BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for increase in rates by Progress Energy Florida

Docket No. 090079-E1

Submitted for filing: March 20, 2009

DIRECT TESTIMONY
OF
SASHA WEINTRAUB

On behalf of Progress Energy Florida
In re: Petition for rate increase by Progress Energy Florida, Inc.
Docket No. 090079-EI

DIRECT TESTIMONY OF
SASHA WEINTRAUB

I. INTRODUCTION AND SUMMARY.

Q. Please state your name and business address.
A. My name is Sasha A. J. Weintraub. My business address is 410 South Wilmington Street, Raleigh, North Carolina, 27601.

Q. By whom are you employed and in what capacity?
A. I am employed by Progress Energy Carolinas, Inc. ("PEC") as Vice President Fuels and Power Optimization.

Q. What are your duties and responsibilities in that position?
A. I am responsible for the procurement of coal, natural gas, and fuel oil for the Progress Energy Florida, Inc. ("PEF" or the "Company") and PEC generation fleet. I am also responsible for portfolio management and short term power trading for both PEF and PEC. In addition, I am responsible for the Company’s coal, natural gas, and fuel oil price forecasts used for fuel filings and resource planning purposes in connection with the Company’s Ten Year Site Plan filing each year.

Q. Please describe your educational background and professional experience.
A. I have a Bachelor of Science ("BS") degree in Engineering from Rensselaer Polytechnic Institute, I have a Master's in Mechanical Engineering from Columbia University, and I have a Ph.D. in Industrial Engineering from North Carolina State University. From February of 2003 until June of 2005 I was the Director of Coal Marketing and Trading for Progress Fuels Corporation, a former subsidiary of Progress Energy. Before assuming my current position, I was the Director of Coal Procurement for PEF and PEC.

Q. Have you previously testified before the Florida Public Service Commission?

A. Yes. I have previously testified for PEF in a proceeding involving coal procurement for two of PEF's coal-fired units. I also testified for PEF in the Company's need determination proceeding for Levy Units 1 and 2.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain the Company's fuel price forecasts and inventory target levels.

Q. Have you prepared exhibits to your testimony?

A. Yes. I sponsor the following exhibits, which are attached to my prefiled testimony:

- Exhibit No. ___ (SAW-1), a list of the Minimum Filing Requirements (MFR) schedules I am sponsoring or co-sponsoring;
- Exhibit No. ___ (SAW-2), the Company's fuel price forecast;
- Exhibit No. ___ (SAW-3), the Company's fuel inventories;
Exhibit No. (SAW-4), a comparison of the Company’s fuel inventory levels to the Florida Public Service Commission (the “Commission”) guidelines; and

Exhibit No. (SAW-5), the Company’s 2005 actual coal inventory levels.

These exhibits are true and accurate.

Q. Are you sponsoring any Minimum Filing Requirements (MFRs)?
A. Yes, they are listed in Exhibit No. (SAW-1). I have reviewed them and they are true and correct, subject to their being updated in the course of this proceeding.

II. THE FUEL PRICE FORECAST

Q. Please describe the basic components of the Company's fuel price forecast.
A. The Company’s fuel price forecast includes the fuel types that PEF expects to utilize over the forecast period. Exhibit No. (SAW-2) shows the projected spot market commodity prices for 2010 for coal, oil, and natural gas. Different grades of coal and oil are used at different generating units, therefore the Company prepares separate forecasts for each grade. The delivered fuel price to each plant varies based on transportation costs to the site and the mix of contract and spot market purchases. The forecasted delivered prices to each plant are shown on MFR B-18.

Q. Exactly what type fuels are included in the forecast?
A. The forecast contains spot market commodity price projections for the
following fuels:

- Coal - 1.3% sulfur (2.1 lbs SO₂/MMBtu) and a weighted average of 0.7% and 2.9% sulfur (1.2 and 5.0 lbs SO₂/MMBtu)
- Residual/Heavy/No. 6 Oil - 1.0% and 1.34% sulfur (1.1 and 1.5 lbs SO₂/MMBtu)
- No. 2/Light/Distillate Oil - 0.0015 lbs SO₂/MMBtu and 0.5 lbs SO₂/MMBtu
- Natural Gas

Q. Turning now to the individual fuels included in the forecast, will you please explain why PEF's forecast reflects two different coal price projections?

A. PEF's forecast reflects different coal prices because the Company utilizes different grades of coal at its Crystal River Plant. Specifically, Crystal River Units 1 & 2 burn coal with an approximate 2.1 lbs. SO₂/MMBtu and Crystal River Units 4 & 5 burn coal with an approximate 1.2 lbs. SO₂/MMBtu. In the latter part of 2010, Crystal River Units 4 & 5 will be capable of burning higher sulfur coal (5.0 lbs. SO₂/MMBtu) due to the installation of wet scrubber flue gas desulfurization (FGD) systems. Different grades of coal are sold at different prices in the market. Thus, the Company must forecast prices for each of the different grades of coal it plans to utilize at its Crystal River Plant. The spot market commodity price projection shown for Crystal River Units 4 and 5 on Exhibit ___ (SAW-2) is the weighted average price for 2010 of the low and high sulfur coals.

Q. What factors are taken into account in developing the Company’s coal
price forecast?

A. The Company’s coal forecast is impacted by a variety of factors, including the source of the coal, the varying type and quality characteristics, forecasted burn requirements, price and volume commitments under existing contracts, the forecasted market and conditions for spot purchases, and transportation costs to the point of use.

Most of the coal currently consumed at PEF’s generating plants is mined in the Central Appalachian region and South America. In the future, the addition of wet scrubber FGD systems to comply with environmental regulations will allow the Company to further diversify its fuel portfolio and procure coal from other regions, such as the Illinois Basin. The Company calculates the volume of coal needed to fulfill the burn requirements at the Crystal River Units. The Company then reviews the price and volume commitments in its current coal contracts. If further volume is needed, the Company utilizes the market for spot purchases to fulfill this requirement. This analysis results in an overall commodity price forecast that includes the expected mix of contract and spot market coal. The Company also prepares a separate transportation price forecast for both water and rail transport. The delivered price of coal shown in the MFRs represents the sum of the commodity and transportation price forecasts.

Q. Focusing next on oil prices, please explain why several different prices have been projected in the Company’s study for oil.

A. The Company procures and burns different qualities of oil. The 1.0% sulfur residual oil is currently used by the Company at the Suwannee River steam
plants. The Anclote steam plant can use up to an annual maximum of 1.5% sulfur residual oil. The different grades of No. 2 oil are used at PEF's combustion turbines for generation and at steam plants for start-up. Like coal, different grades of oil are sold at different market prices based on type and quality. Accordingly, the Company forecasts each of them separately.

Q. Other than the type of oil, what are the key assumptions that affect the price forecast for oil?

A. The projected oil prices are based on estimates of the contract prices for oil, spot prices of oil, and the cost of delivery to PEF's plant locations. The fuel oil prices all assume bulk, waterborne deliveries to the West Coast Florida Terminal used by the Company indexed to U. S Gulf Coast market prices. As in the case of coal, transportation costs to individual plants are forecasted separately and are added to the commodity prices to produce a delivered price forecast for each site.

Q. How is the price of natural gas forecasted?

A. The natural gas forecast is based on the contract structures and estimates of spot market prices expected to be in effect during the forecast period for the cost of the fuel into the pipelines which deliver it into Florida. Transportation costs, including fixed demand charges and variable transportation charges to specific plants, are forecasted separately.

III. FUEL INVENTORIES

Q. Which of these fuels does the Company keep in inventory?
A. As shown in Exhibit No. ___ (SAW-3), the fuels currently maintained in inventory are coal, natural gas, residual oil and No. 2 oil. The Company also maintains nuclear fuel in inventory, as reflected in MFR B-16.

Q. What is the objective of the Company's fuel inventory target levels for coal, natural gas, residual oil, and No. 2 oil?

A. The Company's objective in establishing fuel inventory target levels is to maintain fuel inventories that ensure a competitively priced, reliable and secure fuel supply to support the economic dispatch and operation of the Company's generation fleet. In determining adequate inventory levels, the Company considers several factors, including:

1. Projected system fuel requirements and costs based on the system constraints and estimated demand;
2. Fuel storage, transportation source and flexibility, and fuel handling capabilities;
3. Lead times to secure supply and deliver to on-site and off-site inventory locations under different market and operating conditions;
4. Potential delays and interruptions in fuel supply caused by events outside the control of the Company; and,

Q. Would you describe generally the procedure followed in establishing the Company's fuel inventory target levels?

A. Using the factors identified above, target inventory levels are evaluated for each fuel type both on a total system basis and for each generating facility. Actual
inventory levels are monitored daily. Inventory targets are reviewed and
debated as necessary when warranted by changes in unit availability, dispatch
economics, and transportation or logistics constraints. The target levels are
used as inputs to the Company's financial model for the projection of fuel
expense and inventory balances.

Oil Inventory

Q. How were the oil inventory target levels identified in this case developed?
A. The inventory target level for each generating plant that uses oil as a primary or
back-up fuel was established by the process that I have described. In
establishing these targets, the Company also considered the storage capacity at
each plant site, the source of the fuel oil supply, the amount and location of
off-site storage leased by PEF, expected plant burn requirements, the specific
delivery modes used to deliver fuel oil to each plant, and fuel supply risks that
the Company cannot control. Based upon this analysis, the Company
established the inventory target levels for oil that are recorded in the MFRs.
The system target levels are also shown by oil type in Exhibit No. ___ (SAW-3).

Q. What is PEF’s inventory plan for residual oil?
A. The Company’s residual oil inventory plan is to maintain the level of oil
necessary to provide for the reliable and economic operation of its generating
units. Generation facilities that run on residual oil are critical to maintain the
Company’s overall system reliability. The Company projects an average of
approximately 745,000 barrels of residual oil in inventory in 2010, as reflected
in Exhibit No. ____ (SAW-3). This amount is made up of approximately
650,000 barrels (18.2 days at full burn) for Anclote and approximately 95,000 barrels (14.9 days at full burn) for Suwannee. These amounts are consistent with the inventory levels the Company has been maintaining for Anclote and Suwannee; however, the system-wide residual fuel inventory for 2010 is lower than recent levels due to the repowering of the Bartow oil-fired plant with natural gas by June 1, 2009.

Q. What is PEF’s inventory plan for No. 2 fuel oil?

A. The Company’s No. 2 fuel oil inventory plan is to maintain the level of oil necessary to provide reliable supply for its peaking facilities and adequate back-up fuel supply for its combined cycle (“CC”) units. The Company has added several new intermediate CC units to the system since the Company’s last fuel inventory levels were approved, including the repowered Bartow Plant which is scheduled for commercial operation by June 1, 2009. These units run mostly on natural gas, but use No. 2 oil as a back-up fuel.

The Company projects to average approximately 1,106,700 barrels of No. 2 oil inventory in 2010, as reflected in my Exhibit No. ___ (SAW-3). Approximately 60% to 65% of the inventory (660,000 to 720,000 barrels) will be stored at the Company’s ten separate CT peaking unit sites. An additional 218,000 barrels will be stored at the Hines and Bartow CC unit sites as back-up fuel to natural gas. The Company projects storing approximately 15,000 barrels at the Crystal River and Anclote sites as start-up fuel for the steam generators. Finally, 150,000 to 210,000 barrels will be stored at the Martin Storage facility, which is a storage facility for which PEF contracts at the Port of Tampa. The total amount of No. 2 fuel oil inventory is consistent with the amount the
Company has been maintaining, when adjusted for the additional No. 2 back-up fuel required for the repowered Bartow plant.

Q. Why is it important that the Company maintain adequate oil inventory at each separate plant site?

A. PEF’s oil peaking units are critically important to maintain reliable operations during peak demand periods. They are also necessary to provide generation when unplanned supply curtailments occur and unforeseen generation events impact the Company’s other baseload and intermediate generation units. For example, unscheduled outages at either of the major coal-fired units, the nuclear unit, or the large combined cycle natural gas facilities can cause significant variations in the amount of fuel oil burned. In addition, interruptions to the natural gas supply and/or higher than expected load requirements could result in the need to run the oil peaking units longer than expected.

Each site must have adequate onsite storage to ensure sufficient fuel supply during these times of need. Because the units are in different geographic locations, PEF’s inventory plan must address inventory needs and storage capacity at each generating site. Inventory is not easily moved between CT unit locations. At the Intercession City site, PEF must maintain an inventory of two different grades of No. 2 fuel, since fuel oil is not interchangeable between all units at the site due to quality specifications and environmental permit requirements.

Typically it takes two to three weeks from the moment PEF places a delivery order for No. 2 fuel oil to the moment the oil reaches the site. Any number of events can interrupt the delivery of light oil. In particular, barge
delays due to potential or active storms, rough seas, and refinery outages can all affect product availability. For example, during the summer of 2008, Hurricanes Gustav and Ike resulted in the temporary closing of several refineries and ports and the interruption of PEF’s normal shipments of No. 2 oil. Without on-site storage, PEF would not be able to ensure the reliable operation of its peaking units during normal and contingency situations.

Q. Could PEF simply move fuel oil from one site to another if shipments to a particular site were delayed?

A. No. Moving fuel oil between locations is not operationally practical or prudent. For example, the Company maintains approximately 240,000 barrels of No. 2 oil inventory at the Intercession City combustion turbine site. PEF cannot rely on that inventory to readily fuel the CT units at Shady Hills, which are located some 85 miles away. The fuel oil would have to be trucked from Intercession City to Shady Hills, which takes time and money. Further, Intercession City has only one connection available to load trucks. Assuming that the Intercession City units did not need the oil to operate, and that trucks were available, it would take 274 truck loads to provide the 48,000 barrels to Shady Hills. At the rate of one truck per hour loading 24 hours a day, seven days per week, it would take 11 days to provide Shady Hills with 51 hours (or 2.1 days) of light oil supply. When the PEF Energy Control Center notifies the CT unit operators to begin generating electricity, these units must be ready at that moment and cannot wait for a shipment of inventory from another site. Thus, a sufficient amount of No. 2 oil inventory at each CT site is imperative.
Q. Why does the Company maintain an inventory of No. 2 oil at the Port of Tampa?

A. PEF maintains storage at the Port of Tampa to reduce the significant logistical risk and time lag that exist for the Company in procuring and shipping No. 2 oil to its units when needed. Supplying fuel oil to PEF’s plants has inherent risks due to the way the product is procured and transported to the state and ultimately to PEF’s generating sites. The offsite storage provides a significant benefit to PEF as it gives the Company much greater flexibility to secure No. 2 oil in advance and to schedule deliveries from suppliers at more regular intervals or with broader delivery windows. The availability of the off-site inventory increases supply security and reliability by allowing PEF to buy fuel oil over time, and to effectively schedule fuel deliveries to its generation fleet from the Port of Tampa inventory without being concerned with the timing of any one barge or series of barge shipments. This flexibility is even more important during extreme load events or during supply disruptions, when PEF could otherwise face both supply risks and transportation risks and delays.

The need for and value of this storage was evident after PEF struggled in 2005 to get and maintain sufficient fuel oil supply to our units in the face of significant delays caused by hurricanes, higher loads, and unexpected and unforeseen unit derates that put greater demand on our peaking units. In addition, during the 2008 hurricanes, when the refineries in the Gulf of Mexico closed, it was difficult to procure supplies of oil.

In addition to these supply and delivery risks, forecasting fuel oil burns at peaking units is more difficult than forecasting other fuels, such as coal and natural gas, which are used at base-load and intermediate plants. As such, PEF
must be prepared to deliver large quantities of fuel oil at any time to respond to load variation, unforeseen unit outages and other fuel events. The inventory of No. 2 oil at the Port of Tampa meets this objective.

Q. How does the State of Florida and the Company obtain its fuel oil?

A. According to the Department of Environmental Protection's Florida Energy Plan released in January 2006, the State of Florida depends almost exclusively on other states and nations for supplies of oil and ranks first among all states in the amount of electricity produced from oil. Florida receives approximately 98 percent of its fuel oil by sea via barge and tanker ships. Fuel oil is supplied by domestic and international refineries as well as the pipeline spur in Bainbridge, Georgia. PEF purchases its fuel oil from suppliers who have access to inventories, refineries, and terminals in the Gulf Coast, Midwest and West and transport the fuel oil to Florida and ultimately to PEF generation facilities via barge, pipeline, rail, and truck.

With respect to managing and meeting its No. 2 oil system generation and inventory requirements, PEF purchases No. 2 oil primarily under term agreements based on published market based indexes and utilizes leased off-site inventory at the Port of Tampa for delivery of No. 2 oil to its plant facilities by barge, pipeline, rail, and truck.

With respect to residual fuel oil, the Anclote plant is supplied via a 33.5 mile oil pipeline which originates from dedicated inventory located at the Bartow plant site. The Bartow plant site has unloading facilities where residual fuel oil is delivered via barges which originate from the Gulf Coast. Residual fuel oil is delivered to the Suwannee plant by truck deliveries from terminals.
located in Florida and by rail from sources outside the state.

Q. What impact do these fuel supply arrangements have on PEF's fuel inventory management?

A. Fuel oil deliveries must be managed and arranged in advance given the relatively long lead times to obtain the fuel supply and transport it to PEF's facilities. In addition, PEF faces significant risks to the timely delivery of fuel oil. These include rail congestion, strikes, flooding, fogs, river flooding, tropical storms, hurricanes, refinery outages, and equipment breakdowns. All of these factors can increase the time from when an order is placed for delivery of fuel oil to when it reaches the site. The farther the supply point is from the delivery point, or the more variables that exist, the longer the time period could be for delivery. As noted above, barge shipments were significantly impacted as a result of the hurricanes in 2005. This also occurred during the hurricanes in 2008. In addition, the amount of fuel oil that is available can be impacted as a result of sustained refinery outages in the Gulf Coast.

Q. How do the residual and No. 2 oil inventory target levels compare with the Commission's guidelines established in Order No. 12645 in Docket No. 830001-EU?

A. As can be seen in Exhibit No. ___ (SAW-4), PEF's residual and No. 2 oil inventory targets exceed the guidelines.

Q. Please explain why the residual and No. 2 oil inventory levels exceed the guidelines.
A. For all the reasons discussed above, sound fuel management practices require PEF to maintain oil inventory levels that exceed the 1983 guidelines. The factors supporting the fuel inventory levels above the guidelines include:

- the difficulty in predicting fuel oil needs due to the fact that oil-fired combustion turbine units are called on both during periods of peak demand and in the event of unplanned outages or derates of intermediate or baseload units;
- the diverse geographic location of the generating sites, and the impracticality of transferring fuel between those sites, which necessitates maintaining inventory at a variety of locations;
- the fact that units at a large generating site may have different fuel quality requirements, which requires the Company to maintain inventories of multiple grades of fuels at a single site;
- the relatively long lead time to obtain fuel supplies or to replenish inventories due to the fact that PEF, like other Florida utilities, must import virtually all of its fuel oil from sources outside the State; and
- the risk of supply curtailments or transportation delays posed by hurricanes and tropical storms which can impact both PEF's service territory as well as fuel handling facilities along the Gulf coast.

If PEF fails to maintain fuel oil inventories at the planned levels, it exposes the Company and its customers to fuel cost, operations, and reliability risks. These risks include buying much more expensive oil, running out of fuel oil prior to shipments arriving, buying more expensive purchased power, and putting the power grid at greater risk due to fuel shortages. The Company needs fuel
inventory levels above the guideline amounts not only to support the projected
burn levels, but also to effectively manage a secure and reliable supply of fuel
for normal and contingency circumstances.

Q. **Is it speculative to plan for the contingency events you describe?**

A. Absolutely not. Experience shows how critical the steam and peaking units,
and thus the oil inventory levels, can be. In 2005, the effects of Hurricanes
Katrina, Rita, and Wilma disrupted coal barge shipments into Crystal River and
decreased the supply of natural gas from the Gulf of Mexico. In addition,
because these storm events interrupted the delivery of oil shipments to the
various oil plants, PEF relied solely on on-site inventory for days. These fuel
supply disruptions were coupled with higher load requirements due to warmer
weather, as well as an unexpected de-rate at Crystal River 5, a coal-fired unit.
The combination of these events resulted in the inventory levels for Anclote
dropping to 6.4 days (based on the units running at full load). After these
events, the Company decided to target, and has generally targeted to maintain,
an inventory level of approximately 18 days of full burn for the Anclote plant.

To further illustrate this risk, if there are prolonged natural gas
curtailments and/or fuel oil delivery delays, PEF may have to solely rely on its
No. 2 fuel oil inventory at its large combustion turbine sites and at its
intermediate natural gas generation sites. If this were to occur, the Intercession
City, Debary and Hines sites, which maintain PEF’s largest on-site inventories,
have on average only 104 hours of inventory, meaning those units could only
operate 4.3 days. It is thus imperative for the Company to have sufficient
inventory levels of oil to adequately protect its ratepayers in the event of supply
interruptions.

**Coal Inventory**

**Q.** How does PEF develop its coal inventory levels?

**A.** PEF uses its fuel inventory objectives and procedures to maintain coal inventories at optimum levels consistent with operational and financial considerations. For coal inventory, additional considerations include potential supply problems with mining sources, barge transportation, and rail transportation. The storage capacity available near New Orleans (International Marine Terminal or “IMT”) and at the United Bulk Terminal (“UBT”) is also a consideration when evaluating coal inventories at Crystal River. In addition, the Crystal River coal inventory levels are affected by the risk that hurricanes and tropical storms in the Gulf of Mexico pose to the supply of coal to the site.

**Q.** Can you provide any specific examples to illustrate the impact that hurricanes can have on coal inventory levels at PEF?

**A.** Yes. The 2005 hurricane season, which I described above in connection with oil inventories, also severely impacted coal inventories at Crystal River, where all PEF’s coal-fired generating units are located. Coal can be delivered by rail or barge to Crystal River, but the majority of coal is delivered by barge. Domestic barge coal comes down the Mississippi River on river barges, and is then loaded onto Gulf barges at one of two terminals for shipment across the Gulf of Mexico. All the coal PEF purchases from South America are shipped across the Gulf of Mexico as well.

During 2005, hurricanes in the Gulf of Mexico prevented coal barges...
from being delivered into Crystal River, causing inventory levels at Crystal River to drop significantly. Generally the Company targets coal inventory levels equal to 45 days of running the plants at full capacity. As can be seen in Exhibit No. __ (SAW-5), by December 2005, the Company’s inventory levels dropped to 22 days for all four Crystal River units. In the last four months of the year, PEF burned more coal than was delivered to the site.

Q. Has the Company seen any interruptions in coal deliveries since 2005?
A. Yes, the summer of 2008 was particularly challenging in terms of obtaining timely coal shipments. First, an oil spill in the Mississippi River interrupted shipments of barge coal. Then Hurricanes Gustav and Ike, while they fortunately did not directly impact PEF’s service territory, did prevent barges from crossing the Gulf of Mexico. In addition, congestion on the railroads can also interrupt or delay coal deliveries. In September 2008, coal inventory levels at Crystal River fell to 22 days (at full burn), as compared to the target of 45 days.

Q. What is the Company’s projected coal inventory for 2010?
A. For 2010, the Company projects to average 360,000 tons of coal inventory at Crystal River 1 & 2, 600,000 tons of coal inventory at Crystal River 4 & 5, and 827,200 tons of coal either in transit or at off-site storage, as reflected in my Exhibit No. __ (SAW-3).

Q. How do the coal inventory target levels compare with the guideline established in Order No. 12645 in Docket No. 830001-EU?
A. As can be seen in Exhibit No. ___ (SAW-4), PEF's coal inventories exceed the guideline established in 1983. The on-site inventory levels are consistent with the target of 45 days at full burn that we have attempted to maintain since our experience with supply interruptions during the 2005 hurricane season. The off-site inventories are larger than we have maintained in recent years. The increase in off-site inventories is required to support fuel switching to higher sulfur coals, such as Illinois Basin coal, in 2010 in response to the installation of scrubbers at Crystal River Units 4 & 5. The Company will begin building an off-site inventory of higher sulfur coal in 2009. At the same time, we need to maintain an inventory of lower sulfur coal to support plant operations until the scrubbers have been installed and tested, and the change-over to higher sulfur coal can be completed in late 2010.

Natural Gas Inventory

Q. Is there a target inventory level for natural gas in the Commission's guidelines established in Order No. 12645 in Docket No. 830001-EU?

A. No, there is no Commission guideline for natural gas inventory levels.

Q. What natural gas inventory does the Company maintain?

A. As shown on Exhibit No. ___ (SAW-3), the Company maintains a total of 1,250,000 MMBtu’s of contracted natural gas inventory. This contracted for inventory level was established in accordance with the Company’s objectives that I have previously described. The natural gas inventory level is represented by contracts that began in May of 2008, in which PEF leases natural gas storage capacity from two companies for a total of five years. The first contract is with
Bay Gas Storage Company for high deliverability natural gas storage from an onshore salt cavern facility in Mobile, Alabama with capacity of 500,000 MMBtu’s. The second contract, with SG Resources Mississippi, L.L.C. (“SGR”), permits PEF to store up to 750,000 MMBtu’s at SGR’s onshore salt cavern facility in Greene County, Mississippi.

Q. What are the reasons to maintain an inventory of natural gas?

A. PEF contracted for this natural gas storage for a few key reasons. First, PEF has a growing portfolio of natural gas-fired generation. Approximately 47 percent of actual generation from PEF’s owned generation in 2010 is expected to come from combined cycle or combustion turbine units fueled by natural gas. Thus it is increasingly important that PEF has a secure and reliable natural gas supply to support its natural gas generation needs. Diversifying its flowing supply and providing for back-up are both essential components of the Company’s strategy to meet this need. The contracted storage will increase the reliability of gas supply by providing backup supply in emergency conditions. For example, PEF withdrew gas from storage to meet system needs when normal gas supplies were disrupted by hurricanes in 2008. Under the storage contracts, PEF has the capability to withdraw the storage gas at the rate of 125,000 MMBtu/day over a 10-day period. This can meet a portion of the Company’s natural gas requirements when supplies are curtailed. Second, natural gas storage can be used to manage price risk. For example, because PEF has natural gas in storage, it may be able to minimize fuel costs by utilizing storage gas versus buying from the market when the market price is higher than its average cost of gas in storage. Finally, the storage capacity can
provide PEF more opportunities to manage daily and monthly pipeline imbalances.

Q. In your opinion, are PEF’s projected fuel inventory levels appropriate?
A. Yes. For all the reasons I have discussed, I believe that maintaining these fuel inventory levels is reasonable and prudent, and in the best interest of the Company and its ratepayers.

Q. Does this complete your testimony?
A. Yes, it does.
<table>
<thead>
<tr>
<th>Schedule</th>
<th>Schedule Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-16</td>
<td>Nuclear Fuel Balances</td>
</tr>
<tr>
<td>B-18</td>
<td>Fuel Inventory by Plant</td>
</tr>
<tr>
<td>G-6</td>
<td>Interim Fuel Inventory by Plant</td>
</tr>
</tbody>
</table>
## COAL COMMODITY PRICE PROJECTIONS

<table>
<thead>
<tr>
<th></th>
<th>C.R. 1&amp; 2 (12,000 Btu/lb)</th>
<th>C.R. 4&amp; 5 (11,680 Btu/lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>92.20</td>
<td>85.10</td>
</tr>
<tr>
<td></td>
<td>Residual Fuel Oil</td>
<td>Light Oil</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>(6.510 MMBtu/Bbl)</td>
<td>(5.796 MMBtu/Bbl)</td>
</tr>
<tr>
<td></td>
<td>1.1 lbs SO2/MMBtu</td>
<td>0.5 lbs SO2/MMBtu</td>
</tr>
<tr>
<td></td>
<td>1.5 lbs SO2/MMBtu</td>
<td>0.0015 lbs SO2/MMBtu</td>
</tr>
<tr>
<td>2010</td>
<td>88.96</td>
<td>127.78</td>
</tr>
<tr>
<td></td>
<td>87.52</td>
<td>124.73</td>
</tr>
</tbody>
</table>
NATURAL GAS HENRY HUB
COMMODITY PRICE PROJECTIONS

$/MMBtu

<table>
<thead>
<tr>
<th>Year</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>9.35</td>
</tr>
</tbody>
</table>
FUEL INVENTORY TARGET LEVELS 2010

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Coal CR1 &amp;2</td>
<td>360,000 Tons</td>
</tr>
<tr>
<td>2) Coal CR 4&amp;5</td>
<td>600,000 Tons</td>
</tr>
<tr>
<td>3) Off-Site/In Transit Coal</td>
<td>867,200 Tons</td>
</tr>
<tr>
<td>4) Heavy Oil</td>
<td>745,000 Bbls</td>
</tr>
<tr>
<td>5) Light Oil (inc. off-site)</td>
<td>1,106,700 Bbls</td>
</tr>
<tr>
<td>6) Natural Gas Off-Site Storage</td>
<td>1,250,000 MMBtu</td>
</tr>
</tbody>
</table>
COMPARISON OF FULLY ADJUSTED FUEL INVENTORY VERSUS FPSC GUIDELINES

Coal
FPSC Guideline: 90 days projected burn: 1,382,000 tons based on 2010 projected burn
Progress Energy Florida Target: 1,827,200 tons

Residual/Heavy/No. 6 Oil
FPSC Guideline: 45 days at projected burn: 231,000 barrels based on 2010 projected burn
Progress Energy Florida Target: 745,000 barrels

No. 2/Distillate/Light Oil
FPSC Guideline: 30 days burn at the highest average monthly rate during the most current and five year period: 301,743 barrels (8/05)
Progress Energy Florida Target: 1,106,700 barrels
### 2005 INVENTORY PLAN (ACTUAL) - CRYSTAL RIVER 1&2 AND 4&5

<table>
<thead>
<tr>
<th>PLANT:</th>
<th>Jan 05</th>
<th>Feb 05</th>
<th>Mar 05</th>
<th>Apr 05</th>
<th>May 05</th>
<th>Jun 05</th>
<th>Jul 05</th>
<th>Aug 05</th>
<th>Sep 05</th>
<th>Oct 05</th>
<th>Nov 05</th>
<th>Dec 05</th>
<th>2005 Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CR 1&amp;2</strong></td>
<td>175,773</td>
<td>129,165</td>
<td>197,667</td>
<td>184,416</td>
<td>164,844</td>
<td>192,599</td>
<td>145,877</td>
<td>147,089</td>
<td>176,010</td>
<td>193,752</td>
<td>196,772</td>
<td>208,593</td>
<td>2,115,557 Sum</td>
</tr>
<tr>
<td><strong>Burn</strong></td>
<td>231,801</td>
<td>112,249</td>
<td>166,506</td>
<td>166,624</td>
<td>190,770</td>
<td>198,852</td>
<td>185,279</td>
<td>205,643</td>
<td>126,031</td>
<td>179,036</td>
<td>168,804</td>
<td>169,041</td>
<td>2,101,504 Sum</td>
</tr>
<tr>
<td><strong>Ending Inventory</strong></td>
<td>31</td>
<td>30</td>
<td>25</td>
<td>22</td>
<td>26</td>
<td>27</td>
<td>33</td>
<td>41</td>
<td>34</td>
<td>32</td>
<td>27</td>
<td>22</td>
<td>26 Avg</td>
</tr>
<tr>
<td><strong>Days Inv @ 100%</strong></td>
<td>342,742</td>
<td>327,065</td>
<td>234,137</td>
<td>302,021</td>
<td>343,967</td>
<td>328,840</td>
<td>396,403</td>
<td>396,473</td>
<td>341,916</td>
<td>364,160</td>
<td>377,405</td>
<td>375,978</td>
<td>4,133,136 Sum</td>
</tr>
<tr>
<td><strong>Repts (Rtie Tns Undr Ctrcl)</strong></td>
<td>25</td>
<td>24</td>
<td>29</td>
<td>32</td>
<td>35</td>
<td>34</td>
<td>30</td>
<td>34</td>
<td>29</td>
<td>26</td>
<td>22</td>
<td>29 Avg</td>
<td></td>
</tr>
<tr>
<td><strong>Ending Inventory</strong></td>
<td>618,515</td>
<td>453,230</td>
<td>431,864</td>
<td>486,437</td>
<td>508,841</td>
<td>521,439</td>
<td>542,280</td>
<td>545,652</td>
<td>520,928</td>
<td>557,912</td>
<td>577,177</td>
<td>554,571</td>
<td>6,246,096 Sum</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>441,316</td>
<td>391,949</td>
<td>505,183</td>
<td>500,396</td>
<td>571,178</td>
<td>514,158</td>
<td>540,752</td>
<td>600,859</td>
<td>523,764</td>
<td>480,281</td>
<td>504,083</td>
<td>491,400</td>
<td>6,065,341 Sum</td>
</tr>
<tr>
<td><strong>Burn</strong></td>
<td>540,855</td>
<td>479,054</td>
<td>552,933</td>
<td>566,892</td>
<td>629,229</td>
<td>622,298</td>
<td>620,758</td>
<td>676,055</td>
<td>678,861</td>
<td>601,270</td>
<td>528,181</td>
<td>435,019</td>
<td>577,658 Avg</td>
</tr>
<tr>
<td><strong>Repts (Rtie Tns Undr Ctrcl)</strong></td>
<td>27</td>
<td>24</td>
<td>28</td>
<td>28</td>
<td>31</td>
<td>31</td>
<td>34</td>
<td>34</td>
<td>30</td>
<td>28</td>
<td>22</td>
<td>29 Avg</td>
<td></td>
</tr>
<tr>
<td><strong>Ending Inventory</strong></td>
<td>79,554</td>
<td>24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Days Inv @ 100%</strong></td>
<td>34</td>
<td>32</td>
<td>27</td>
<td>22</td>
<td>26</td>
<td>22</td>
<td>28</td>
<td>30</td>
<td>26</td>
<td>22</td>
<td>26</td>
<td>22</td>
<td>26 Avg</td>
</tr>
</tbody>
</table>