within the state. FPL estimates that it can offset approximately 1,121 MW of resource needs through energy efficiency and DSM gains by 2018. Regarding renewable resources, FPL has already received approval by the Commission to develop 110 MW of solar projects at FPL's DeSoto, Space Center and Martin sites. Those projects are taken into account in all of the scenarios under which FPL evaluated its resource needs. Beyond those projects, FPL cannot predict the precise outcome of the Renewable Portfolio Standard ("RPS") proposals being discussed in Florida, or in the U.S. Congress. But FPL does expect to see some form of RPS in place in the near to midterm planning horizon. Accordingly, one of the scenarios under which FPL has evaluated the need for additional generating resources assumes the addition of 3,920 MW of incremental renewable resources between 2010 and 2040.

43. These efforts by themselves, however, are not enough. FPL must also construct large, baseload capacity additions if the Company is to continue providing reliable service at reasonable prices. FPL expects to meet its resource needs with a combination of additional energy efficiency, DSM, renewable resources (including solar and biomass), new nuclear units, as well as significant amounts of natural gas-fired baseload generation. Incremental gas-fired generation is projected to increase by 17,357 MW between 2013 and 2040. By 2030, FPL incremental natural gas needs are projected to grow to over 1.6 Bcf/d. A key component of FPL's resource mix is the Modernization Projects, which, by themselves will require approximately 400 MMcf/d.

## C. FPL's Plans to Meet its Increased Gas Transportation Needs

44. There is no existing pipeline capacity available to serve FPL's projected firm resource needs. Currently, natural gas supplies are delivered into Florida by four interstate pipeline systems. These pipelines include FGT, Gulfstream, the Cypress Project, and Gulf South Pipeline Company, L.P. ("Gulf South"). FPL currently uses significant capacity on FGT's and Gulfstream's pipeline systems, but currently does not contract with Gulf South Pipeline or the Cypress Project. The Cypress Project provides approximately 336 MMcf/d of takeaway capacity from Elba Island and interconnects with FGT near Jacksonville, FL, providing direct deliveries to markets in the Jacksonville area. Although the Cypress Project expansion by SNG introduced a new source of supply into Florida (LNG from Elba Island), FPL has not participated to date in the Cypress Project due to concerns over the lack of supplier diversity.<sup>4</sup> Gulf South provides direct deliveries to only the Pensacola area markets. While FGT and Gulfstream have provided a

<sup>&</sup>lt;sup>4</sup> The lack of supply diversity to Elba Island makes it unattractive as a primary source of gas, which is how FPL evaluated participation in the Cypress Project. However, access to Elba Island LNG as a secondary source of supply via interconnection between the Cypress Project and the Florida EnergySecure Line would be an attractive addition to FPL's range of gas-supply alternatives.

high level of reliability over the years, the demands on both pipelines have continued to grow. FGT is currently fully subscribed, and its recently announced Phase VIII expansion is largely contracted. By mid-2009, Gulfstream will be fully subscribed. Thus, the existing infrastructure is currently fully subscribed on a long-term firm contractual basis and there is no pipeline capacity available in the state to be contracted on a long-term firm basis. As such, absent the introduction of incremental pipeline capacity, the existing natural gas pipeline infrastructure cannot currently support incremental firm natural gas demand.

45. FGT and Gulfstream provide approximately 90% of the gas transportation capacity available into the State. These two providers largely obtain their supplies from the Gulf of Mexico and Gulf Coast. The aggregate projections for these sources show a decline from current levels over the long term. These sources are also largely vulnerable to weather related disruptions due to hurricane activity.

46. With the addition of the Modernization Projects, each with a peak demand of 200 MMcf/d, an expansion of the gas transportation infrastructure in the State is needed. Due to the unique situation of requiring a substantial upgrade of the existing infrastructure and the need for significant volumes to operate new facilities, FPL set out to determine whether a new major pipeline delivering natural gas to Florida could be a cost effective alternative to the expansion of the incumbent pipelines.

47. FPL's evaluation began with an analysis of FPL's current supply portfolio. Given FPL's reliance on Gulf of Mexico and Gulf Coast supply and the continuing decline in production from those sources, FPL viewed this current need as a potential opportunity to continue diversifying its sources of gas supply.

48. In order to determine the option that would provide the most economic and beneficial attributes which would meet FPL's natural gas firm transportation needs, FPL conducted a solicitation for firm gas transportation contracts and also studied the feasibility of an FPL self-built option in the form of an intrastate pipeline. On July 17, 2008, FPL submitted a Solicitation Letter to seven well-established pipeline companies in the southeast capable of providing the transportation services that FPL required, including the incumbents FGT and Gulfstream. To support FPL's desire to access new, onshore natural gas supplies, FPL requested that all parties propose a pipeline project that would provide access to natural gas supplies at Transco Station 85, with gas sourced out of the Mid-continent, giving access to newer, and growing, unconventional sources of supply, while still having access to more traditional sources through pipeline interconnections. The Solicitation Letter also informed respondents that FPL was considering development of an intrastate pipeline (later designated the Florida EnergySecure Line) capable of receiving gas at or near FGT Station 16.

49. FPL initially requested proposals for 1 Bcf/d, 800 MMcf/d and 400 MMcf/d.<sup>5</sup> FPL subsequently requested and received additional proposals based upon a 600 MMcf/d scenario. FPL requested the 600 MMcf/d proposals because its projections of load growth declined from what was originally projected when the Solicitation Letter was issued and thus FPL shifted its focus away from the higher quantity scenarios. The only proposals FPL received for the initial 400 MMcf/d scenario were for expansions of incumbent pipelines or had limited supply access. Respondents indicated that a minimum quantity of 600 MMcf/d would be necessary for a pipeline company to commit to build new pipeline infrastructure into Florida.

<sup>&</sup>lt;sup>5</sup> The solicitation requested proposals based on British Thermal Units ("BTUs"). For purposes of this Petition, one (1) MMcf/d equals 1,000 million British thermal units per day ("MMBtu/d"), assuming a heat content of 1,000 Btu per cubic foot of natural gas.

The 600 MMcf/d threshold was also supported by FPL's internal economic analysis of the Florida EnergySecure Line, which indicated that a 30-inch pipeline with an initial capacity of 600 MMcf/d provided the most cost-effective solution to meet FPL's initial requirements and afforded FPL's customers greater expansion capability at much lower costs.

50. FPL received over 60 proposals of varying terms, volumes, and delivery points. FPL sorted the individual proposals submitted by the respondents into categories based on quantity and pipeline alternative proposed. FPL then analyzed the various components of each proposal to determine an overall cost per MMcf. From this list of proposals, FPL identified as the best alternative a proposal that would provide 400 MMcf/d of firm transportation capacity (identified herein as "Company B Proposal" for purposes of confidentiality). This proposal was then compared to the Florida EnergySecure Line combined with the Upstream Pipeline on a detailed economic evaluation that took into account the benefits of future expansion. FPL evaluated the two alternatives over a forty-year period and calculated a Cumulative Present Value Revenue Requirements ("CPVRR") for each alternative.

51. Ultimately, after an analysis of the proposals under various resource plans, FPL concluded that the pipeline alternative that provided the lowest life-cycle cost to the customer and the greatest supply diversity was a combined project which included an Upstream Pipeline segment proposed by Company E and the Florida EnergySecure Line. Compared to the Company B Proposal, the total savings to customers over the forty-year life of the project was estimated to be \$204 million to \$513 million (CPVRR).<sup>6</sup> This economic advantage does not

<sup>&</sup>lt;sup>6</sup> FPL recently received an additional proposal from one of the respondents while FPL was in the process of finalizing the economic analysis and testimony preparation. This proposal was an unsolicited update from the company that had submitted the next-best alternative (Company B), which would result in a lower proposed gas transportation charge. Based on prior commercial dealings, FPL is skeptical that Company B could or would actually deliver gas at the newly reduced charge. However, even if Company B were willing and able to do so, FPL estimates that the Florida EnergySecure Line/ Upstream Pipeline Project proposal would remain the most beneficial alternative for FPL's customers.

include any benefit to FPL's customers of short-term off-system sales of gas transportation capacity. Sales made possible by the Florida EnergySecure Line could provide additional benefits to our customers, potentially in the range of approximately \$200 million to as high as approximately \$700 million. These potential benefits would be in addition to the Florida EnergySecure Line's CPVRR savings to customers described above.

VI. Reliability of Access to Gas Supplies and Adequacy of Upstream Transportation (Rule 25-22.091(5))

52. The natural gas supply resource base available to the Florida EnergySecure Line via the Company E system includes access to substantial traditional domestic onshore and offshore Gulf Coast region supply basins and LNG supply access as well as access to growing unconventional shale gas supply basins. Access to these supplies will be accomplished by the pipeline interconnection with the upstream Company E pipeline and the substantial number of interconnections that exist upstream of this pipeline system.

53. After the installation of pipeline facilities recently placed in-service, currently under construction and planned for the next few years, it is projected that new third party capacity to Transco near its Station 85 will total nearly 5.0 Bcf/d. This capacity, coupled with Transco's traditional capacity upstream of the Transco Station 85 of approximately 4.7 Bcf/d, can provide a total of about 9.7 Bcf/d to the Transco Station 85 area. This total capacity will be sufficient to meet the demands of all of Transco's customers, as well as for the demand on the proposed Florida EnergySecure Line.

54. FPL has executed a Letter of Intent (LOI) with Company E to negotiate a precedent agreement based upon the proposal submitted by Company E in response to the Solicitation Letter. The LOI, which is attached to FPL witness Stubblefield's testimony as

Confidential Exhibit HCS-3, expresses FPL's and Company E's intent to negotiate a Precedent Agreement on or before October 1, 2009 that would provide for 600 MMcf/d of gas transportation from Transco Station 85 to be delivered to the Florida EnergySecure Line at FGT Station 16, beginning on January 1, 2014. The agreement will provide for the necessary access to natural gas supply and delivery rights required to deliver natural gas into the Florida EnergySecure Line. The agreement will be similar to FPL's current firm transportation agreements with FGT and Gulfstream, and FPL would request recovery of all costs associated with the firm transportation on the Upstream Pipeline Project through the Fuel Cost Recovery Clause.

55. As detailed in FPL witness Sharra's Confidential Exhibit RGS-3, Company E is a large, financially strong, experienced provider, owner, and operator of natural gas pipelines. Company E has a solid track record of pipeline development, construction and operations.

56. The construction and operation of the Florida EnergySecure Line will not adversely impact any of the current Florida customers of existing pipelines. Additionally, FPL's numerous long-term firm transportation agreements with both FGT and Gulfstream will not be impacted by a decision to proceed with this new pipeline.

VII. Benefits of Constructing the Florida EnergySecure Line (Rule 25-22.091(6))

57. For the reasons discussed above, there are a number of substantial benefits that will inure to FPL's customers, the state of Florida, its citizens, industry and economy from the construction and operation of the Florida EnergySecure Line. In summary, the Florida EnergySecure Line will provide the following benefits:

(a) <u>Improvement or maintenance of deliverability, reliability, safety, and integrity of</u> <u>natural gas transmission within Florida</u>. By facilitating introduction of a third major interstate pipeline into Florida, the Project will increase the reliability of FPL's delivery system and reduce FPL's current reliance on the existing pipeline infrastructure. By adding a uniquely routed pipeline that is connected at multiple points with the existing infrastructure of the State, the Florida EnergySecure Line will increase the reliability of the natural gas infrastructure of Florida. The resulting integrated pipeline system will enhance operations reliability, as well as adding options if there are any interruptions on existing pipelines, and will provide further protection against weather-related supply disruptions to which the Gulf supply is particularly susceptible. The Upstream Pipeline will give FPL, as well as other natural gas users in Florida, access to LNG, traditional Gulf Coast supply, and unconventional shale gas supply through a large existing pipeline infrastructure. Having access to several supply basins protects against declining production, whether temporary or permanent, in a particular basin.

(b) <u>Accommodation of load growth.</u> The Project will ensure adequate supply for the Modernization Projects and provide an additional 200 MMcf/d of natural gas for use by FPL and other entities in need of supply. The Project also will provide cost-effective expansion capacity to enable FPL to meet future load growth needs.

(c) Improvement of the economics of natural gas transmission within Florida to assure the economic well-being of the public. As discussed above, the Florida EnergySecure Line is the most cost-effective solution for meeting FPL's future gas requirements for FPL's customers, even before taking into account the potential for offsetting revenues from sales of capacity to third parties and its other reliability and diversity benefits. The Project will enable FPL to reduce supply risk and price volatility resulting from the existence of only two major natural gas transportation suppliers in Florida and thereby minimize adverse impacts on FPL customers' rates. By facilitating the introduction of a new major interstate pipeline into Florida and establishing a new natural gas supply point in northern Florida through interconnection with Company E and FGT, and the potential to interconnect with the Cypress Project, the Florida EnergySecure Line will enhance pipeline-to-pipeline and gas supply-to-gas supply competition.

(d) <u>Conservation or displacement of oil.</u> The Florida EnergySecure Line will serve the Modernization Projects, which involve the replacement of 1960s-era oil and natural gas fueled steam electric generating units with highly efficient combined cycle units. As a result, the Florida EnergySecure Line supports FPL's and the state of Florida's long-term plan to reduce greenhouse gas emissions by utilizing the most efficient generation technology and cleanest fuels.

(e) <u>Other useful purposes.</u> The Project involves substantial capital investment, which will provide a significant immediate and on-going positive economic impact. The construction of the Florida EnergySecure Line would bring substantial economic benefits to Florida and local economies over the short and long terms. The Florida EnergySecure Line is projected to create over 3,500 direct construction jobs in Florida, and 4,000 indirect jobs. Florida sales tax from construction will be approximately \$20 million. Furthermore, it is estimated that over the life of the Project, the Florida EnergySecure Line will contribute more than \$400 million in tax benefits to local governments. In total, through the direct and indirect effects of spending from wages and output during construction, the pipeline's installation is estimated to generate an overall economic impact of \$1.2 billion.

# VIII. Adverse Consequences of Project Delay or Denial (Rule 25-22.091(7))

58. The permitting of a Florida-based intrastate pipeline is a relatively new and untried process within Florida, as siting a pipeline under the NGPSA process has only been attempted once prior. There is the considerable potential for unforeseen issues. Initiating the permitting process now is essential to positioning the company to meet the currently projected inservice date of January 2014.<sup>7</sup> Any significant delay in the construction and in service date of the Florida EnergySecure Line could jeopardize FPL's ability to supply natural gas to the Modernization Projects in sufficient quantity and at the required gas pressure when those projects go into service.

59. Currently, there exists a confluence of demand, economic, and non-economic benefits from the construction of the Florida EnergySecure Line. A denial of FPL's application would deprive FPL customers and Floridians of all of the benefits described throughout this Petition and summarized in Section VII.

60. FPL is filing with this petition the prepared direct testimony and exhibits of seven witnesses: Sam Forrest, Robert G. Sharra, Heather C. Stubblefield, Juan E. Enjamio, Dr. Rosemary Morley, Clinton M. Collins and Timothy C. Sexton. The testimony and exhibits of these seven witnesses, as well as Appendices A-F attached to this Petition, are incorporated by reference herein.

WHEREFORE, for the reasons set forth above and as more fully set forth and described in the supporting testimony and documents filed with this Petition, FPL respectfully requests that the

<sup>7</sup> Because of the potential for unforeseen issues and the attendant risk of delay under the NGPSA, getting started now is important regardless of the exact in-service date for the Project.

Commission grant an affirmative determination of need for the Florida EnergySecure Line, and any additional appropriate relief as the case and law may warrant.

Respectfully submitted, this 7<sup>th</sup> day of April, 2009.

R. Wade Litchfield Vice President, Regulatory Affairs and Chief Regulatory Counsel John T. Butler Managing Attorney Scott A. Goorland Principal Attorney Attorneys for Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408-0420

By:

Jøhn T. Butler Fla. Bar No. 283479