

State of Florida



## Public Service Commission

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

**DATE:** February 17, 2005

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

**FROM:** Division of Economic Regulation (Harlow, McRoy) *WJH*  
Office of the General Counsel (Vining) *AEV* *RLT* *JST*

**RE:** Docket No. 041393-EI – Petition for approval of two unit power sales agreements with Southern Company Services, Inc. for purposes of cost recovery through capacity and fuel cost recovery clauses, by Progress Energy Florida, Inc.

**AGENDA:** 03/01/05 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

**CRITICAL DATES:** None

**SPECIAL INSTRUCTIONS:** None

**FILE NAME AND LOCATION:** S:\PSC\ECR\WP\041393.RCM.DOC

#### Case Background

Progress Energy Florida, Inc. (Progress) currently purchases 414 MW of capacity and the associated energy from the Southern Company (Southern) under two unit power sales (UPS) agreements. These agreements were executed in 1988, and are set to expire in May 2010. The existing UPS agreements consist of coal-fired generation from Southern's Scherer and Miller units, located in Georgia.

As a part of its annual fuel adjustment filing in Docket No. 040001-EI, Progress requested Commission approval for cost recovery of the anticipated extension of the existing UPS agreements with Southern. At the time, Progress had not yet finalized the agreements with Southern, but rather filed a Letter of Intent with Southern to extend the existing 1988 UPS agreements. At the prehearing conference for Docket No. 040001-EI, held on October 25, 2004, the Prehearing Officer ruled that the Commission would not address the issue until an agreement was finalized and filed with the Commission.

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On November 24, 2004, Progress signed two new UPS agreements with Southern, which will replace the existing agreements upon expiration. The two new UPS agreements consist of 425 MW of capacity, including 74 MW of coal-fired capacity from the Scherer unit. The remaining 351 MW of capacity will be provided by Southern's natural gas-fired combined cycle unit, Franklin 1, also located in Georgia. The term for each agreement is June 1, 2010 through December 31, 2015.

On December 13, 2005, Progress filed a petition requesting a finding from the Commission that entering into the UPS agreements is a reasonable and prudent action by Progress to maintain its 20 percent reserve margin. Progress also requests recovery of the energy and capacity costs associated with the agreements, subject to Commission review of the actual expenses in the annual Capacity and Fuel Cost Recovery Clause proceedings.

The Commission has jurisdiction over this subject matter pursuant to Sections 366.04, 366.05, and 366.06, Florida Statutes.

### **Discussion of Issues**

**Issue 1:** Should the Commission approve the unit power sales agreements between Progress Energy Florida, Inc. and the Southern Company for cost recovery purposes?

**Recommendation:** Yes. The agreements provide a net present value savings of \$133 million to \$145 million over the life of the contracts, due to the deferral of two natural gas-fired combined cycle units. Further, the agreements provide several non-price benefits, including: 1) fuel diversity; 2) transmission access; 3) potential savings from economy energy purchases; 4) increased reliability; and, 5) planning flexibility. (Harlow, McRoy)

**Staff Analysis:** Progress currently purchases 414 MW of capacity from the Southern Company (Southern) under two UPS agreements; set to expire on May 31, 2010. The capacity consists of coal-fired generation from Southern's Miller and Scherer units, located in Georgia. In order to maintain its 20 percent reserve margin, Progress has entered into two new UPS agreements with Southern, scheduled to take effect June 1, 2010, and expire December 31, 2015. These agreements would provide 425 MW of capacity, including 74 MW of coal-fired capacity from the Scherer unit, and the remaining 351 MW provided by the natural gas-fired Franklin 1 combined cycle unit, also located in Georgia. Progress has also obtained a right-of-first refusal for additional coal-fired capacity to replace all or part of the natural-gas fired capacity, should additional coal-fired capacity become available.

The UPS agreements specify different levelized capacity charges for the coal-fired and natural gas-fired capacity. These charges include: capital costs, costs of non-environmental capital additions, fixed O&M, and allocated overhead expenses. Any applicable changes in law which impact environmental costs will be borne by Progress. Progress will also be charged fixed gas transportation costs to deliver gas to the Franklin unit, and transmission costs to the Florida-Georgia interface. Energy charges under the agreements are set based on delivered fuel costs multiplied by the actual heat rate at the Scherer unit (heat rate varies according to the coal mix burned) and a guaranteed heat rate at the Franklin unit.

As a condition precedent for the UPS agreements, Progress must obtain firm transmission service to the Florida-Georgia interface. Transmission under the existing 1988 UPS agreements was provided under bundled service, which included roll-over rights to the transmission access. In November 2004, Progress requested firm transmission service from Southern under the terms of Southern's Open Access Transmission Tariff (OATT). A transmission agreement must be reached by February 2006, unless both parties agree to extend the deadline. Progress has the right to terminate both UPS agreements if transmission access is not granted under acceptable terms.

#### **Cost-Effectiveness:**

Progress provided staff with a cost-effectiveness analysis of the new UPS agreements, which compares expansion plans with and without the UPS agreements, from year 2010 until 2055. Progress used a 45-year analysis to represent the five year term of the contract, followed by the assumed 40-year life of a coal-fired generating unit added to the plan following the expiration of the agreements in 2015. The UPS agreements defer the need for one combined

cycle unit from 2010 to 2011, defer a second combined cycle from 2012 to 2018, and change the timing of subsequent units. Progress' analysis included the cost savings benefit of economy purchases made possible by the transmission access on Southern's system associated with the UPS agreements. Through the five year UPS contract term, 2010 through 2015, the net present value (NPV) analysis shows a significant savings of \$133 million, even if economy sales are not taken into account, due to the deferral of two generating units. Progress stated that this savings would increase to a NPV of \$145 million, with the inclusion of savings from economy purchases. Progress' 45-year comparison of the two expansion plans resulted in a negative \$5 million NPV, with a base case economy energy purchase assumption. Progress performed a sensitivity analysis assuming a fifty percent economy purchase reduction, which resulted in a negative \$11 million NPV over 45 years.

Staff has reviewed Progress' cost-effectiveness analysis and believes it is based on reasonable assumptions. Staff notes that the NPV outcome of the analysis is highly dependent on the time period used in the analysis, because the timing of several units is altered by the inclusion of the UPS agreements in Progress' expansion plan. The benefits projection for the years 2010 through 2015 are more certain than the potential costs based on a 45-year analysis. Therefore, staff would place more credence on the short-term benefits of the contracts.

**Non-Price Benefits:**

Staff agrees with Progress that the UPS agreements have several non-price benefits, which are difficult to quantify, including:

- *Transmission Access and Economy Energy:* The UPS agreements allow Progress to exercise its roll-over rights and maintain transmission access to the Southern system and beyond. This provides access to potential economy energy purchases and sales, and increases reliability. Progress believes that the UPS agreements will provide the opportunity for increased economy purchases because a portion of the capacity is natural-gas fired. The Franklin unit will not be dispatched over as many hours as a coal-fired unit, providing Progress with excess transmission capacity that may be used to transport economy energy in the hours when Progress is not taking energy from Franklin.
- *Fuel Diversity:* Although the UPS agreements provide less coal capacity than the existing agreements, more coal capacity is provided than under the self-build option. Placing this coal-fired capacity under contract will reduce the exposure of Progress' ratepayers to fuel price volatility. Progress has also obtained a right-of-first refusal on additional coal capacity to replace all or part of the Franklin natural-gas fired capacity.
- *Planning Flexibility:* The UPS agreements offer planning flexibility compared to a self-build option. Progress has obtained a right to extend a portion of the contracted capacity to 2017, or it can let the agreement expire. The contracts also give Progress additional time to study the cost-effectiveness and feasibility of adding coal-fired capacity. Progress provided staff with information on two recent internal and external analyses of the impact of adding coal-fired capacity to

Progress' system. Progress assumed that the in-service date of a coal-fired unit would be moved up from year 2017 to 2015 in its expansion plan with the UPS agreements.

- *Reliability:* The UPS agreements increase reliability by: 1) adding an outside source for natural gas transportation; and, 2) providing access to energy from Southern's system and beyond. The Franklin agreement allows Southern to provide energy from alternate units in case of a forced outage or if Southern chooses not to dispatch the Franklin unit. If Southern provides energy from an alternate source, Progress will receive a discount on the energy charge.

In summary, the UPS agreements provide a NPV savings of between \$133 million to \$145 million over the life of the contracts, due to the deferral of two natural gas-fired combined cycle units. Further, the agreements provide several non-price benefits, including: 1) access to transmission on Southern's system; 2) the potential for savings from economy energy purchases; 3) fuel diversity; 4) increased reliability; and, 5) planning flexibility. Staff believes that the fuel diversity and planning flexibility afforded by the agreements are of particular importance due to the volatility and forecasting uncertainty of natural gas prices. The coal-fired capacity from Southern's Scherer unit will reduce Progress' ratepayers exposure to fuel price volatility, while the timing of the contracts will give Progress the flexibility to defer several natural gas-fired plants and potentially move up the in-service date of a coal-fired unit. Given the more certain up-front NPV benefits and additional non-price benefits, staff believes the UPS agreements are worth the risk that an expansion plan that includes the agreements may have a negative NPV of between \$5 to \$11 million through 2055. Accordingly, staff believes that entering into the UPS agreements is a reasonable and prudent action by Progress to maintain its 20 percent reserve margin. Therefore, staff recommends approval for cost recovery of the energy and capacity costs associated with the UPS agreements, subject to a Commission review of the actual expenses in the annual Capacity and Fuel Cost Recovery Clause proceedings.

**Issue 2:** Should this docket be closed?

**Recommendation:** If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order. (Vining)

**Staff Analysis:** If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order.