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: September 8, 2005

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

FROM: Division of Economic Regulation (Breman, Harlow, Kyle, Wheeler)
Office of the General Counsel (Stern)

RE: Docket No. 050316-EI – Petition for approval of integrated Clean Air Regulatory Compliance Program for cost recovery through Environmental Cost Recovery Clause, by Progress Energy Florida, Inc.

AGENDA: 09/20/05 – 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\050316.RCM.DOC

Case Background

The Environmental Cost Recovery Clause (ECRC) was established on April 13, 1993, by Section 366.8255, Florida Statutes. The ECRC provides recovery of costs incurred to comply with environmental laws or regulations through an environmental compliance cost recovery factor this is separate and apart from the utility's base rates. Section 366.8255(2), Florida Statutes. Any costs recovered in base rates may not also be recovered in the environmental cost recovery clause. Section 366.8255(5), Florida Statutes.

Electric utilities may petition the Commission to recover projected environmental compliance costs required by environmental laws or regulations. Section 366.8255(2), Florida

Statutes. Environmental laws or regulations include "all federal, state, local statutes, administrative regulations, orders, ordinances, resolutions, or other requirements that apply to electric utilities and are designed to protect the environment." Section 366.8255(1)(c), Florida Statutes. If the Commission approves the utility's petition for cost recovery through this clause, only prudently incurred costs may be recovered. Section 366.8255(2) Florida Statutes.

On May 6, 2005, Progress Energy Florida, Inc., (PEF) petitioned for cost recovery, through the ECRC of the costs incurred to comply with two new federal rules establishing limits on air emissions. The new rules are: 1) the Clean Air Interstate Rule ("CAIR"), which limits emissions of sulfur dioxide (SO_2) and nitrous oxides (NOx); and, 2) the Clean Air Mercury Rule (CAMR), which limits emissions of mercury.

PEF's petition includes projected expenses associated with Phase I of CAIR and CAMR totaling $1,120,092,000 in capital additions and $34,000,000 in annual operating and maintenance expenses (O&M) by 2014. PEF's petition does not provide any estimates of Phase II requirements for CAIR and CAMR which begin in 2015 and 2018 respectively.

Discussion of Issues

Issue 1: Should the Commission approve PEF's petition for recovery of implementing its Integrated Clean Air Regulatory Compliance Program as a new activity for cost recovery through the Environmental Cost Recovery Clause?

Recommendation: Yes, conditionally. Costs for Phase I Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR) compliance activities are eligible for recovery through the ECRC and any prudently incurred costs are appropriate for recovery through the ECRC. It is premature to address recovery of PEF's costs to comply with Phase II of CAIR and CAMR because PEF has not identified any such costs. If the new EPA rules are stayed, PEF should submit a copy of the stay to the Commission within two weeks of its issuance. (Breman, Stern, Harlow, Wheeler)

Staff Analysis: Staff's analysis includes five sections for presentation purposes and to better address the evolving nature of the environment requirements as well as the timing and scope of PEF's actions. The five sections are: Environmental Requirements, Summary of PEF's Petition, Activities prior to State Implementation Plan Revision, ECRC Treatment, and Conclusion.

Environmental Requirements

CAIR and CAMR became effective in July 2005. The Florida Department of Environmental Protection (DEP) must implement CAIR and CAMR in Florida by September 2006. CAIR provides two options to achieve the emissions reductions: 1) follow a federally-approved template (included in the CAIR rule) that would achieve compliance through a cap-and-trade program directed at electric generating units; or 2) develop an alternate means of meeting the required reductions that could focus on any industry or combination of industries including power generation. Each affected state decides on the strategy it will use. The state must modify its State Implementation Plan (SIP) to include its compliance strategy by September 2006. If it does not do so, it will be subject to a Federal Implementation Plan (FIP) which will incorporate the cap-and-trade program.

The states, through their SIPs, decide how to apportion the reductions among industries. Thus, it is the SIPs that will impose environmental requirements directly on specific sources of pollutants. As explained above, the states can do this by focusing on electric generating units or by focusing on other sources of NOx or SO_2.

On June 8, 2005, the Commission Staff met with representatives of PEF and DEP's Division of Air Resources Management. The DEP representatives explained that for Florida to meet the emission reductions in CAIR, it would have to reduce emissions at electric generating units because they are the most significant source of NOx and SO_2 in the state. They further explained that PEF's electric generating units would be affected because few pollution controls for SO_2 and NOx are installed on PEF's electric generating units.

DEP staff would like to revise Florida's SIP to require emission reductions from electric generating units. That is, it intends to use the cap-and-trade model in CAIR as a starting point. DEP must go through rulemaking to modify its SIP; however, it has directed electric utilities to

use the federal model for planning purposes at this time. DEP will not start rulemaking on the SIP until the late fall of 2005. If the rulemaking is not complete by September 2006, Florida will be subject to the FIP. However, the FIP must also go through the federal rulemaking process before it is enforceable. EPA estimates that the FIP will become an effective rule in March 2006.

The CAIR cap-and-trade model includes a formula for allocating SO_2 and NOx allowances, and DEP has directed electric utilities to use this formula for planning purposes. The actual allocation may change through the rulemaking process, and depends, in part, on the number of allowances put into the "new unit set aside." That is, some percentage of the allowances may be held back for new electric generating units or other new sources. The percentage held back is at the state's discretion and will probably be a subject of debate during rulemaking. The method of allocating allowances will probably be a controversial topic also. Allocations can be made based on heat input rate or heat output rate. The former favors older, less efficient units and the latter favors newer, more efficient units. The DEP representatives indicated that the allocation method and new unit set aside may alter the unit specific emission limits for PEF's units, but these factors would not change the fact that PEF will have to substantially reduce its emissions.

Table 1 provides a summary of estimated changes in annual air emissions limits for Florida electric generating units assuming a CAIR cap-and-trade compliance program is established.

Table 1

Estimated Annual Florida Air Emission Limits due to a CAIR Cap-and-Trade Program						
			CAIR – Phase I		CAIR - Phase II	
	Pre-CAIR through 2008		2009-2014	2010-2014	2015 – forward	
Type of Emissions	NOx	SO2	NOx	SO2	NOx	SO2
Est. Annual Florida Budget	151,054 Tons	506,900 Tons	99,445 Tons	253,450 Tons	82,871 Tons	177,415 Tons
Allowances per ton Emitted	1 = 1 Ton	1 = 1 Ton	1 = 1 Ton	2 = 1 Ton	1 = 1 Ton	2.86 = 1 Ton

CAMR requires a phased reduction of mercury emission from electric generating units. Unlike CAIR, CAMR applies only to electric generating units. Compliance with the first phase of CAMR, 2010 through 2017, is expected to be achieved in large part by the pollution control equipment required to limit emissions of NOx and SO_2 under CAIR. The second phase of CAMR begins in 2018. Compliance with Phase II requirements of CAIR and CAMR may require separate retrofit projects.

Since PEF filed its petition for cost recovery, numerous challenges to the CAIR rule have been filed at the U.S. Court of Appeals, D.C. Circuit (Petitions for Review) and the EPA (Petitions for Reconsideration and Stay). Two petitions were filed by the Florida Association of Electric Utilities, of which PEF is a member. At the time this recommendation was filed, no stay had been granted and the rules are effective. It is impossible to know whether the rule will be stayed, whether the stay will apply to Florida electric utilities, or how long a stay would be in effect. FPL has also filed a challenge to the CAIR rule, questioning its applicability to Florida.

To summarize thus far, there is currently no federal or state rule that imposes the emission reductions in CAIR and CAMR directly on the electric generating industry or on PEF. This can only be accomplished by modifying Florida's SIP or having the FIP imposed on Florida. Either method requires rulemaking. Therefore, the implementation strategy that will be adopted in Florida is uncertain at this time as are specific emission limits for specific electric generating units. Whether the SIP is amended or the FIP applied, PEF will have affected facilities because few air pollution controls for SO_2, NOx, and mercury are installed on PEF's electric generating units.

Summary of PEF's Petition – Phase I

As directed by DEP, in its planning to reduce emissions, PEF assumed that the cap-and-trade program as described in the CAIR rule would be adopted in Florida. PEF also had to make assumptions about the number of SO_2 and NOx allowances that would be issued, efficiency of various pollution control equipment, fuel quality, and numerous other factors typically considered during system planning reviews. PEF concluded that retrofit activities to reduce air emissions would be required to comply with CAIR and CAMR.

PEF is beginning retrofit activities at three power plant sites: Crystal River, Anclote, and Bartow. At this time, the retrofit activities at the Crystal River Power Plant are expected to include installation of flue gas desulphurization (FGD or scrubber) to remove SO_2, and selective catalytic reduction (SCR) to remove NOx, at each of the four coal-fired units (1, 2, 3 and 5). The retrofit activities at Anclote Unit 1 and Bartow Units 1, 2, and 3 currently include installation of low-NOx burners, Overfire Air Systems, and Selective Non-Catalytic Reduction systems (SNCR). PEF is conducting studies to deal with all aspects of the anticipated retrofits.

Estimated capital additions at the three power plant sites through 2014 total $1,120,692,000. Annual operating and maintenance expenses at the three power plant sites combined are expected to increase to approximately $34-$35 million by 2012 and remain at that level thereafter.

In 2005, PEF expects to spend $2 million on studies. In 2006, PEF expects to spend $62 million as follows:

1) $46 million for design, engineering and initial procurement of equipment and materials for scrubbers and SCR systems at Crystal River Units 4 and 5;

2) $14 million at Anclote Unit 1 for design, engineering, procurement, installation and startup of low-NOx burners, overfire air systems, and SNCR systems; and,

3) $2 million at Bartow Units 1, 2, and 3 for design, engineering, and initial procurement of equipment and materials for low-NOx burners, overfire air systems, and SNCR systems.

PEF believes it must proceed at this time, prior to SIP rulemaking, because it has substantial activities to complete by the 2009/2010 Phase I compliance dates of CAIR and CAMR. PEF claims that it will not meet the Phase I compliance deadlines if it does not begin compliance activities immediately. Staff notes that PEF has confirmed that the scope of all activities and costs are subject to change as PEF completes ongoing studies and the SIP goes through rulemaking.

Summary of PEF's Petition – Phase II

At this time, PEF has not specified any Phase II compliance activities or estimated any Phase II CAIR and CAMR compliance costs. PEF has requested that the Commission approve recovery of costs for implementing its Integrated Clean Air Regulatory Compliance Program without differentiating between Phase I and Phase II compliance activities.

Activities Prior to State Implementation Plan Revision

In the preamble to the CAIR rule the EPA explains how it decided on its compliance deadlines for Phase I and Phase II. The EPA states that the rule gives emission sources 45 months to meet the NOx requirement and 57 months to meet the SO_2 requirement. The EPA acknowledges that the majority of sources required to install controls will not want to commit major funds to compliance activities until after the SIPs become final. However, the EPA indicates that major sources, those expected to require longer implementation periods, should probably begin activities such as "planning, preparation of conceptual designs, selection of technologies, and contacts with equipment suppliers" [hereinafter "planning activities"] prior to adoption of the SIPs in order the meet the Phase I deadlines. EPA recommends that after the SIPs are final, major sources should complete "purchasing, detailed design, fabrication, construction and startup" [hereinafter "construction activities"] of the required controls.[1] The sources would then have 27 months for the completion of NOx controls, and 39 months for completion of SO_2 controls. The preamble explains at length the research that was done to develop and justify these time frames. The EPA recognized that many major sources may have to install controls on multiple units and still found the timeframes reasonable.

PEF estimates that it will take 30-36 months to complete the SCR projects at Crystal River (9-15 months ahead of the time allowed by the EPA) and 42-48 months to complete the FGD projects there (9-15 months ahead of the time allowed by the EPA). PEF is well within the EPA timeframes.

PEF's proposal is consistent with the preamble in some respects and inconsistent in others. PEF is a major source, and it proposes to undertake the planning activities recommended by EPA before amendment of the SIP. However, PEF proposes to conduct certain construction activities before the SIP is amended. At this time, PEF proposes to proceed with detailed engineering and procurement at Anclote 1 so that installation would occur during a planned

[1] Federal Register, Volume 70, No. 91, page 25217.

outage in the fall of 2006, the time when the SIP modifications are scheduled for adoption. Procurement at Bartow may also begin before the SIP is modified. PEF estimates that costs for purchasing, detailed design, and fabrication of the scrubbers and SCR systems at the Crystal River units would occur before adoption of the SIP modifications. PEF, however, emphasizes that the entire schedule is subject to change.

ECRC Treatment

PEF's costs for developing and implementing a plan to comply with Phase I of EPA's CAIR and CAMR rule qualify as environmental compliance costs under Section 366.8255(1)(c) and (d) because CAIR and CAMR are requirements that will apply to electric utilities and CAIR and CAMR are designed to protect the environment. Given that rule challenges have been filed, it is up to the utility to decide if it is prudent to start spending money on the program under these circumstances.

Therefore, staff recommends that only prudently incurred costs to comply with Phase I of CAIR and CAMR be found eligible for recovery through the ECRC. It is premature to address recovery of PEF's costs to comply with Phase II of CAIR and CAMR because PEF has not identified any such costs, and it is doubtful that projections for Phase II would be reliable. When PEF has determined with specificity its Phase II compliance activities for CAIR and CAMR then PEFI can request ECRC treatment of the resultant costs should it choose to do so.

As previously discussed, a great deal of uncertainty surrounds this project. SIP amendments have to be adopted through rulemaking, and certain aspects of that process could be very controversial. In addition, PEF acknowledges that its proposed timeline, activities and compliance costs are all subject to change. This appears to be due partly to the uncertainty about the SIP and partly because PEF has to conduct numerous studies before it can be sure of the work that has to be done on its electric generating units. Also, PEF proposes to begin construction activities before the SIP amendments are final. Finally, there are several rule challenges pending against the CAIR rule.

In light of the above, staff recommends that PEF arrange a meeting at least annually with staff and any parties to the 050007-EI docket who wish to attend. The purpose of the meeting would be for PEF to provide an update on the status of compliance activities, costs, the SIP and FIP rulemaking procedures, and the lawsuits and respond to related questions.

If a stay is issued, PEF should file a copy of it with the Commission within two weeks of its issuance. The manner in which the stay will be handled procedurally and substantively will be addressed at that time.

PEF seeks recovery of costs incurred from the date its petition was filed, May 6, 2005. However, the CAIR and CAMR rules did not become effective until July 11 and 18, 2005, respectively. The ECRC allows recovery of costs to comply with "environmental laws and regulations." Section 366.8255(2), Florida Statutes. The Commission has always interpreted this to mean laws and regulations that are in effect. In the case of federal rules, the final rule is published 60 days before it becomes effective. Although challenges were filed during this time period, the rule has not yet been stayed. PEF should be allowed to recover the prudent costs

incurred between the date its petition was filed and the date the rule became effective, because the petition was filed after the final rule was noticed and the rule has not changed since it was noticed.

PEF's current rates were established by Order No. PSC-02-0655-AS-EI, issued May 14, 2002, in Docket No. 000824-EI, In re: Review of Florida Power Corporation's earnings, including effects of proposed acquisition of Florida Power Corporation by Carolina Power & Light. At that time, the EPA had not established the CAIR and CAMR requirements. Consequently, it is reasonable to conclude that PEF's current base rates do not recover any of the costs for which PEF is seeking ECRC treatment. Staff has confirmed that PEF has excluded costs for compliance with CAIR and CAMR from its requested rate increase in Docket No. 050078-EI, In Re: Petition for rate increase by Progress Energy Florida, Inc. Therefore, staff believes PEF's prudently incurred Phase I CAIR and CAMR compliance costs are not recovered through any other cost recovery mechanism.

The costs that PEF is asking the Commission to include in the ECRC are the costs incurred after May 6, 2005, the date of this petition. All of the costs incurred during 2005 are being capitalized and the new retrofit facilities will not be in service during 2005. Therefore, there is no mid-course rate effect for 2005 due to including the new activity in the ECRC at this time. Testimony and projections filed pursuant to the ECRC will address updates to PEF's CAIR and CAMR compliance activities for 2006 should this petition be approved.

The depreciation rates used to calculate the depreciation expense for the proposed plant additions should be the rates that are in effect during the period the capital investment is in service. Since the proposed plant additions will have no salvage value once the generating plant retires, the controlling depreciable life is the remaining life of the generating plant. Thus, the proposed plant additions will be recovered on a schedule consistent with the remaining life of the respective generating stations.

Staff notes that CAIR and CAMR are established pursuant to the Clean Air Act. Commission policy regarding how to allocate costs to the rate classes due to Clean Air Act compliance activities was established by Order No. PSC-94-0044-FOF-EI, issued January 12, 1994, in Docket No. 930613-EI, In Re: Petition to establish an environmental cost recovery clause pursuant to Section 36.8255, Florida Statutes by Gulf Power Company. In that docket, the Commission ordered that costs associated with compliance with the Clean Air Act Amendments of 1990 ("CAAA") be allocated to the rate classes in the ECRC on an energy basis, due to the strong nexus between the level of emissions which the CAAA seeks to reduce and the number of kilowatt-hours generated. In every subsequent order approving recovery of CAAA costs through the ECRC, the Commission has required that the costs be allocated to the rate classes on an energy basis. Because the costs for which PEF is seeking recovery in this docket are also related to Clean Air Act compliance, staff believes an energy allocation is appropriate.

However, paragraph 18 of the proposed settlement of PEF's current rate case, Docket No. 050078-EI, states "New capital costs for environmental expenditures recovered through the Environmental Cost Recovery Clause will be allocated, for purpose of clause recovery, consistent with PEF's current base cost of service methodology." Approval of the proposed settlement in Docket No. 050078-EI will prospectively change the allocation of cost recovery of

PEF's new capitalized CAAA compliance costs to the rate classes. Staff notes the Commission approved a similar condition by bench vote in FPL's rate case, Docket No. 040045-EI, on August 24, 2005. (See hearing transcript page 1682).

Conclusion

PEF identified the prospective nature of the environmental compliance requirements. PEF provided adequate information explaining its proposed activities and projected costs. PEF's current base rates do not provide cost recovery of the proposed activity. Therefore, prudently incurred costs implementing PEF's Integrated Clean Air Regulatory Compliance Program associated with Phase I of EPA's CAIR and CAMR rule are eligible for recovery through the ECRC. It is premature to address recovery of PEF's costs to comply with Phase II of CAIR and CAMR because PEF has not identified any such costs. If the new EPA rules are stayed, PEF should submit a copy of the stay to the Commission within two weeks of its issuance.

Issue 2: Should this docket be closed?

Recommendation: Yes, this docket should be closed upon issuance of a Consummating Order unless a person whose substantial interests are affected by the Commission's decision files a protest within 21 days of the issuance of the proposed agency action. (Stern)

Staff Analysis: If no timely protest to the proposed agency action is filed within 21 days, this docket should be closed upon the issuance of a Consummating Order.