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: June 8, 2006

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

FROM: Division of Economic Regulation (Von Fossen, Breman, Draper, Haff, Slemkewicz)
Office of the General Counsel (Brown)

RE: Docket No. 050958-EI – Petition for approval of new environmental program for cost recovery through Environmental Cost Recovery Clause by Tampa Electric Company.

AGENDA: 06/20/06 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Deason

CRITICAL DATE: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\050958.RCM.DOC

Case Background

On December 27, 2005, Tampa Electric Company (TECO or company) petitioned for cost recovery through the Environmental Cost Recovery Clause (ECRC) of the costs associated with a project titled "Big Bend Flue Gas Desulfurization System Reliability Program" (FGD Reliability Program) for improved reliability of the flue gas desulfurization systems (scrubbers) on Big Bend Units 1, 2, and 3. TECO indicates that such improvements are necessary to comply with settlement agreements with the Florida Department of the Environmental Protection (FDEP) and the United States Environmental Protection Agency (EPA) issued on December 16, 1999, and February 29, 2000, respectively. Under the settlement agreements, TECO is prohibited

from operating Big Bend Units 1, 2 and 3 unscrubbed at any time beginning in 2010 (Big Bend Units 1 and 2) and 2013 (Big Bend Unit 3). Thus the reliability of these units, as well as Unit 4 that shares the Unit 3's FGD system, is limited by the reliability of their respective FGD systems.

Section 366.8255, Florida Statutes, authorizes the Commission to review and decide whether a utility's environmental compliance costs are recoverable through an environmental cost recovery factor. Electric utilities may petition the Commission to recover projected new environmental compliance costs, required by environmental laws or regulations, not included in base rates. Environmental laws or regulations include "all federal, state, or 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. Only prudently incurred environmental compliance costs may be recovered through the clause, ". . . including the costs incurred in compliance with the Clean Air Act, and any amendments thereto or any change in the application or enforcement thereof. . . ." Section 366.8255(2), Florida Statutes.

Discussion of Issues

Issue 1: Should the Commission approve TECO's petition for Big Bend Flue Gas Desulfurization System Reliability as a new activity for cost recovery through the ECRC?

Recommendation: Yes, this project is eligible for cost recovery through the ECRC. (Von Fossen, Breman, Haff, Draper)

Staff Analysis:

Teco's Petition

TECO has asked the Commission to approve the FGD Reliability Program as eligible for cost recovery through the ECRC. TECO has also asked the Commission to determine whether the program should be implemented at the time unscrubbed days are no longer allowed pursuant to the consent decree (CD) or in conjunction with already planned generating unit outages for installation of selective catalytic reduction systems. TECO also seeks approval of a cost recovery methodology for the costs of the FGD Reliability Program. Presently, costs associated with the scrubbers on Big Bend Units 1 and 2 are being recovered through the ECRC. Costs associated with Big Bend Unit 4 are included in base rates. The Big Bend Unit 4 scrubber is interconnected with Big Bend Unit 3 and the costs of the interconnection are currently recovered through the ECRC.

On March 16, 2006, TECO revised its schedule showing its proposed cost recovery methodology. Based upon this schedule, the total estimated capital cost of the Big Bend Flue Gas Desulfurization System Reliability Program is $21,651,000. This total program cost is allocated into three components for cost recovery. Therefore, the reasonableness and timing of the project are evaluated as a whole, while proposed cost recovery is related to the individual components of the program. TECO's proposed cost recovery methodology is to allocate a portion of the costs to a new ECRC program for costs associated with Units 3 and 4 and allocate Units 1 and 2 costs to an existing ECRC program that already includes the affected scrubbers. Additional costs, which include retirements and replacements to Units 3 and 4, are allocated for future base rate recovery. Based upon this methodology, TECO would recover an estimated $11,929,000 capital investment costs as a new ECRC project titled Big Bend FGD System Reliability. If the overall FGD Reliability Program is approved as eligible for ECRC cost recovery, TECO would recover an additional estimated $7,096,000 as incremental capital costs to its existing Big Bend Units 1 and 2 FGD program in its annual ECRC filings. An additional estimated $2,626,000 in FGD program costs would be recovered in base rates.

TECO will incur operational and maintenance (O&M) expenses for the FGD reliability project. However, decreases to existing O&M expenses due to automation and increased reliability related to the total project are expected to offset the proposed FGD reliability project O&M expenses.

TECO's FGD Reliability Program consists of 13 separate additions and modifications of the FGD systems to increase reliability of the individual scrubbers and to isolate scrubber components. For example, much of the FGD equipment is currently served by common

transformers and motor control centers. The failure of transformers and motor control centers can lead to outages of multiple generating units. The installation of separate transformers and motor centers for each FGD system would isolate plant outages to a single unit. This same scenario exists for the inlet and outlet ducts to Big Bend Units 3 and 4. Isolating these common ducts will allow for only one unit being taken down for duct maintenance. Additional activities involve back up systems and improvements to avoid potential clogging of both the gypsum blow down lines and the mist eliminator systems. The individual activities are centered on improvements to FGD components which the company has identified as most likely to cause scrubber failure and thus generating unit outages.

TECO asserts that its FGD Reliability Program is required to comply with Paragraph 40 of the CD. The CD is a February 29, 2000, settlement order with the EPA that establishes operational parameters relative to SO2 emissions for Big Bend units 1 though 3. Paragraph 36 of the CD required the company to declare in writing to the EPA whether the Big Bend Units would continue to combust coal, repower or shutdown. On August 19, 2004, the Company submitted a letter to the EPA indicating the Big Bend Station would continue to combust coal. This declaration triggered paragraph 40 of the CD which provides deadlines after which the company may no longer operate any Big Bend Unit without the FGD systems in operation. Sub paragraphs 29 and 30 referenced within paragraph 40 provide for a gradual reduction in days which the company may operate without the FGD systems, transitioning to the stated deadlines. After 2010 for Big Bend Unit 3 and 2013 for Big Bend Units 1 and 2, the company can operate these units only to the extent the FGD system/scrubbers are in operation according to paragraph 40. Based upon these constraints, TECO initiated this docket with the intent of improving the reliability of the scrubbers to increase the availability of all Big Bend Units. Paragraph 40 of the CD provides:

40. "If Tampa Electric elects under Paragraph 36 to continue combusting coal at Units 1, 2, and/or 3, Tampa Electric shall meet the following requirements.

A. Removal Efficiency or Emission Rate. Commencing on dates set forth in Subparagraph C and continuing thereafter, Tampa Electric shall operate coal-fired Units and the scrubbers that serve those Units so that emissions from the Units shall meet at least one of the following limits:

(1) the scrubber shall remove at least 95% of the SO2 in the flue gas that entered the scrubber; or

(2) the Emission Rate for SO2 from each Unit does not exceed 0.25 lb/mmBTU.

B. Availability Criteria. Commencing on the deadlines set in this Paragraph and continuing thereafter, Tampa Electric shall not allow emissions of SO2 from Big Bend Units 1, 2, or 3 without scrubbing the flue gas from those Units and using other equipment designed to control SO2 emissions. Notwithstanding the preceding sentence, to the extent that the Clean Air Act New Source Performance Standards identify circumstances during which Bend Unit 4 may operate without its scrubber, this Consent Decree

shall allow Big Bend Units, 2, and/or 3 to operate when those same circumstances are present at Big Bend Units 1, 2, and/or 3.

C. Deadlines. Big Bend Unit 3 and the scrubber(s) serving it shall be subject to the requirements of this Paragraph beginning January 1, 2010 and continuing thereafter, Until January 1, 2010, Tampa Electric shall control SO2 emissions from Unit 3 as required by Paragraphs 30 and 31. Big Bend Units 1 and 2 and the scrubber(s) serving them shall be subject to the requirements of this Paragraph beginning January 1, 2013 and continuing thereafter. Until January 1, 2013, Tampa Electric shall control SO2 emissions from Units 1 and 2 as required by Paragraphs 29 and 31.

D. Nothing in this Consent Decree shall alter requirements of NSPS, 40 C.F.R. Part 60 Subpart Da, that apply to operation of Unit 4 and the scrubber serving it."

Project Eligibility

To be eligible for cost recovery through the ECRC, the FGD Reliability Program must be necessary to comply with environmental laws or regulations. Section 366.8255(1)(c), Florida Statutes, states environmental laws or regulations "include all federal, state or local statutes, administrative regulations, orders, ordinances, resolutions or other requirements that apply to electric utilities and are designed to protect the environment."

The CD requires TECO to remove at least 95% of the SO2 in the flue gas that enters the scrubber and provides that TECO will not operate the Big Bend Units without the scrubbers operating. Presently, the company is in compliance with the CD by removing 95% of the SO2 and not exceeding the unscrubbed operating days allowed in the transition period leading to the paragraph 40 deadlines. When the new environmental requirement disallowing unscrubbed days becomes effective, the Big Bend baseload units may not operate when the scrubbers are not available. Shutting down or de-rating these units would result in the dispatch of higher fuel cost units or the purchase of replacement capacity and power. In direct response to the impact of this requirement, TECO has proposed a project to improve the reliability of the existing scrubbers thereby enhancing the reliability of the Big Bend Units.

While staff believes TECO is not required to increase the reliability of its existing scrubbers, the CD is the basis for TECO's decision to increase scrubber reliability. To comply with many new environmental requirements, a utility has options on how to achieve compliance. Since TECO's inability to operate the Bend Units without the scrubber in operation is a new environmental requirement, sound regulation would dictate the most cost effective compliance option be initiated for the benefit of the company's ratepayers. The most direct option to comply with the CD, is to de-rate or not operate the units based upon scrubber availability. However, this option would lead to decreased system/unit reliability and additional fuel costs to ratepayers. The company has estimated net fuel savings of $34,000,000 over the initial four years after completion of the FGD reliability project using current forecasts of replacement capacity and energy costs. This is not a project designed to increase system reliability. The FGD

reliability project will provide better and more reliable scrubber operation and maintain the baseline dispatch of the Big Bend units in a cost effective manner. Therefore, both unit availability and system reliability would only be maintained at their existing levels in response to the constraints of the CD.

TECO's current base rates do not recover the costs of the FGD reliability project for which TECO is seeking recovery through the ECRC. TECO's current base rates were established by Order No. PSC-93-0758-FOF-EI, issued May 19, 1993, in Docket No. 920324-EI, In Re: Application for a rate increase by Tampa Electric Company. Approximately six years later, the settlement agreements, including the Consent Final Judgment with the DEP and the CD with the EPA, were entered into on December 16, 1999, and February 29, 2000, respectively. Thus, these costs were not considered at the time base rates were last modified. Therefore, staff believes TECO's propose FGD Reliability Program is eligible for cost recovery through the ECRC.

Project Evaluation

To improve FGD performance, the company engaged the consulting firm of Sargent and Lundy to identify a cost effective approach for these modifications and upgrades. This study addressed the following questions:

- What FGD system reliability modifications and upgrades were cost effective for improving overall unit availability?

- Should the cost effective FGD system reliability improvements be made just prior to the expiration of the allocated un-scrubbed operating days or should they be installed as part of the ongoing selective catalytic reduction systems ("SCR") construction unit outages?

The company provided an overview of its analysis within its petition and the actual studies through discovery. The overall project includes 13 separate components which were identified as necessary to maintain FGD system performance with minimal unit outages subsequent to the 2009 and 2012 CD deadlines. The company's modeling and cost-benefit analysis shows each component to be cost effective. Beginning in 2006, the Company will incur estimated capital expenditures of $21,651,000 over a four year period with estimated net savings to ratepayers of $33,998,000. Most of the estimated savings is comprised of fuel cost savings. When unscrubbed days are no longer allowed, the Big Bend baseload units may not operate when the scrubbers are not available, resulting in the dispatch of higher fuel cost units or the purchase of replacement capacity and power. The analysis was also used to determine the cost effectiveness of doing this project in conjunction with already planned plant outages for installation of the selective catalytic reduction systems (SCR) or waiting until 2010 and 2013 when TECO's transition period ends. This analysis showed it is cost effective to implement the FGD reliability program and SCR installations at the same time to avoid additional generating unit outages and additional replacement fuel costs. The results showed that both the scope and timing of the FGD reliability project were cost effective. On the basis of the above analysis staff

concludes that TECO has made a reasonable assessment of possible options and selected the most cost-effective alternative.

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 Big Bend generating station.

TECO proposes that the plan implementation costs be allocated to the rate classes on an energy basis consistent with Commission policy set 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 366.8255, 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. Because the costs for which TECO is seeking recovery in this docket relate to the goals of CAAA, staff believes that cost allocation on an energy basis is appropriate.

Conclusion

Staff believes that because the costs associated with this program are not being recovered in base rates, because there will be fuel cost savings in excess of the cost of the project and because the project will maintain unit/system reliability, TECO has initiated an economically justified and beneficial environmental compliance option for its ratepayers. The FGD reliability program will allow for better utilization of the existing scrubbers and maintain generating unit availability to at least its existing level. Therefore, we recommend that cost recovery through the ECRC be approved for the reliability project, the project be done in conjunction with the planned plant outages for installation of the previously approved selective catalytic reduction systems and the company's cost recovery methodology be approved.

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. (Brown)

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.