



Public Service Commission

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RECORDS AND REPORTING

DATE: OCTOBER 5, 2000

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYO)

FROM: DIVISION OF SAFETY AND ELECTRIC RELIABILITY (BREMAN)
 D.LEE, MCNULTY) *WMM*
 DIVISION OF ECONOMIC REGULATION (E. DRAPER, P. LEE, SLEMKEWICZ) *DS RMT*
 DIVISION OF LEGAL SERVICES (STERN) *MKS RVE*

RE: DOCKET NO. 001186-EI - PETITION FOR APPROVAL OF NEW ENVIRONMENTAL PROGRAMS FOR COST RECOVERY THROUGH THE ENVIRONMENTAL COST RECOVERY CLAUSE BY TAMPA ELECTRIC COMPANY.

AGENDA: 10/17/00 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\SER\WP\001186.RCM

CASE BACKGROUND

The United States Department of Justice, on behalf of the United States Environmental Protection Agency (EPA), filed a lawsuit against Tampa Electric Company (TECO), on November 3, 1999, alleging TECO violated the Prevention of Significant Deterioration (PSD) requirements at Part C of the Clean Air Act, 42 U.S.C. §§ 7470-7492. The EPA alleged that TECO was required to obtain a PSD permit and apply best available control technology (BACT) before proceeding with various power plant modifications which TECO completed between 1991 and 1996. The power plant modifications in question were replacements of boiler equipment such as steam drum internals, high temperature reheater, water wall, cyclone, and furnace floor.

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FPSC-RECORDS/REPORTING

The Florida Department of Environmental Protection (DEP) filed a lawsuit against TECO on December 7, 1999, which mirrored the EPA lawsuit. Shortly after DEP filed its lawsuit, TECO and DEP settled the suit by entering a Consent Final Judgment (CFJ). The CFJ became effective on December 16, 1999. The CFJ requires TECO to:

- ◆ Optimize the scrubber on Big Bend Station Units 1&2 to achieve 95% sulfur removal efficiency beginning year 2000.
- ◆ Maximize the availability of both scrubbers at Big Bend Station beginning in year 2000.
- ◆ Repower Gannon Station with natural gas by December 31, 2004.
- ◆ Install Selective Catalytic Reduction technology on the repowered Gannon units to achieve an emission rate for nitrogen oxides (NO_x) of 3.5 parts per million by December 31, 2004.
- ◆ Install retrofit NO_x controls, repower or shut down Big Bend Units 1&2 by the year 2007.
- ◆ Install retrofit NO_x controls, repower or shut down Big Bend Units 3&4 by the year 2010.
- ◆ Spend up to \$8 million to control NO_x emissions with non-ammonia control technology or other combustion controls by December 31, 2004.
- ◆ Perform Best Available Control Technology analysis and optimization of the Big Bend Station electro-static precipitators by the year 2003.
- ◆ Install continuous emission measuring equipment for particulate matter on one Big Bend stack by May 1, 2003.
- ◆ Pay \$2 million into the Tampa Bay Estuary (BRACE) program by year end 2002.
- ◆ Not sell NO_x emission allowances if such allowances are established by state or federal law.

On December 23, 1999, TECO filed a petition for Commission approval of its plan to comply with the Clean Air Act (Docket No. 992014-EI). TECO's proposed Clean Air Act compliance plan outlined the implementation requirements and timetables of the CFJ.

However, the EPA lawsuit remained unresolved even though TECO and DEP had reached settlement. TECO continued independent negotiations with the EPA to resolve the EPA's concerns. On February 29, 2000, TECO and the EPA signed a settlement agreement (Consent Decree). The Consent Decree was filed with the U.S. District Court in Tampa on February 29, 2000. The notice of the Consent Decree was published in the Federal Register on March 20,

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2000, Volume 65, No.54. The Consent Decree as has not been entered as of October 2, 2000.

The Consent Decree includes the requirements of the CFJ, but modifies some of the CFJ compliance dates, provides more explicit instructions than the CFJ and goes beyond the CFJ in three areas. The three additional requirements of the Consent Decree are: a)TECO is prohibited from banking or selling SO₂ emission allowances; b)TECO is required to pay a one-time civil penalty of \$3.5 million; and, c)TECO is required to spend up to \$9 million on innovative or other combustion controls to reduce NO_x emissions at the Big Bend Station.

After TECO signed the Consent Decree with the EPA, TECO filed with the Commission a Voluntary Dismissal and Withdrawal of its petition in Docket No. 992014-EI on March 1, 2000. The Commission closed Docket No. 992014-EI by Order PSC-000-0817-PAA-EI, issued April 25, 2000 without addressing TECO's proposed plan to implement the CFJ.

On June 2, 2000, TECO petitioned for approval of cost recovery of the Big Bend Units 1, 2, and 3 Flue Gas Desulfurization System Optimization and Utilization Program (FGD Plan) through the Environmental Cost Recovery Clause (ECRC), Section 366.8255, Florida Statutes. During the September 5, 2000 Agenda Conference, the Commission found that the FGD Plan qualified for recovery through the ECRC.

On August 18, 2000, TECO petitioned for approval of cost recovery of two programs, the "Particulate Emission Minimization and Monitoring Program" (PM Program) and the "Reduction of Nitrogen Oxide Emissions Program at Big Bend Units 1, 2 and 3" (NO_x Program) through the ECRC. TECO also seeks to include the actual year 2000 expenditures for these programs in the company's 2000 true-up amounts in the ECRC. TECO states that both the PM Program costs and the NO_x Program costs will be allocated to rate classes on an energy basis because the programs are Clean Air Act compliance activities.

On August 18, 2000, TECO submitted its Direct Testimony and Exhibits for the ECRC true-up period January 2000 through December 2000 in Docket No. 000007-EI. TECO's exhibits for the cost recovery clause include costs for the PM program and the NO_x program.

Jurisdiction over the subject matter of this petition is vested in the Commission by Section 366.8255, Florida Statutes. Order No. PSC-94-0044-FOF-EI, issued January 12, 1994 in Docket No. 930613-EI, sets forth the criteria the Commission uses to administer Section 366.8255, Florida Statutes. Under the Commission's interpretation of the statute, the Commission must first determine whether the project is eligible for recovery through the ECRC before cost recovery occurs. The Commission also set filing requirements for each petition for new ECRC programs by Order No. PSC-99-2513-FOF-EI, issued December 22, 1999, in Docket No. 990007-EI. Therefore, pursuant to Order No. PSC-94-0044-FOF-EI, Order No. PSC-99-2513-FOF-EI, and Section 366.8255, Florida Statutes, the instant docket was opened to address the eligibility of TECO's PM Program and NO_x Program for recovery through the ECRC.

DISCUSSION OF ISSUES

ISSUE 1: Is Tampa Electric Company's Particulate Emission Minimization and Monitoring Program (PM Program) eligible for cost recovery through the ECRC?

RECOMMENDATION: Yes. (Breman, D.Lee, McNulty, E.Draper, P.Lee, Slemkewicz, Stern)

STAFF ANALYSIS: The criteria used by the Commission to determine if costs are recoverable through the ECRC are in Order No. PSC-94-0044-FOF-EI, as follows:

1. Such costs were prudently incurred after April 13, 1993;
2. the activity is legally required to comply with a governmentally imposed environmental regulation enacted, became effective, or whose effect was triggered after the company's last test year upon which rates are based; and,
3. such costs are not recovered through some other cost recovery mechanism or through base rates. (p. 6-7)

Order No. PSC-99-2513-FOF-EI, issued December, 22, 1999, in Docket 990007-EI, incorporated the three ECRC criteria identified above into minimum filing requirements for approval of recovery of new program costs through the ECRC. The minimum filing requirements for an ECRC petition are:

1. Identification of the specific environmental law(s) or regulation(s) requiring the proposed activity or project;
2. a description of the proposed environmental compliance activity;
3. the associated projected environmental compliance costs; and,
4. an adjustment for the level of costs currently being recovered through base rates or other rate-adjustment clauses must be included in the filing. (p. 6)

A discussion of each of the four filing requirements is presented in sections (1), (2), (3), and (4) respectively. This discussion is followed by a section which addresses other matters in TECO's petition related to cost recovery schedules and rate impacts. The final section is a summary statement recommending that the Commission find TECO's PM Program eligible for cost recovery through the ECRC.

(1) Identification of the specific environmental law(s) or regulation(s) requiring the proposed activity or project

TECO's petition, at Paragraphs 6 and 7, identifies the PM Program as a specific requirement of the CFJ at Section V.(F) and a specific requirement of the Consent Decree at Paragraph 32.

Paragraph 32(A) of the Consent Decree requires TECO to provide the EPA with a Best Operational Practices (BOP) study to reduce particulate matter emissions at the Big Bend Station. The BOP study must be completed within 12 months of the entry of the Consent Decree. The BOP study will only address operation and maintenance practices to minimize particulate emissions from the existing electrostatic precipitators at Big Bend Station. TECO

will have 60 days to implement any changes recommended by the BOP study after the EPA approves TECO's study.

The Consent Decree, at Paragraph 32(B), also requires a BACT analysis addressing any necessary upgrades to the existing electrostatic precipitators at the Big Bend Station to reduce PM emissions. This analysis must be completed within 12 months of the entry of the Consent Decree. The EPA will review TECO's BACT analysis for approval. TECO must implement the recommendations made by the EPA approved BACT analysis by May 1, 2004.

TECO's settlement with the DEP similarly requires TECO to perform a BOP study and a BACT analysis. Section V.(F) of the CFJ requires TECO to implement the BOP study and BACT analysis recommendations by May 1, 2003. The DEP's compliance dates are one year earlier than the EPA's. TECO is planning to meet the more conservative compliance date of May 1, 2003.

Staff believes that TECO's petition satisfies the minimum filing requirement to identify the specific law requiring TECO to implement the PM Program. Staff also believes that TECO's PM project satisfies the ECRC criterion that the proposed activity was legally required after April 13, 1993.

(2) Description of the proposed environmental compliance activity

The PM Program consists of a BOP study and a BACT analysis. TECO's petition explains that both efforts are directed at improving the availability and efficiency of the existing electrostatic precipitators in removal of dust-sized particles from the flue gases at Big Bend Station. The BOP study will highlight operational changes that will reduce PM emissions while the BACT analysis will focus on upgrading the existing precipitators to further reduce PM emissions. TECO's petition, at Paragraph 8, indicates that a second BOP study is expected once the precipitator upgrades recommended by the BACT analysis are completed. However, at this time, TECO is only requesting recovery of the costs for the first BOP study, BOP study implementation, and BACT analysis.

Based on the foregoing analysis, staff believes TECO's petition adequately describes the proposed environmental compliance activities as required by the minimum filing requirements. Based on TECO's representation of its actions taken to date, staff believes TECO has been prudent with respect to the program.

(3) The associated projected environmental compliance costs

TECO's petition addresses PM Program cost in Paragraphs 9, 10, and 11, as well as in Exhibit A to its petition. The projected cost for the BOP study is \$125,000. The BOP study is a projected operating and maintenance (O&M) expense for Calendar Year 2000. The BOP study will be performed by the Electric Power Research Institute and the Southern Research Institute. TECO included an estimated cost to implement the BOP study of \$650,000 in O&M expenses and \$105,000 for capital expenditures to be incurred between August 2000 and December 2001.

The BACT analysis will take longer than the BOP study because a BACT analysis often requires inspection of the electrostatic precipitators, and such inspections can only be performed during power plant outages. At this time, TECO's BACT analysis cost estimate only includes efforts at Big Bend Units 1 and 2. BACT analysis at Big Bend Unit 1 is scheduled to begin in November 2000, and at Big Bend Unit 2 in April 2001. The estimated cost for BACT analysis on Big Bend Units 1 and 2 is \$1,325,000 to be incurred between August 2000 and December 2001. Staff received clarification that the BACT analysis costs will not be expensed, but capitalized. This is a standard practice when engineering analysis efforts directly precede equipment upgrades or replacements.

Based on the foregoing analysis, staff believes TECO's petition adequately describes the projected environmental compliance costs as required by the Commission's ECRC filing requirements.

(4) An adjustment for the level of costs currently being recovered through base rates or other rate-adjustment clauses must be included in the filing

The purpose of this ECRC criterion is to ensure that the environmental compliance costs are incremental to those used in setting current base rates.

TECO's current base rates were set in Docket No. 920324-EI. That rate case addressed the cost of operating and maintaining the existing electrostatic precipitators at their current level of performance. The requirement to implement the PM Program did not

exist when TECO's base rates were last set. Therefore, the PM Program costs were not considered when TECO's base rates were set.

No adjustment for the level of costs currently being recovered through base rates was included in TECO's petition. However, staff believes no adjustment is necessary.

Based on TECO's explanation of the PM Program, this activity is legally required to comply with a governmentally imposed environmental regulation which became effective after the last test year upon which current rates are based.

(5) Cost recovery schedules

In Paragraph 22 of its petition, TECO proposes to allocate the cost of the PM Program to the rate classes on an energy basis because TECO believes the program is a Clean Air Act compliance activity. The Commission determined in 1994 that costs for Clean Air Act compliance activities should be allocated to rate classes on an energy basis. This has been Commission practice since the guidelines were established in Order No. PSC-94-0393-FOF-EI, issued April 6, 1994, in Docket No. 940042-EI. Such program implementation issues are typically addressed in the ongoing ECRC proceedings. Therefore, it is not necessary to decide this issue at this time.

(6) Conclusions

Based on the foregoing review of TECO's PM Program, application of the Commission's ECRC criteria to TECO's PM Program, and the Commission's filing requirements for petitioning for recovery of new projects through the ECRC, staff recommends that the Commission find the PM Program eligible for cost recovery through the ECRC.

ISSUE 2: Is Tampa Electric Company's Reduction of Nitrogen Oxide Emissions Program at Big Bend Units 1, 2, and 3 (NO_x Program) eligible for cost recovery through the ECRC?

RECOMMENDATION: Yes. (Breman, D.Lee, McNulty, E.Draper, P. Lee, Slemkewicz, Stern)

STAFF ANALYSIS: The criteria used by the Commission to determine if costs are recoverable through the ECRC are listed in Issue 1. Also listed in Issue 1 are the Commission's minimum filing requirements for an ECRC petition.

Staff's discussion of TECO's NO_x Program follows each of the four filing requirements in Sections (1), (2), (3), and (4) respectively. This discussion is followed by a section which addresses other matters in TECO's petition related to cost recovery schedules and rate impacts. The final section is a summary statement recommending that the Commission find TECO's NO_x Program eligible for cost recovery through the ECRC.

(1) Identification of the specific environmental law(s) or regulation(s) requiring the proposed activity or project

TECO's petition identifies several NO_x emission reduction related activities required by the DEP and the EPA. TECO clarified that, at this time, the only NO_x activity costs for which it seeks recovery is the NO_x emission reduction program at Big Bend Units 1, 2 and 3 pursuant to Paragraph 35 of the Consent Decree. Paragraph 35 states "On or before December 31, 2001, Tampa Electric shall submit to the EPA for review and comment a plan to reduce NO_x emissions from Big Bend Units 1, 2 and 3, through the expenditure of up to \$3 million Project Dollars on combustion optimization using commercially available methods, techniques, systems, or equipment, or combinations thereof." TECO is required to implement the plans on or before December 31, 2002.

The other NO_x emission reduction activities identified in TECO's petition can be classified as technology demonstration activities. TECO is not seeking cost recovery of any technology demonstration activity costs at this time. Section V of the CFJ requires TECO to spend up to \$8 million to demonstrate alternative commercially viable NO_x reduction technologies for natural gas-fired or coal fired generating facilities as determined by the DEP and Tampa Electric. Paragraph 52 of the Consent Decree has a

similar requirement. The Consent Decree requires the demonstration of innovative NO_x control technologies and/or the reduction of the NO_x emission rate for any Big Bend Station coal-combusting unit below the lowest rate otherwise applicable to it. TECO plans for such activities must be submitted to EPA at least three years prior to incurring any project costs. In addition, Paragraph 52 request TECO to spend not more than \$2 million assisting the DEP in air chemistry work in Tampa Bay Estuary. Paragraph 50 of the Consent Decree sets a total expense level of \$10 to \$11 million for the combined costs of the alternative NO_x technology demonstration activity, air chemistry work in Tampa Bay Estuary, and the NO_x Program.

Staff believes TECO's NO_x Program satisfies the ECRC criteria that the proposed activity was legally required after April 13, 1993. TECO's petition satisfies the minimum filing requirement to identify the specific law requiring TECO to implement the NO_x Program.

(2) Description of the proposed environmental compliance activity

TECO explains that the NO_x Program consists of two activities. One activity is installation of a neural network system on Big Bend Units 1 and 2. The proposed neural network system is a computerized expert system which will aid NO_x reduction by providing real-time optimization of the coal combustion process inside the boiler. The second activity consists of enhancements to other boiler internal components to reduce NO_x emissions from Big Bend Units 1, 2, and 3. Boiler enhancement activities on Big Bend Units 1 and 2 are projected to be completed by September 2001. These activities are projected to achieve at least a 30% NO_x emission reduction at Big Bend Units 1 and 2 and at least a 15% NO_x emission reduction at Big Bend Unit 3 based on 1998 emissions data. The Consent Decree requires TECO to implement all aspects of the NO_x Program on or before December 31, 2002.

Based on the foregoing analysis, staff believes TECO's petition adequately describes the proposed environmental compliance activities as required by the minimum filing requirements. Based on TECO's representation of its actions taken to date, staff believes TECO has been prudent with respect with respect to the program.

(3) The associated projected environmental compliance costs

TECO's petition, in Paragraphs 17, 18, and Exhibit B, presents projected NO_x Program costs for the period August 2000 through December 2001. The projected cost for the neural network systems on Big Bend Units 1 and 2 is \$465,000. TECO anticipates soliciting bids for key elements of the expert system, however, TECO's staff will perform much of the engineering. The projected costs for enhancements to the boilers' internal components of Big Bend Units 1 and 2 are \$590,000 in capital and \$50,000 in O&M expenses for boiler tuning. Performing similar retrofits on the Big Bend Unit 3 boiler internals will cost approximately \$300,000.

TECO's petition only addresses the NO_x emission reductions activities at Big Bend Units 1, 2 and 3 pursuant to Paragraph 35 of the Consent Decree as outlined above.

Based on the foregoing analysis, staff believes TECO's petition adequately describes the projected environmental compliance costs as required by the minimum filing requirements.

(4) An adjustment for the level of costs currently being recovered through base rates or other rate-adjustment clauses must be included in the filing

The purpose of this ECRC criterion is to ensure that the environmental compliance costs are incremental to those used in setting current base rates.

TECO's current base rates were set in Docket No. 920324-EI. The 1992 rate case did not address the cost of the proposed neural network system and the proposed boiler internal modifications. The requirements to implement the NO_x Program began in Calendar Year 2000. Therefore, the NO_x Program costs were not considered when TECO's base rates were set.

No adjustment for the level of costs currently being recovered through base rates was included in TECO's petition. However, staff believes no adjustment is necessary.

Based on TECO's explanation of the NO_x Program, this activity is legally required to comply with a governmentally imposed environmental regulation which became effective after the last test year upon which current rates are based.

(5) Cost recovery schedules

Paragraph 22 of TECO's Petition states that TECO proposes to allocate the cost of the NO_x Program to the rate classes on an energy basis because TECO believes the program is a Clean Air Act compliance activity. The Commission determined in 1994 that costs for Clean Act Compliance Activities should be allocated to rate classes on an energy basis. This has been Commission practice since the guidelines were established in Order No. PSC-94-0393-FOF-EI, issued April 6, 1994, in Docket No. 940042-EI. Such program implementation issues are typically addressed in the ongoing ECRC proceedings. Therefore, it is not necessary to decided this issue at this time.

(6) Conclusions

Based on the foregoing review of TECO's NO_x Program, application of the Commission's ECRC criteria to TECO's NO_x Program, and the Commission's filing requirements for petitioning for recovery of new projects through the ECRC, staff recommends that the Commission find the NO_x Program eligible for cost recovery through the ECRC.

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ISSUE 3: 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 proposed agency action 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 of the date of issuance of the Consummating Order, this docket should be closed upon the issuance of the Consummating Order.