### State of Florida



# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-0850

### -M-E-M-O-R-A-N-D-U-M-

**DATE:** August 3, 2006

**TO:** Director, Division of the Commission Clerk & Administrative Services (Bayó)

**FROM:** Division of Economic Regulation (Lester, Colson, Matlock, Von Fossen,

Slemkewicz)

Office of the General Counsel (Bennett, Keating)

**RE:** Docket No. 060362-EI – Petition to recover natural gas storage project costs

through fuel cost recovery clause, by Florida Power & Light Company.

**AGENDA:** 08/15/06 – Regular Agenda – Proposed Agency Action – Interested Persons May

Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Deason

CRITICAL DATES: None

**SPECIAL INSTRUCTIONS:** None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\060362.RCM.DOC

## **Case Background**

On April 28, 2006, Florida Power & Light Company ("FPL" or "Company") petitioned the Commission to recover natural gas storage project costs through the fuel cost recovery clause. The gas storage project is the MoBay Gas Storage Hub (MoBay) that is to be built and operated by Falcon Gas Storage, Inc.

FPL entered into a Firm Storage Precedent Agreement (the "Precedent Agreement") with MoBay on April 1, 2006. The gas storage facility is scheduled to go into service between December 31, 2006 and July 1, 2008. FPL included in its petition the Precedent Agreement, an affidavit from Gerard Yupp, who is FPL's Director of Wholesale Operations in its Energy

Marketing and Trading Division, and copies of a slide presentation by MoBay. FPL requested confidential treatment for some of the gas storage project costs and for parts of the Precedent Agreement.

In analyzing this case, staff has reviewed the Company's filing, met with the Company, reviewed written responses to staff data requests, and reviewed all confidential information filed in this docket. Staff has also reviewed prior Commission orders regarding recovery through the fuel clause of transportation charges and of hedging plans designed to manage the risks associated with fuel price volatility.

The Commission has jurisdiction pursuant to Chapter 366, including Section 366.06, Florida Statutes. The Commission has long recognized that "the costs of moving fuel to fuel storage locations and terminals are subject to fluctuation and accordingly recoverable through the fuel clause." Order No. 14546, dated July 8, 1985, in Docket No 850001-EI-B, <u>In re: Cost Recovery Methods</u> for Fuel Related Expenses.

The Commission has created a framework and direction to review utilities' physical and financial hedging projects which are recoverable through the fuel and purchased power cost recovery clause. In Order No. PSC 02-1484-FOF-EI, dated October 30, 2002, in Docket No. 011605-EI, In Re: Review of investor-owned electric utilities' risk management policies and procedures ("Hedging Order"), the Commission adopted a resolution of issues which requires investor-owned utilities to annually submit risk management plans and to report risk management activities. Each year the IOUs file their hedging plan as part of the fuel docket. Each IOU is:

authorized to charge/credit to the fuel and purchased power cost recovery clause its non-speculative, prudently-incurred commodity costs and gains and losses associated with financial and/or physical hedging transactions for natural gas, residual oil, and purchased power contracts tied to the price of natural gas.

Order No. PSC-02-1484-FOF-EI, at p. 5.

The Commission audits the costs submitted as part of the fuel clause.

FPL is requesting approval of its natural gas storage agreement with MoBay and approval of its cost recovery methodology for storage costs through the fuel clause. Additionally, if the Commission approves recovery of inventory carrying costs for MoBay, FPL is seeking approval of similar treatment for the carrying costs associated with its existing gas storage arrangement with Bay Gas Storage, Ltd. (Bay Gas).

## **Discussion of Issues**

<u>Issue 1</u>: Should the Commission approve FPL's petition to recover natural gas storage project costs through the fuel adjustment clause?

**Recommendation**: Yes, in part. (1) The Commission should approve FPL's petition to recover gas storage project cost for the monthly storage reservation charge, the injection/withdrawal charges, and the monthly insurance charge through the fuel adjustment clause. (2) The Commission should allow FPL to recover the carrying cost of the gas inventory through the fuel adjustment clause until the expiration of the current base rate stipulation. At that time, the gas inventory should be considered a base rate item and the carrying cost should no longer be eligible for recovery through the fuel adjustment clause. (3) The Commission should not allow FPL to recover the cost of base gas for the project as a one-time charge to the fuel adjustment clause. Instead, the base gas should be recorded as a regulatory asset and be amortized over the term of the storage agreement to the fuel adjustment clause. In addition, a return on the unamortized balance of the base gas should be recovered through the fuel adjustment clause until the expiration of the current base rate stipulation. At that time, the return on the unamortized balance of base gas will be considered a base rate item and will no longer be eligible for recovery through the fuel adjustment clause. When FPL is compensated, either through exchange or sale, for the base gas at the end of the storage agreement, FPL should credit this amount to the fuel adjustment clause. (Lester, Von Fossen, Slemkewicz)

#### **Staff Analysis:**

## The Company's Petition

In its petition, FPL proposes using natural gas storage to enhance the reliability of its fuel supply and to aid in reducing natural gas price volatility. FPL notes that it has used natural gas storage since 2003 and also notes that the fuel supply challenges during the 2004 and 2005 hurricane seasons caused it to consider expanding its use of storage.

The MoBay storage facility is located near the input termini of the Gulfstream and Florida Gas Transmission (FGT) pipelines in Mobile County, Alabama. According to its petition, FPL will act as an "anchor tenant" for the project and will be entitled to 50% of the project's Phase I capacity, which will be 6 million dekatherms.<sup>2</sup> FPL's current storage arrangement with Bay Gas has firm capacity of approximately 2 million dekatherms.

MoBay will store natural gas by injecting it into a depleted oil field. This type of storage requires a level of base gas, which is gas that is injected into the facility to maintain pressure so that stored gas can be withdrawn. Working gas is gas stored in inventory that can be withdrawn whereas base gas is essentially a permanent investment in gas injected into the facility so that pressure can be maintained. FPL's base gas requirement for this project is 50% of its firm

<sup>1</sup>Order No. PSC-05-0902-S-EI, issued September 14, 2005, in Docket No. 050045-EI, <u>In re: Petition for rate</u> increase by Florida Power & Light Company.

<sup>&</sup>lt;sup>2</sup> 1 dekatherm = 1 MMBtu = 1,000,000 Btu The Precedent Agreement states the firm storage capacity in dekatherms. Natural gas prices are typically stated as dollars per MMBtu. Staff will use both units of measure in this recommendation.

capacity, i.e., 3 million dekatherms. The 50% requirement for base gas is standard for storage in depleted oil and gas fields. FPL notes that it will inject and receive pipeline quality gas. Basic facts on the Mobay Project are included in the table below:

Facts on FPL's Proposed Project with MoBay Gas Storage		
	FPL's Share	Total MoBay Phase I
Withdrawal Rate	350,000 MMBtu/day	
Injection Rate	75,000 MMBtu/day	
Base Gas Volume	3,000,000 dekatherms	6,000,000 dekatherms
Working Gas Volume	6,000,000 dekatherms	12,000,000 dekatherms
In Service Date (estimated)		April 2008

FPL proposes recovering the gas storage project costs as gas transportation costs and hedging transaction costs charged to the fuel clause. The specific charges are described below:

- a. Monthly Storage Reservation Charge This will be charged to gas transportation cost as incurred and is based on the maximum storage quantity of 6 million dekatherms. FPL requested confidential treatment of the amount of this charge.
- b. Base Gas FPL will provide its own base gas, 3 million dekatherms, and proposes to charge this as a gas transportation cost in the month the gas is injected into the facility. FPL believes supplying its own base gas is less expensive than leasing base gas from MoBay.
- c. Injection/Withdrawal Charges MoBay will assess FPL a charge of 1% of each dekatherm of gas injected or withdrawn to compensate for fuel used during the compression process. In addition, MoBay will assess a per dekatherm commodity charge to compensate for operation and maintenance expense. FPL requested confidential treatment of the amount of this charge.
- d. A monthly insurance charge of \$0.0125 per dekatherm, which is applied to the total of the tenant's maximum storage quantity and base gas. Based on FPL's firm capacity, this will be \$112,500 per month.
- e. Carrying cost to compensate FPL for its investment in working gas stored in inventory. This is a time value of money cost and is based on FPL's cost of capital. FPL estimates the carrying cost for MoBay at \$5.9 million annually. FPL believes this cost is a hedging transaction cost.

# Monthly Storage Reservation Charge, Injection/Withdrawal Charges, and Monthly Insurance Charge

In staff's opinion, the monthly storage reservation charge, the injection/withdrawal charges, and the monthly insurance charge are directly related to the volume of gas available to be consumed for the purpose of generating electricity. These costs should be considered a cost of gas and should be recovered as such through the fuel adjustment clause.

### Base Gas

Under the Precedent Agreement, FPL has the option of leasing base gas from MoBay or providing its own base gas. FPL will provide it's own base gas because it believes this will be less expensive than leasing the gas from MoBay. Staff believes this is reasonable since FPL has time to lock-in the price of base gas.

As an example, at a price of \$7.00 per MMBtu, the cost of 3,000,000 dekatherms of base gas would be \$21 million. If the Commission approves this project, FPL projects it will include the charge for base gas in the fuel factor to be charged to customers during 2008. At the end of the storage agreement, i.e., 15 years, FPL will be compensated for the base gas, either by exchanging its position with a new storage customer or by withdrawing the base gas and selling it. Either way, the compensation will be credited to the fuel clause. In recommending its treatment of base gas, FPL draws an analogy to the treatment of non-recoverable oil in storage tanks.<sup>3</sup>

FPL proposed charging the cost of base gas to the fuel adjustment clause in the month when it is injected into the storage facility. Staff does not believe that this is an appropriate treatment for the cost of base gas. This treatment ignores the fact that the purpose, use, benefit and cost of base gas is applicable to the entire 15 year term of the storage agreement, not just the day that it is injected into storage. There is also the issue of possible intergenerational inequity. Today's ratepayers would be required to pay for the total cost of base gas that will benefit current and future ratepayers over the next 15 years. It is also possible that many of today's ratepayers will not be the ratepayers that benefit from the reduction in expense when FPL is compensated for the base gas at the end of the storage agreement.

Although the intergenerational inequity can't be totally eliminated, it can be mitigated. Rather than charging the entire cost of base gas to the fuel adjustment clause on the day that it is injected into storage, the cost could be deferred as a regulatory asset and be amortized to the fuel adjustment clause over the term of the storage agreement. This treatment of base gas is analogous to the approved treatment of base coal rather than non-recoverable oil.<sup>2</sup> Base coal is capitalized and then amortized over a set period. Non-recoverable oil is expensed when the storage tank is cleaned and refilled.

Because of the unique and beneficial nature of this project, the return (carrying cost) on the unamortized balance of base gas could be recovered temporarily through the fuel adjustment

<sup>&</sup>lt;sup>3</sup>Order No. 12645, dated November 3, 1983, in Docket No. 830002-EU, In re: Investigation of Fuel Adjustment Clauses of Electric Utilities.

clause until the current base rate stipulation<sup>4</sup> (Stipulation) expires. At that time, the return on the unamortized balance of base gas would be considered a base rate item and would no longer be eligible for recovery through the fuel adjustment clause.

# Working Gas Inventory Carrying Cost

FPL proposes recovering carrying cost through the fuel clause to compensate it for its investment in gas stored in inventory. This is a time value of money cost and is based on FPL's cost of capital. FPL estimates the carrying cost for MoBay at \$5.9 million annually.

Fuel inventory, whether it is coal, oil or gas, is a normal component of working capital that is included in rate base for ratemaking purposes. Therefore, the associated inventory carrying costs are included in, and recovered through, base rates. Paragraph 4 of FPL's Stipulation contains the following provision:

During the term of this Stipulation and Settlement, except as otherwise provided for in this Stipulation and Settlement, or except for unforeseen extraordinary costs imposed by government agencies relating to safety or matters of national security, FPL will not petition for any new surcharges, on an interim or permanent basis, to recover costs that are of a type that traditionally and historically would be, or are presently, recovered through base rates.<sup>5</sup>

The carrying cost of fuel inventory, both traditionally and historically, is a cost that is included in rate base and recovered through base rates. However, staff does recognize that the gas inventory itself has never been included as a component of rate base and is not presently reflected in base rates. Given the beneficial purpose and the unique nature of the gas storage project, staff believes that it is appropriate to temporarily include the gas inventory carrying cost in the fuel adjustment clause. Staff also believes that the appropriate long-term accounting treatment for the gas inventory is to include it in rate base. Therefore, the gas inventory should be included in working capital at the expiration of the current Stipulation<sup>4</sup>.

## Fuel Procurement Reliability

FPL seeks formal approval of this project and approval for the fuel clause due to the project's size, i.e., investment in base gas and working gas, and the term of the agreement – 15 years. In meetings with staff, FPL emphasized the primary goal for the storage project is to enhance fuel supply reliability. FPL stated that this storage project is a part of its overall reliability plan for fuel procurement. A secondary goal is to use storage to mitigate FPL's exposure to the volatility of natural gas prices.

Regarding reliability, staff notes FPL used natural gas for approximately 50% of its electric energy generation during 2005. Approximately half of FPL's firm gas transportation capacity is tied to off-shore production in the Destin/Mobile Bay area (Zone 3). This area is

<sup>4</sup>Order No. PSC-05-0902-S-EI, issued September 14, 2005, in Docket No. 050045-EI, <u>In re: Petition for rate increase by Florida Power & Light Company</u>.
<sup>5</sup>Page 12, Order No. PSC-05-0902-S-EI, issued September 14, 2005, in Docket No. 050045-EI, <u>In re: Petition for Petition for</u>

<sup>&</sup>lt;sup>5</sup>Page 12, Order No. PSC-05-0902-S-EI, issued September 14, 2005, in Docket No. 050045-EI, <u>In re: Petition for rate increase by Florida Power & Light Company</u>.

susceptible to production shut-ins during and immediately after Gulf of Mexico hurricanes. FPL's existing access to storage is tied only to the FGT pipeline whereas MoBay will connect to both the FGT and Gulfstream pipelines. If Gulf of Mexico gas production is curtailed, the MoBay project will provide an alternative source of gas for delivery into Gulfstream.

Since MoBay will connect directly to both pipelines supplying FPL, multiple transportation charges associated with pipelines connecting to distant storage will be avoided. Put another way, there will be no middleman between gas in MoBay storage and the Gulfstream and FGT pipelines.

FPL states that its proposed capacity with MoBay, 6 million dekatherms, corresponds to approximately five days of FPL's typical gas consumption. While this will improve FPL's ability to withstand curtailments of Gulf of Mexico gas production, the maximum daily withdrawal rate of gas from MoBay storage will be 350,000 MMBtus (350,000 dekatherms). At this withdrawal rate, FPL could keep 2,400 to 3,000 MW of gas-fired generation in service. Since the withdrawal rate is a limiting factor, it is a reasonable indicator of the positive contribution this storage can make to FPL's reliability.

In discussions with staff, FPL stated that it had many "edgy" days regarding natural gas supply during the 2005 storm season, including days when it had to rely on interruptible gas supplies. FPL has made significant use of its existing storage with Bay Gas, with a number of days at the maximum withdrawal rate. This is evidence that storage of natural gas can improve reliability.

In response to staff discovery, FPL stressed that the primary reason for its proposed participation in MoBay is to hedge the physical supply of natural gas. FPL states this will increase reliability and also reduce fuel price volatility, which creates the potential for fuel cost savings. In evaluating its fuel supply reliability requirements, FPL determined a target of having access to 900,000 MMBtu per day of gas supply during production curtailments. This would allow FPL to fuel its gas-only units and manage fuel oil inventory for its other fossil fuel plants. FPL assumed that approximately 225,000 MMBtu per day of gas would be available from onshore supply. Along with its existing storage at Bay Gas, the MoBay project will allow FPL to meet its target for access to firm supply of gas.

Staff believes the MoBay project will enhance FPL's fuel supply reliability by providing an alternative gas source and allowing FPL operational flexibility in managing its gas and oil fired generating units during Gulf of Mexico storms. In particular, MoBay storage will provide an alternative supply of gas to FPL through the Gulfstream pipeline. FPL states that, currently, its options to supply gas for delivery into Gulfstream after production shut-ins are very limited. Further, since MoBay will connect with FGT, FPL will have a reliable alternative supply of gas through that pipeline. Given FPL's dependence on off-shore gas and its recent experience with production shut-ins during Gulf of Mexico storms, the MoBay project is a reasonable addition to FPL's overall plan for fuel supply reliability.

#### Hedging for Supply and Price

FPL notes that this gas storage project is a form of physical hedging, which can act as insurance against an interruption in supply or volatility in gas prices. During and immediately after Gulf of Mexico tropical storms and hurricanes and during periods of high demand, the spot market price of gas can be highly volatile. Relying on storage will reduce FPL's exposure to such price volatility. For the years 2003, 2004 and 2005, FPL estimated that its use of Bay Gas storage for price hedging created approximately \$7 million in net savings.

In its petition, FPL states that it believes this gas storage project qualifies for cost recovery through the fuel clause because it is a form of physical hedging. In its Hedging Order, the Commission approved a resolution of issues that allowed investor-owned electric utilities to create risk management programs to manage fuel price volatility. This order allowed utilities to recover prudently incurred hedging transaction costs, gains and losses, and incremental operating costs associated with such programs through the fuel adjustment clause.

Staff recognizes that natural gas prices are volatile and that this volatility can increase during Gulf of Mexico storms. FPL has experienced net savings by using Bay Gas storage for price hedging. Staff believes this storage project qualifies under the Commission's Hedging Order as a prudent form of physical supply and price hedging.

The Commission should be aware that FPL does not project net fuel savings for this project. Any net fuel savings will depend on future market prices of natural gas, the timing of withdrawals, and the cost of gas when injected.

## Project Cost

In deciding to seek participation in the MoBay project, FPL solicited offers from five potential providers of natural gas storage. FPL states it concluded the MoBay project provided the most benefit for reliability, operational flexibility, and cost.

None of FPL's proposed charges are recovered currently through base rates or any adjustment clauses. Storage in depleted oil and gas reservoirs has lower development costs compared to other forms of gas storage, such as salt caverns. Staff has reviewed the cost information, for which FPL claims confidentiality, and believes the costs are reasonable given the value provided by increased reliability and reductions to fuel price volatility.

#### Precedent Agreement and Project Status

The Falcon Gas Storage Board of Directors has approved the Precedent Agreement. FPL included in the agreement the requirement that it obtain approval from the Florida Public Service Commission to recover the cost of its participation in the gas storage project through the fuel adjustment clause. FPL's current estimate of the in-service date for the project is April 2008.

#### Conclusion

Staff believes the MoBay storage project is reasonable and should qualify for cost recovery through the fuel cost recovery clause. MoBay will enhance the reliability of FPL's natural gas supply and it will be an additional tool for FPL to manage price volatility. Staff believes the cost of the project is reasonable.

Therefore, staff recommends that the Commission should approve FPL's petition to recover gas storage project cost for the monthly storage reservation charge, the injection/withdrawal charges, and the monthly insurance charge through the fuel adjustment clause. The Commission should allow FPL to recover the carrying cost of the gas inventory through the fuel adjustment clause until the expiration of the current base rate stipulation.<sup>6</sup> At that time, the gas inventory will be considered a base rate item and the carrying cost will no longer be eligible for recovery through the fuel adjustment clause. The Commission should not allow FPL to recover the cost of base gas for the project as a one-time charge to the fuel adjustment clause. Instead, the base gas should be recorded as a regulatory asset and be amortized over the term of the storage agreement to the fuel adjustment clause. In addition, a return on the unamortized balance of the base gas should be recovered through the fuel adjustment clause until the expiration of the current base rate stipulation. At that time, the return on the unamortized balance of base gas will be considered a base rate item and will no longer be eligible for recovery through the fuel adjustment clause. When FPL is compensated, either through exchange or sale, for the base gas at the end of the storage agreement, FPL should credit this amount to the fuel adjustment clause.

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<sup>&</sup>lt;sup>6</sup>Order No. PSC-05-0902-S-EI, issued September 14, 2005, in Docket No. 050045-EI, <u>In re: Petition for rate increase by Florida Power & Light Company</u>.

<u>Issue 2</u>: Should the Commission approve FPL's request to recover carrying costs on gas inventory that it maintains at the Bay Gas storage facility through the fuel adjustment clause?

**Recommendation**: Yes. The Commission should allow FPL to recover carrying costs on gas inventory stored at the Bay Gas facility through the fuel adjustment clause until the expiration of the current base rate stipulation.<sup>7</sup> At that time, the gas inventory will be considered a base rate item and the carrying cost will no longer be eligible for recovery through the fuel adjustment clause. (Slemkewicz, Lester, Von Fossen)

**Staff Analysis**: Since 2003, FPL has passed the cost of its present gas storage agreement with Bay Gas through the fuel clause. FPL did not seek Commission approval of this agreement due to its relatively small storage capacity compared to the MoBay project. FPL has indicated that, to date, it has not recovered the carrying costs of gas stored in inventory through the fuel clause. FPL is now requesting that, if the Commission approved its request under Issue No. 1, the Commission allow it to recovery the carrying costs on gas stored with Bay Gas on a going-forward basis in the same manner as allowed for the MoBay agreement. FPL estimates the annual inventory carrying cost associated with Bay Gas to be \$1 million.

As previously discussed in Issue 1, the carrying cost of fuel inventory, both traditionally and historically, is a cost that is included in rate base and recovered through base rates. However, staff does recognize that the gas inventory itself has never been included as a component of rate base and is not presently reflected in base rates. Given the beneficial purpose and the unique nature of the gas storage project, staff believes that it is appropriate to temporarily include the gas inventory carrying cost in the fuel adjustment clause. Staff also believes that the appropriate long-term accounting treatment for the gas inventory is to include it in rate base. Therefore, the gas inventory should be included in working capital at the expiration of the current Stipulation<sup>4</sup>

<sup>&</sup>lt;sup>7</sup>Order No. PSC-05-0902-S-EI, issued September 14, 2005, in Docket No. 050045-EI, <u>In re: Petition for rate increase by Florida Power & Light Company</u>.

**Issue 3**: Should the docket be closed?

**Recommendation**: Yes. The Commission should close this docket upon issuance of a consummating order unless a person whose interests are affected by the Commission's decision files a protest within 21 days of the issuance of the proposed agency action. (Bennett)

<u>Staff Analysis</u>: If no timely protest to the proposed agency action is filed within 21 days, the Commission should close this docket upon issuance of the consummating order.