

090000-0T

# Exhibit B

# REDACTED

COM \_\_\_\_\_  
ECR \_\_\_\_\_  
GCL \_\_\_\_\_  
OPC \_\_\_\_\_  
RCP \_\_\_\_\_  
SSC \_\_\_\_\_  
SGA   I    
ADM \_\_\_\_\_  
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DOCUMENT NUMBER-DATE

03683 APR 21 8

FPSC-COMMISSION CLERK

**FLORIDA PUBLIC SERVICE COMMISSION  
2009 TEN YEAR SITE PLANS  
SUPPLEMENTAL DATA REQUEST : FORECASTING & PLANNING**

Company Name: Progress Energy Florida, Inc.

April 1, 2009

Note: If a question is not applicable to the utility, please state "Not Applicable" or "N/A" as appropriate.

**I. General:**

- 1. Provide all data requested on the attached forms, in electronic (Excel) and hard copy. If any of the requested data is already included in the company's Ten-Year Site Plan, state so on the appropriate form.

**II. Load Forecasting:**

- 2. Provide, on a system-wide basis, historical annual heating degree day (HDD) data for the period 1999 through 2008 and forecasted annual HDD data for the period 2009 through 2018. Describe how the company derives system-wide temperature if more than one weather station is used.

**Answer:** Historic and projected HDDs and CDDs are as follows:

PEF Heating & Cooling Degree Days  
Historic & Projected

<b>History</b>	<b><u>Year</u></b>	<b><u>HDD</u></b>	<b><u>CDD</u></b>
	1999	441	3,029
	2000	549	2,966
	2001	592	2,874
	2002	540	3,155
	2003	629	3,005
	2004	528	2,958
	2005	540	2,991
	2006	510	2,956
	2007	426	3,086
	2008	480	2,951
<b>Forecast</b>	2009-18	578	2,982

System-wide weather variables are derived using several weather stations disbursed across the PEF service territory. Weather station weights were developed based upon a percentage share each station "captured" in a regression model correlating monthly system energy sales and monthly HDDs and CDDs by weather station.

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**Phase II** – Placed into service on May 1, 2008, Phase II increased the project's total operational capacity to an estimated 340,000 MMBtus per day.

Please see Attachment Nos. 25-1 and 25-2 extracted from SNG's Cypress presentation made to PEF that highlights these phased expansions of the Elba Island LNG Terminal, Cypress Project and FGT's Phase VII project.

#### **Gulfstream Natural Gas System Phase IV**

In January 2006, Gulfstream and PEF entered into a Precedent Agreement with Gulfstream to provide firm transportation service for the Repower Project at the P.L. Bartow Plant. The three (3) existing oil fired steam turbines are being repowered in a gas fired 4X4X1 combined cycle configuration with four (4) combustion turbines, four (4) heat recovery steam generators and one (1) common steam turbine. The recommendation to proceed with the Gulfstream transportation agreement was based on a competitive analysis of costs, project certainty, access to growing onshore supply and operational flexibility. In December 2006, Gulfstream filed its NGA 7c Needs Certificate Application with the FERC, requesting authorization to install, construct, own, operate and maintain Phase IV of the Gulfstream Project which consists of approximately 17.74 miles of 20-inch diameter offshore pipeline in Tampa Bay, Florida and the installation of an additional 15,000 HP of compression at an existing compressor site in Coden, Alabama. In addition, the project included construction of a new 30,000 HP gas pipeline compressor facility (Station 420) in Manatee County, Florida. In September 2007, the FERC issued an Order approving Gulfstream's Certificate and authorizing them to construct, own and operate this new pipeline project and additional compression.

The Bartow Repowering Project is expected to be placed into commercial service in June 2009. Please see Attachment No. 25-3 for an overview of Gulfstream Phase IV.

#### **PROPOSED**

##### **Florida Gas Transmission Phase VIII Expansion Project**

In January 2008, FGT announced an Open Season for a proposed Phase VIII expansion project. The target in-service date for the Phase VIII Expansion Project is spring 2011.

In April 2008, PEF entered into a Precedent Agreement ("PA") with FGT for firm transportation service to support growing system needs [REDACTED].

Based on publically available information, in October 2008, FGT filed its NGA 7c Certificate Application with the FERC. Based on the filing, the expansion project was originally sized to approximately 820,000 MMBtus per day. In the filing, FGT indicated

that FPL had executed a 25-year term service agreement for 400,000 MMBtus per day. In addition to FPL, five (5) other shippers executed PAs for approximately 331,000 MMBtus per day. In total, the six (6) PAs accounted for approximately 731,000 MMBtus per day of firm transportation service. Based upon publicly available data, the original six (6) shippers are FPL, PEF, Seminole, TECO, OUC and the City of Tallahassee.

[REDACTED]

#### **Southern Natural Gas Company ("SNG") Cypress Phase III Expansion Project**

**Phase III** – At this time, PEF does not know if SNG has the necessary customer support to proceed with Phase III. However if built, Phase III is expected to increase the total expansion project's capacity by approximately 160,000 MMBtus per day to a total operational capacity estimated to be 500,000 MMBtus per day.

#### **Gulfstream Natural Gas System G2 Expansion Project**

**Open Season** – Gulfstream held a Non-Binding Open Season from June 2007 through August 2007 with service targeted to commence in the summer of 2011.

[REDACTED]

To date, the Non-Binding open season is still active. PEF continues to evaluate and monitor on-going developments associated with this potential expansion.

26. Please discuss in detail any existing or planned natural gas pipeline expansion project, including new pipelines and off-shore projects, outside the State of Florida that will affect the company over the period 2009 through 2018.

**Answer:** PEF is providing information that is in a large part based on public sources such as but not limited to company websites and FERC filings.

The project descriptions outlined below are not intended to be an all inclusive list of all the upstream pipeline projects that are occurring or proposed in the Gulf Coast and Southeast Region. The project descriptions provided are for projects that PEF believes will provide incremental natural gas supply impact for the State of Florida and the company.

#### **Southeast Supply Header ("SESH")**

SESH is a 50/50 joint venture between Spectra Energy and CenterPoint Energy. In December 2006, SESH and PEF entered into a Precedent Agreement ("PA") for a total of 200,000 MMBtus per day of firm transportation service for 15 years to be phased in over three (3) years beginning on June 1, 2008.

Based on publically available information, in December 2006, SESH filed its original NGA 7c Needs Certificate Application with the FERC. SESH was a new greenfield natural gas pipeline system consisting of approximately 269 miles of pipe, three (3) mainline compressor stations, two (2) booster stations and other facilities. SESH interconnects with Gulf South Pipeline Company ("Gulf South") and CenterPoint Energy Gas Transmission Company ("CEGT") expansion projects which accesses unconventional onshore shale gas and tight sands gas production along a pipeline corridor extending from Carthage (TX) to Perryville (LA) delivering to the Perryville Hub located near Delhi, Louisiana. SESH extends from the Perryville Hub area on a southeasterly direction and terminates at an interconnection with Gulfstream near Coden, Alabama. SESH created approximately one (1) Bcf per day of new transportation capacity. In September 2007, the FERC issued an Order approving the SESH request for needs certificate authorization. In this order, SESH indicated that they had entered into precedent agreements with five (5) shippers for 945,000 MMBtus per day of firm transportation service. The five (5) firm shippers included are FPL, PEF, Southern Company Services, EOG Resources, and TECO.

In addition, Southern Natural Gas Company ("SNG") will own capacity in a jointly owned segment from the Perryville Hub to a point located in Gwinville, Mississippi interconnecting with the SNG system.

SESH connects with natural gas pipelines which provide access to onshore unconventional natural gas supply from the Barnett Shale, Bossier Sands, Arkoma, and Fayetteville Shale basins. Also, SESH has multiple interconnections with interstate pipelines including Columbia Gulf, Texas Eastern, Sonat, Transco, Tennessee, Florida Gas Transmission and Gulfstream which provide it the ability to potentially reach markets in the Southeast, Atlantic, and Northeast regions of the United States. Also, SESH has direct or indirect access to numerous existing and proposed storage facilities, including Egan Hub Partners (via upstream pipelines), Moss Bluff Hub Partners (via upstream pipelines), Southern Pines Energy Center (a direct connect to existing storage), Petal Gas Storage (a direct connect to existing storage), Copiah Hub Partners (proposed project), and MoBay Storage Hub (proposed project). This project allows PEF to access a broader base of suppliers, significantly improves supply reliability and accesses competitively priced and growing onshore unconventional natural gas supply resources.

SESH began providing service to PEF on or about September 6, 2008.

Please see Attachment No. 26-1.

#### **Transcontinental Gas Pipe Line Corporation ("Transco") - Mobile Bay Phase I**

**Open Season** – Based on publically available information, in October 2007 Transco announced a new non-binding Open Season of incremental capacity to be available from Transco's Station 85 Pool near Butler in Choctaw County, Alabama to points on its Mobile Bay Lateral south to an interconnect between Transco and Gulfstream near

Coden in Mobile County, Alabama under Transco's proposed "Mobile Bay South Expansion". The expansion will also provide deliveries into FGT. The proposed target in-service date is May 1, 2010. The Open Season expired in November 2007.

[REDACTED]. In September 2008, Transco filed its NGA 7c Needs Certificate Application with the FERC. The Certificate Application indicated that approval of the project by May 15, 2009 which would enable Transco to complete construction of the proposed facilities and begin providing service by May 1, 2010. In addition, the Certificate Application indicated that Transco executed PA's with PEF and Southern Company Services, Inc. for a total firm transportation service capacity of approximately 253,000 MMBtus per day. The project facilities consist primarily of 9,470 HP of gas fired compression and 2,400 feet of 30-inch diameter piping.

[REDACTED] to access needed competitively priced natural gas supply from the growing unconventional onshore supply being delivered to Station 85 through upstream pipeline infrastructure projects.

#### **Transco Mobile Bay South Phase II – Non-Binding Open Season**

**Open Season** – In January 2009, Transco announced that it is holding a Non-Binding Open Season for up to 550,000 MMBtus per day of year-round firm transportation service available from Transco's Station 85 Pool near Butler in Choctaw County, Alabama to the point of interconnection between Transco and Gulfstream in Coden, Mobile County, Alabama, under Transco's proposed "Mobile Bay South II Expansion". The proposed expansion will also provide deliveries into FGT. The proposed in-service for their expansion could be as early as May 2011. As part of its on-going efforts to evaluate potential options to access competitively priced and secure onshore natural gas from growing unconventional natural gas resources [REDACTED]

[REDACTED]. PEF continues to evaluate and monitor on-going developments associated with this potential expansion along with other expansion options as this project provides access to growing unconventional supply being delivered to Transco at Station 85 through pipeline infrastructure projects.

#### **Southeast Supply Header ("SESH") Expansion**

**Open Season** – In December 2008, SESH conducted a Non-Binding Open Season which ended on January 16, 2009. SESH conducted the Open Season to solicit interest in the remaining unsubscribed firm transportation capacity from SESH's original project and to determine how much additional interest may exist in the market for additional capacity. The target in-service date for any future expansion could be as early as mid-2011. As part of its on-going efforts to evaluate potential options to access competitively priced and secure onshore natural gas from growing unconventional natural gas resources [REDACTED]

[REDACTED] PEF continues to evaluate

and monitor on-going developments associated with this potential expansion along with other expansion options as this project provides access to growing unconventional supply being delivered to the Perryville area at or near Delhi, Louisiana.

### **CenterPoint Energy Gas Transmission (“CEGT”) – Carthage to Perryville (“Line CP”) Existing and Proposed Expansions**

CEGT began service in early 2007 and continues to gauge market interest in an additional expansion of its existing 1.5 Bcf per day, 42-inch Line CP pipeline. This pipeline accesses unconventional onshore gas supplies produced in North Central Texas (Barnett Shale) and from Tight Sands (Bossier Sands) production located in East Texas through the Carthage receipt points with delivery to SESH and Columbia Gulf. CEGT has successfully completed the first three phases of Line CP and continues to receive expressions of interest in incremental capacity. Based upon publicly available data, key shippers that signed up for capacity on this project include Cross Timbers Energy Services (XTO), EOG Resources, BP Energy, Samson Resources, and Chevron USA.

PEF is a direct beneficiary of participating shippers bringing onshore supply which delivers into PEF’s existing SESH firm transportation capacity at Perryville located in and around Delhi, Louisiana.

### **Gulf Crossing Pipeline a Boardwalk Pipeline Company (“Gulf Crossing”)**

Gulf Crossing is approximately a 1.7 Bcf per day capacity pipeline which is expected to be placed into service during the first quarter of 2009. This greenfield pipeline expansion project consists of approximately 357 miles of 42-inch pipe that accesses onshore natural gas supply from the Barnett and Caney/Woodford Shales (unconventional production) located in North Central Texas and Southeast Oklahoma. It can provide incremental gas to serve the Southeast U.S. markets (including Florida) by interconnecting with Transco at Station 85 in Choctaw County, Alabama and delivering into Transco’s Mobile Bay South Expansion Projects Phase I (filed) and Phase II (proposed). It also can deliver gas to SESH at the Perryville Hub located in Delhi, Louisiana. Based on publicly available data, key shippers that signed up for capacity on this project include Crosstex Gulf Coast Marketing, Ltd., Devon Gas Services, LP, and Enterprise Gas Marketing, LP.

PEF is a direct beneficiary of participating shippers bringing onshore supply which delivers into PEF’s firm transportation capacity on Transco’s Mobile Bay South Expansion and PEF’s SESH firm transportation capacity at the Perryville Hub located in and around Delhi, Louisiana.

### **Gulf South Pipeline a Boardwalk Pipeline - TX to Mississippi (“TX-MS”) Expansion**

The Gulf South TX-MS expansion project is approximately a 1.7 Bcf per day capacity pipeline which was placed into service during 2008. This greenfield pipeline expansion

project consists of approximately 242 miles of 42-inch pipe that accesses onshore natural gas supply primarily from the Barnett Shale, Haynesville Shale and Bossier Sands (unconventional onshore production) located in North Central Texas and Northern Louisiana. It can provide incremental gas to serve the Southeast U.S. markets by interconnecting with Transco at Station 85 in Choctaw County, Alabama delivering into Transco's Mobile Bay South Expansion Projects Phase I (filed) and II (proposed). It also can deliver gas to SESH at the Perryville Hub located in Delhi, Louisiana. Based upon publicly available data, key shippers that signed up for capacity on this project include Chesapeake Energy Marketing, Devon Gas Services, LP, EOG Resources, Inc., and Kaiser-Francis Oil Company.

PEF is a direct beneficiary of this expansion as participating shippers are bringing growing unconventional onshore supply to Perryville which will deliver into PEF's firm transportation capacity on Transco's Mobile Bay South Expansion via participating shipper's Gulf South SE expansion capacity and PEF's SESH firm transportation capacity at the Perryville Hub located in and around Delhi, Louisiana.

#### **Gulf South Pipeline SE Expansion**

The Gulf South SE expansion project is approximately a 1.9 Bcf per day capacity pipeline which is currently in-service. This greenfield pipeline expansion project consists of approximately 111 miles of 42-inch pipe that accesses onshore natural gas supply from the Perryville Hub, Gulf Crossing and Gulf South. It can provide incremental gas to serve the Southeast U.S. markets in the future by interconnecting with Transco at Station 85 in Choctaw County, Alabama delivering into Transco's Mobile Bay South Expansion Projects Phase I (filed) and Phase II (proposed) and Destin Pipeline through direct connections with the SE Expansion project. In addition it accesses both FGT and Gulfstream via existing interconnects on the legacy Gulf South pipeline system. Based upon publicly available data, key shippers that signed up for capacity on this project include Chesapeake Energy Marketing, EOG Resources, Inc., and Oneok Energy Services Company, LP.

PEF is a direct beneficiary of this expansion as participating shippers are bringing growing unconventional onshore supply which delivers into [REDACTED] via Gulf South's SE Expansion (discussed above) and through Gulf South's legacy system interconnects with FGT and Gulfstream that can access PEF's firm transportation capacity on those pipelines.

#### **Kinder Morgan's Mid-Continent Express Project**

The Mid-Continent Express expansion project is approximately a 1.5 Bcf per day capacity pipeline expandable by compression to approximately 1.8 Bcf per day which is targeted to be in-service in 2009. This greenfield pipeline expansion project consists of approximately 507 miles of 30-inch, 36-inch and 42-inch pipe that routes From Southeast Oklahoma, across Northeast Texas, Northern Louisiana, Central Mississippi

and into Western Alabama. It accesses growing unconventional onshore natural gas supply from the Barnett Shale, Caney/Woodford Shale and Haynesville Shale formations (unconventional onshore production) located in North Central Texas, Southeast Oklahoma and North Louisiana and will provide new secure and competitively priced onshore unconventional natural gas to serve the Southeast U.S. including Florida by interconnecting with Transco at Station 85 in Choctaw County, Alabama delivering into Transco's Mobile Bay South Expansion. Based upon publicly available data, key shippers that signed up for capacity on the Mid-Continent Express project include Chesapeake Energy Marketing and Newfield Exploration.

PEF is a direct beneficiary of participating shippers bringing onshore supply which delivers into PEF's firm transportation capacity on Transco's Mobile Bay South Expansion Phase I and potentially Phase II both previously discussed in our response to Question 26.

As a result of many of these expansion projects, [REDACTED]

[REDACTED] Other entities such as [REDACTED] have become shorter term suppliers by virtue of their commitment to become key shippers on some of the above expansion projects.

See Attachment No. 26-2.

27. Regarding unconventional natural gas production (shale gas, tight sands, etc.), please discuss in detail the expected industry factors and trends for the period 2009 through 2018. As part of this discussion, please include how these factors and trends will affect the company.

**Answer:** PEF is providing information that is in a large part based on public sources such as but not limited to company websites and FERC filings.

Unconventional production is expected to continue to grow over the planning horizon and expected to offset the decline of traditional production. To provide further background, the Energy Information Administration ("EIA") states in its Annual Energy Outlook 2009 Early Release that traditional offshore natural gas production in the U.S. declined from 4.6 Tcf in 1997 to 2.4 Tcf in 2007. Their outlook is that production levels will remain below 3 Tcf annually through 2018. Furthermore, conventional onshore natural gas production is projected to decline from 5.4 Tcf in 2007 to 3.8 Tcf in 2018. However, unconventional gas (shale gas, tight sands, and coalbed methane) which accounted for approximately 40% of the total 2007 U.S. production (9.2 Tcf) is projected to increase by 2.2 Tcf to 49% (11.4 Tcf) by 2018. (See Attachment Nos. 27-1 and 27-22) According to EIA's June 11, 2008 Energy in Brief, "Is U.S. natural gas production increasing?", Texas Barnett Shale has been driving the recent rapid growth in

unconventional natural gas. Some of the other active shale gas producing areas in the U.S. are the Woodford (Southeast Oklahoma), Fayetteville (Central Arkansas), Haynesville (East Texas and Northwest Louisiana) and Marcellus (Southwest Pennsylvania) shale formations. (See Attachment No. 27-3)

As a result of the increase in unconventional gas production, there have been several pipeline infrastructure projects proposed or initiated by companies to move production from growing unconventional natural gas from areas such as the Barnett, Woodford, Fayetteville and Haynesville Shales in East Texas, Oklahoma and North Louisiana, to interconnecting pipelines that can ultimately move the gas to the markets in the Northeast, Mid-Atlantic and Florida. These projects have provided excellent opportunities for PEF to access competitively priced, secure onshore unconventional supply. By participating in upstream pipeline expansion projects and contracting for supply from producers who are participating in unconventional gas production, PEF has been able to effectively execute a supply diversification strategy where PEF is able to procure competitively priced natural gas and significantly reduce PEF's dependence on offshore gas. This is an on-going strategy as the State of Florida's natural gas generation and usage continues to grow. Attachment No. 26-2 contains a simplified illustrative map of pipeline expansions accessing unconventional production which have provided PEF opportunities to access growing unconventional natural gas supply. A summary is provided below:

- CenterPoint Energy Gas Transmission placed in service a 1.5 (approximate) Bcf per day pipeline from Carthage to Perryville in 2007 and plans to expand to approximately 1.8 Bcf per day by 2009. PEF participated in the SESH project which provides access to growing unconventional natural gas supply that producers are moving to Perryville.
- SESH was placed in service in 2008 and has a capacity of approximately one (1) Bcf per day. It extends from the Perryville Hub and terminates at an interconnection with Gulfstream near Coden, Alabama. PEF participated in the SESH project which provides access to growing unconventional natural gas supply that producers are moving to Perryville.
- Boardwalk Pipeline Company is expected to place its 1.7 (approximate) Bcf per day Gulf Crossing pipeline that will interconnect with Transco Station 85 during the First Quarter of 2009 and its Gulf South East TX and MS combined with its Southeast Expansion pipeline (in-service 2008) brings 1.7 Bcf per day to Transco Station 85. [REDACTED]
- Kinder Morgan's Mid-Continent Express Project is planned to reach 1.8 Bcf per day by 2009 will route from Southeast Oklahoma and interconnect with Transco

Station 85. [REDACTED]

- Transco Mobile Bay South Phase I – plans to expand capacity by 0.25 Bcf per day to be available from Transco’s Station 85 Pool near Butler in Choctaw County, Alabama to points on its Mobile Bay Lateral as far south as the existing interconnect between Transco and Gulfstream near Coden in Mobile County, Alabama. The proposed target in-service date is May 1, 2010.

A key component of PEF’s procurement strategy over time is to access competitively priced, secure onshore supply. These trends have and will provide opportunities for PEF to continue to access competitively priced and secure onshore unconventional supply as its gas usage increases.

Finally, as with any long-term forecast or trends, a couple of caveats should be noted. Predicting the future growth of the unconventional natural gas growth is difficult and can be impacted by several factors over a long-term period such as, commodity price levels, production costs, capital spending budgets, and economic cycles. Based on the information available today from industry experts, unconventional production is expected to continue to be a growing percentage of the overall natural gas produced in the United States over the next decade and will offset expected declines in traditional production.

28. Regarding liquefied natural gas (LNG) imports to the United States, please discuss in detail the expected industry factors and trends for the period 2009 through 2018. As part of this discussion, please include how these factors and trends will affect the company.

**Answer:** PEF is providing information that is in a large part based on public sources such as but not limited to company websites and FERC filings.

LNG infrastructure is projected to experience growth globally and in the United States. In its March 2009 Short-Term Energy Outlook, EIA states that new LNG liquefaction capacity in Qatar, Indonesia, and Yemen could increase the amount of LNG supply available to be imported to the U.S. Secondly, EIA projects in its International Energy Outlook 2008 that by 2015 the capacity of LNG export facilities in Qatar will be 3.6 Tcf which is more than three (3) times its 2005 level of 1 Tcf.

In the United States, import and vaporization capability is projected to grow as existing terminals expand and new greenfield facilities are placed in service. According to the FERC as of February 2009 there are eight (8) existing U.S. LNG facilities with a total send out capacity of 11.5 Bcf per day (See Attachment No. 28-1). Existing capacity will increase as there is an additional 8 Bcf per day of capacity from several FERC approved new and expansion LNG projects that are currently under construction. This increase

does not include the 24.75 Bcf per day of federally approved U.S. projects that have not started construction and are in various stages (See Attachment No. 28-2). These developments may provide the United States more opportunities to import the growing worldwide supply of LNG. In addition to the Gulf Coast, there are currently two proposed projects off the coast of Florida based on publically available information from the FERC website (See Attachment No. 28-3). Lastly, there is one surface facility being proposed that was recently put on hold. In May 2007, PEF began taking supply from the Southern LNG Elba Island LNG facility near Savannah, GA having contracted for LNG supply and moving the supply into FGT off of the SNG Cypress Pipeline.

The future growth and trends of LNG supply and U.S. LNG imports is difficult to predict, and it can be impacted by several factors in both the U.S. and globally over a long-term period. These factors include U.S. commodity price levels, fundamentals of supply, storage levels, and economic cycles. Also, as global LNG supply grows and the U.S. will be competing with a global market for supply. To date, it does not appear that U.S. buyers have not made significant long-term LNG supply commitments relative to Asian and European markets that have generally committed to some longer-term LNG supply agreements. Likewise, the increased unconventional gas production is expected to increase supplies in the U.S. and could impact the overall need for LNG in the U.S. However, industry experts predict that due to the increase in LNG infrastructure outlined above, the overall long-term trend is for additional LNG supply to be imported in the U.S.

29. Please discuss in detail the company's plans for the use of firm natural gas storage for the period 2009 through 2018.

**Answer:** PEF executed agreements with [REDACTED]

[REDACTED] These gas storage projects were placed into service in May 2008. Both gas storage facilities are directly connected to pipelines such as FGT, Gulfstream, and SESH on which PEF currently holds firm transportation capacity.

[REDACTED] with greater supply reliability and price protection during weather events such as tropical storms and hurricanes and during pipeline operational flow orders.

PEF will continue to evaluate its firm gas storage capacity needs and expects firm gas storage to be a key component of its long-term natural gas transportation and supply strategy.

### C. Coal

30. Discuss the actions taken by the company to promote competition within and among coal transportation modes.

**FLORIDA PUBLIC SERVICE COMMISSION  
2009 TEN YEAR SITE PLANS  
SUPPLEMENTAL DATA REQUEST : RENEWABLE ENERGY**

Company Name: Progress Energy Florida, Inc.

April 1, 2009

Note: If a question is not applicable to your utility, please state "Not Applicable" or "N/A" as appropriate.

**I. Renewable Generation Resources:**

As used in the proceeding questions, the term "renewable energy" has the same meaning as used in Section 377.803, Florida Statutes. Please refer to the tables below when identifying fuel types, fuel codes, and generator codes.

<u>Fuel Types</u>	<u>Fuel Code</u>	<u>Examples</u>
Biomass	AB	➤ Agriculture By-Products, Bagasse, Straw, Energy Crops.
	MSW	➤ Municipal Solid Waste (Refuse).
	SLW	➤ Sludge Waste.
	WDS	➤ Wood / Wood Waste Solids (Peat, Railroad Ties, Utility Poles, Wood Chips, other solids).
	OBS	➤ Biomass Solids (all other solid biomass fuels not covered above)
Landfill Gas	LFG	➤ Landfill gas.
Water	WAT	➤ Hydro
Geothermal	GEO	➤ Geothermal (i.e., geothermal heat pumps).
Biofuels	WDL	➤ Wood / Wood Waste Liquids (Red Liquor, Sludge Wood, Spent Sulfite Liquor etc.).
	BL	➤ Black Liquor
	OBL	➤ Biomass Liquids (Ethanol, Fish Oil, Liquid Acetonitrile Waste, Tall Oil, Waste Alcohol, etc.).
	OBG	➤ Biomass Gases (Digester Gas, Methane, other gases).
Solar	SUN	➤ Photovoltaic and Thermal devices (i.e., solar-powered pool heaters).
		➤ Solar energy converted to electricity
Waste Heat	WH	➤ Waste heat from sulfuric acid manufacture
Wind	WND	➤ Wind Energy.
Other	OTH	➤ Any renewable not covered in above classifications. Please specify.

<u>Generation Types</u>	<u>Generation Code</u>
Combined Cycle - Steam Part	CA
Combined Cycle - Combustion Turbine Part	CT
Combined Cycle - Total Unit	CC
Compressed Air Energy Storage	CE
Combined Cycle Single Shaft	CS
Fuel Cell	FC
Combustion Turbine	GT
Hydraulic Turbine	HY
Hydraulic Turbine - Pumped Storage	PS
Internal Combustion Engine	IC
Not Available	NA
Other	OT
Photovoltaic Cells	PV
Steam Turbine	ST
Wind Turbine	WT

3. Please provide the following information for each purchased power agreement with a renewable generator. Please specify if capacity payments are made for each entry. For energy payment type, please include whether it is a fixed or levelized rate, as-available energy, at a specific avoided unit rate, or other mechanism. Also include the total payments made for capacity and energy, and the resulting cost of energy in cents per kilowatt-hour delivered in 2008.

**Answer:**

Vendor	Project Description	Fuel Type	Fuel Code	Generator Code	Firm Capacity (kW)	Capacity Payments? (Y or N)	Energy Payment Type	Total Payments (\$)	Average Cost (¢/kWh)
Biomass Gas & Electric #1	Gasification of waste wood	Biomass	WDS	CC	75,000	N	Fixed		
Biomass Gas & Electric #2	Gasification of waste wood	Biomass	WDS	CC	75,000	N	Fixed		
Horizon Energy	Gasification of MSW	Biomass	MSW	CC	60,000	N	Fixed		
Innovative Energy Group	Pyrolysis of an energy crop	Biomass	AB	CC	116,600	Y	Heat Rate		
Lake County	MSW mass-burn	Biomass	MSW	ST	12,750	Y	Avoided Unit Heat Rate		
Metro-Dade County	MSW mass-burn	Biomass	MSW	ST	43,000	Y	Avoided Unit Heat Rate		
Pasco County	MSW mass-burn	Biomass	MSW	ST	23,000	Y	Avoided Unit Heat Rate		
Pinellas County	MSW mass-burn	Biomass	MSW	ST	54,750	Y	Avoided Unit Heat Rate		
Wheelabrator Ridge	mass-burn	Biomass	WDS, tires, LFG	ST	39,600	Y	Avoided Unit Heat Rate		
Vision Power	Gasification of an energy crop	Biomass	AB	ST	40,000	Y	Avoided Unit Heat Rate		
				<b>Total</b>	<b>539,700</b>		<b>Total</b>		

Vendor	Project Description	Fuel Type	Fuel Code	Generator Code	Non-Firm Capacity (kW)	Capacity Payments? (Y or N)	Energy Payment Type	Total Payments (\$)	Average Cost (£/kWh)
SI Group	Mass-burn wood	Biomass	WDS	ST	8,000	N	As-Available		
PCS Phosphate	Sulfuric Acid Prod.	Waste Heat	WH	ST	43,000	N	As-Available		
				<b>Total</b>	<b>38,000</b>		<b>Total</b>		

4. Please provide the net energy for load percentage and annual retail sales percentage for the period 2003 through 2014.

Answer:

Percent Net Energy for Load	Actual						Projected					
	2003	2004	2005	2006	2007	2008	2009	2010*	2011*	2012*	2013*	2014*
Purchased Power Agreements	3.28%	3.11%	2.77%	3.04%	2.54%	2.03%	2.40%	3.03%	4.97%	6.70%	7.43%	7.55%
Utility Owned Generation	0.0000%	0.0001%	0.0001%	0.0001%	0.0002%	0.0002%	0.0002%	0.0003%	0.0003%	0.0003%	0.0004%	0.0004%
<b>Total</b>	<b>3.28%</b>	<b>3.11%</b>	<b>2.77%</b>	<b>3.04%</b>	<b>2.54%</b>	<b>2.03%</b>	<b>2.40%</b>	<b>3.03%</b>	<b>4.97%</b>	<b>6.70%</b>	<b>7.43%</b>	<b>7.55%</b>
Percent Annual Retail Sales	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Purchased Power Agreements	3.75%	3.68%	3.33%	3.55%	3.08%	2.51%	3.01%	3.81%	6.22%	8.56%	9.46%	9.32%
Utility Owned Generation	0.0000%	0.0001%	0.0001%	0.0002%	0.0002%	0.0003%	0.0003%	0.0003%	0.0004%	0.0004%	0.0005%	0.0005%
<b>Total</b>	<b>3.75%</b>	<b>3.68%</b>	<b>3.33%</b>	<b>3.55%</b>	<b>3.08%</b>	<b>2.51%</b>	<b>3.01%</b>	<b>3.81%</b>	<b>6.22%</b>	<b>8.56%</b>	<b>9.46%</b>	<b>9.32%</b>

\*Renewable generators yet to go commercial are not counted as firm capacity until defined contract milestones have been met, but are included above.