

ORIGINAL



TAMPA ELECTRIC

TAMPA ELECTRIC COMPANY

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 992014-EI

TESTIMONY

OF

THOMAS L. HERNANDEZ

DOCUMENT NUMBER-DATE

██████████ JAN 27 8

FPSC-RECORDS/REPORTING

BEFORE THE PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

THOMAS L. HERNANDEZ

1
2
3
4
5
6 Q. Please state your name, address and occupation.

7
8 A. My name is Thomas L. Hernandez. My business address is
9 702 North Franklin Street, Tampa, Florida 33602. I am
10 Vice President, Regulatory Affairs for TECO Energy, Inc.,
11 the corporate parent of Tampa Electric Company ("Tampa
12 Electric" or "company").

13
14 Q. Please provide a brief outline of your educational
15 background and business experience.

16
17 A. I graduated from Louisiana State University in 1982 with
18 a Bachelor of Science degree in Chemical Engineering. My
19 responsibilities at Tampa Electric have included
20 engineering and management positions in Production,
21 Generation Planning, Energy and Market Planning, and
22 Fuels and Environmental Services. I was named Vice
23 President, Regulatory Affairs for TECO Energy in March
24 1998.

1 Q. Have you previously testified before the Florida Public
2 Service Commission ("Commission")?

3
4 A. Yes. I testified before this Commission in the last
5 annual planning hearing Docket No. 910004-EU. I also
6 provided a description of Tampa Electric's planning
7 process during a Commission Staff workshop conducted in
8 March 1994. I also submitted testimony in Docket No.
9 930551-EI, which was the numeric conservation goal
10 proceeding for Tampa Electric. I testified in Docket No.
11 960409-EI regarding the prudence of Polk Unit One and in
12 Docket No. 980693-EI regarding the company's flue gas
13 desulfurization ("FGD") system for Big Bend Units 1 and
14 2. Most recently I testified in Docket No. 990001-EI
15 regarding the appropriate treatment for a wholesale
16 agreement between Tampa Electric and the Florida
17 Municipal Power Agency, and the appropriateness of
18 incentives for certain types of wholesale sales.

19
20 Q. What is the purpose of your testimony?

21
22 A. The purpose of my testimony is to explain what Tampa
23 Electric is requesting in this proceeding and why it is
24 appropriate for this Commission to approve Tampa
25 Electric's Comprehensive Clean Air Act Compliance Plan

1 ("Compliance Plan"), including the repowering of Gannon
2 Station from coal to natural gas ("Gannon Repowering
3 Project"), as the optimal and most cost-effective means
4 for Tampa Electric to bring its generating facilities
5 into compliance with applicable air emissions
6 requirements. I also provide an estimate for the cost of
7 implementation of the Compliance Plan to Tampa Electric's
8 customers.

9
10 Q. What is Tampa Electric requesting of the Commission in
11 this proceeding?

12
13 A. Tampa Electric requests that the Commission 1) find the
14 company's Compliance Plan, which implements the CFJ
15 including the repowering of Gannon Station from coal to
16 natural gas, to be reasonable, prudent and in the public
17 interest and 2) determine that certain activities
18 required by the CFJ are the types of activities that
19 qualify for recovery through the Environmental Cost
20 Recovery Clause ("ECRC"). The company is not requesting
21 any cost recovery at this time. Cost recovery for
22 specific projects to comply with environmental
23 regulations may be filed in subsequent petitions for
24 temporary or permanent rate increase, or for recovery of
25 discrete portions of such projects through the ECRC.

1 Q. Please describe Tampa Electric's Compliance Plan.
2
3 A. As described in detail in the direct testimony of Tampa
4 Electric witness Gregory M. Nelson, Tampa Electric
5 developed its Compliance Plan to meet requirements of the
6 Clean Air Act ("CAA"). Tampa Electric has always
7 followed the requirements of the CAA and has previously
8 provided the Commission with its strategy to meet the
9 Phase I and II sulfur dioxide ("SO₂") and nitrogen oxide
10 ("NO_x") emissions reduction requirements. The Commission
11 has approved Tampa Electric's requests to recover
12 environmental compliance costs associated with several of
13 these projects.
14
15 Tampa Electric's Compliance Plan describes the company's
16 compliance activities related to SO₂, NO_x, particulate
17 matter, and air toxics along with other potential future
18 compliance issues, fuel source issues, and regulatory
19 compliance dates and estimated costs. The Compliance
20 Plan also describes the "Gannon Resource Utilization
21 Study" which is a detailed analysis used to compare the
22 economics of repowering Gannon Station, which is required
23 by the CFJ, to other viable alternatives. The study is
24 included in the direct testimony of Tampa Electric
25 witness Mark D. Ward.

1 Q. Why did Tampa Electric file its Compliance Plan now?

2
3 A. The company recently filed its Compliance Plan as the
4 result of new environmental requirements it is obligated
5 to meet over the next ten years. Since early 1999, Tampa
6 Electric has been in negotiations with the U. S.
7 Environmental Protection Agency ("EPA") trying to reach a
8 mutually acceptable settlement to develop a long-range
9 environmental strategy for Tampa Electric. When this did
10 not happen and EPA filed suit against the company, the
11 state of Florida, through DEP, became involved, as was
12 its right and duty as the agency with primary
13 responsibility for implementation and enforcement of the
14 environmental emissions standards in question.

15
16 The DEP was proactive and worked with Tampa Electric in
17 developing an agreement that clarified the agency's
18 emissions reduction policy it desired and its
19 expectations of Tampa Electric. As a result and through
20 the requirements of the CFJ, the company will be able to
21 accomplish very positive environmental improvements while
22 having the ability to reliably serve customers' growing
23 demand for electricity. In committing to the CFJ, Tampa
24 Electric has been able to settle what surely would
25 otherwise have been protracted and very costly

1 environmental litigation.

2
3 Q. What process did Tampa Electric follow to ensure its
4 Compliance Plan was reasonable, prudent and in the public
5 interest?

6
7 A. Tampa Electric has established reasonable and sufficient
8 guidelines and procedures that ensure its customers of
9 the most cost-effective environmental compliance actions.
10 These guidelines and procedures have been used in
11 evaluating environmental compliance alternatives for
12 Phase I and Phase II activities, along with other company
13 resource planning activities. They were also used in the
14 company's most recent activities with the DEP.

15
16 Specifically, the company utilized its integrated
17 resource planning process ("IRP") to compare viable
18 alternatives that met Tampa Electric's environmental
19 compliance requirements along with its system reliability
20 requirements. The analytical tools and procedures that
21 comprise the IRP process have been reviewed extensively
22 by this Commission in numerous proceedings.

23
24 Q. What process did Tampa Electric follow to ensure that
25 repowering Gannon Station is the most prudent and

1 cost-effective alternative?
2

3 A. Tampa Electric utilized its IRP process to determine the
4 most cost-effective alternative to replace power
5 generated by the coal-fired units at Gannon Station.
6 This process is discussed in detail in the direct
7 testimony of Mr. Ward. The economic comparison of
8 multiple alternatives provide the Commission assurance
9 about the reasonableness and prudence of the Gannon
10 Repowering Project.
11

12 Q. Was this process complete and appropriate given the
13 company did not issue a Request for Proposal ("RFP") to
14 either replace all or a portion of Gannon Station's
15 capacity?
16

17 A. Absolutely. First of all, there is no existing
18 requirement that Tampa Electric issue an RFP for a
19 repowering project. The Gannon Repowering Project will
20 not increase the station's steam generating capacity and,
21 therefore does not fall under the requirements of the
22 Power Plant Siting Act ("PPSA"). Secondly, issuing an
23 RFP is impractical given that the DEP requirements
24 outlined in the CFJ are specific to Tampa Electric.
25 Finally, the RFP process and all related activities would

1 take too long, would be too uncertain, and would have a
2 high risk that Tampa Electric would not meet its
3 emissions requirements. In any event, the additional
4 costs that would be borne by a third party to provide
5 replacement power would be prohibitive.
6

7 Q. Why would issuing an RFP be impractical given the DEP's
8 requirements outlined in the CFJ?
9

10 A. An RFP process is not part of the CFJ that resulted in
11 resolution of very significant environmental issues with
12 DEP. The settlement that Tampa Electric was able to
13 reach with DEP calls for Tampa Electric to be responsible
14 for and carry out the full and effective execution of a
15 carefully negotiated package of important environmental
16 activities designed to bring Tampa Electric's generating
17 facilities into compliance with DEP enforced emissions
18 limitations. Tampa Electric, and only Tampa Electric, is
19 responsible for complying with the CFJ. Tampa Electric
20 cannot shift this responsibility to a third party nor
21 would DEP hold anyone other than Tampa Electric
22 accountable if a third party failed to properly implement
23 some hypothetical alternative to the CFJ.
24

1 It is important to recognize that the CFJ embodies the
2 settlement of what would otherwise have been protracted
3 and very costly environmental litigation with a sister
4 agency. This Commission has a long-standing policy of
5 encouraging utilities to settle disputes when possible.
6 Tampa Electric's settlement with DEP represents what we
7 believe is the best arrangement to meet environmental
8 compliance requirements while serving our customers
9 reliably and cost effectively. To attempt to interject
10 an RFP process into those negotiations could have
11 collapsed the negotiations and exposed Tampa Electric and
12 its customers to the uncertainties and expense of
13 continued litigation.

14
15 Q. Please explain why the RFP process and all related
16 activities would take too long and Tampa Electric would
17 not meet its reduced emissions requirements.

18
19 A. The bidding process time frame described by the
20 Commission Staff in its recommendation issued in this
21 docket on January 12, 2000 is unrealistic even without
22 considering the complexities of Tampa Electric's
23 environmental compliance requirements. Staff suggested a
24 90-day window was adequate to develop and issue an RFP,
25 process any viable responses, and submit Tampa Electric's

1 findings to the Commission. The time frame may be
2 realistic if Tampa Electric were simply bidding for
3 supplemental energy through a purchased power agreement
4 but it ignores significant transmission costs and
5 operational constraints. These key transmission
6 considerations are described in detail in the direct
7 testimony of Tampa Electric witness Gregory J. Ramon.
8 The time frame also ignores the fact that the Gannon
9 Repowering Project is an integral part of a complex
10 settlement of environmental litigation as I previously
11 discussed.

12
13 Q. Are there other factors that should also be considered
14 with respect to any hypothetical purchased power
15 alternative to the Gannon Repowering Project?

16
17 A. Yes. In addition to all of the reasons why issuing an
18 RFP is impractical in this instance, the results could
19 have significant ramifications relative to Florida's
20 current regulatory policy. If, as the result of an RFP,
21 Tampa Electric were forced to purchase all or a portion
22 of its Gannon Station capacity, in effect, it would be
23 forced to divest that asset. There would be other
24 significant costs that would need to be considered
25 including stranded asset cost recovery, accelerated

1 dismantling costs, transfer of environmental compliance
2 liabilities and associated insurance costs to indemnify
3 Tampa Electric of its newly-imposed environmental
4 compliance requirements. Tampa Electric has not yet
5 quantified these costs because it strongly believes this
6 is not a viable alternative for meeting DEP's
7 requirements, but these costs would be significant.

8
9 **Q.** Has Tampa Electric made an effort to keep the Commission
10 informed of its environmental compliance activities?

11
12 **A.** Yes. The company has provided periodic updates on its
13 environmental compliance activities to the Commission in
14 formal proceedings since as early as 1993 because it owns
15 and operates generating units that are affected by the
16 provisions of Sections 404 and/or 405 of the Clean Air
17 Act ("the Act"), as amended in 1990.

18
19 In January 1994, Tampa Electric reviewed detailed studies
20 with the Commission related to how the company planned to
21 comply with Phase I of Title IV of the Act which began on
22 January 1, 1995 for SO₂ emissions and January 1, 1996 for
23 NO_x emissions and ending on December 31, 1999. The
24 company provided sufficient detail to support its
25 compliance plan that consisted of fuel blending,

1 allowance purchases and integration of Big Bend Unit 3
2 with the existing Big Bend 4 FGD system.
3

4 Phase II of Title IV of the Act requires further
5 reductions of SO₂ and NO_x emissions of Tampa Electric's
6 generating system. Tampa Electric's Phase II SO₂
7 compliance strategy included construction of a new FGD
8 system to serve Big Bend Units 1 and 2, and the use of
9 fuel blending and SO₂ allowance purchases. These
10 activities were reviewed in detail in Docket No. 980693-
11 EI in which the Commission determined that the Big Bend
12 Units 1 and 2 FGD system was the most cost-effective
13 alternative available for SO₂ compliance and granted the
14 company's request for cost recovery under the ECRC. Most
15 recently, the company kept the Commission updated to the
16 extent that it could, consistent with confidentiality
17 agreements, regarding the company's discussions with the
18 DEP and the EPA.
19

20 Q. Does the Commission have enough information to reach a
21 determination that the company's Compliance Plan, which
22 implements the CFJ including the repowering of Gannon
23 Station from coal to natural gas, is reasonable, prudent
24 and in the public interest?
25

1 A. Yes. Tampa Electric's Compliance Plan meets all of the
2 requirements of Section 366.825, Florida Statutes (1999).
3 Tampa Electric has performed its complete and prudent
4 process of determining the most cost-effective
5 alternatives given its requirements to meet more
6 stringent environmental requirements imposed by the CFJ.

7
8 Q. What is the estimated cost of implementation of the
9 Compliance plan to Tampa Electric's customers?

10
11 A. The estimated rate impact associated with the incremental
12 costs on a monthly residential 1,000 kWh bill for
13 projects included in the Compliance Plan that will be
14 implemented over the ten-year period is approximately a
15 two to three dollar average increase. This preliminary
16 estimate is based on the environmental project costs and
17 includes a combination of adjustments in the fuel and
18 environmental cost recovery clauses and base rates. The
19 company plans to make every effort possible to mitigate
20 any impact to customer prices by continuing to
21 effectively manage its costs.

22
23 Q. If, in the future, Tampa Electric does determine that it
24 is necessary to temporary or permanent rate relief,
25 when would that occur?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A. This would occur at a point in time closer to the commercial in-service date of each repowered unit.

Q. What environmental projects does Tampa Electric expect to seek recovery for through the ECRC?

A. As described by Mr. Nelson, Tampa Electric believes that all of the environmental projects required by the CFJ, except for the repowered generating facilities, are the types of projects that are eligible for recovery through the ECRC. As the company begins to evaluate each project individually, it will seek approval of these projects by way of separate petitions as the company has done with all of its environmental projects in the past.

Q. If the company plans to seek recovery in the future for these projects by way of separate petitions, why should the Commission make a determination at this time that these required CFJ environmental projects are the types of costs that are recoverable through the ECRC?

A. The Commission should determine that the costs of the specific projects are the types of costs that are recoverable through the ECRC in accordance with Section

1 366.8255, Florida Statutes (1999) to give Tampa Electric
2 reasonable assurance that the Commission considers the
3 company's commitment to these projects to be reasonable
4 and prudent. The Commission should make the
5 determination now rather than deferring this decision
6 because some activities required by those projects will
7 begin as early as this year and the Commission's policy
8 limits ECRC recovery to prospective costs. Consequently,
9 a delay in making this determination could preclude
10 recovery for already expended costs.

11
12 This Commission in its Order 94-1207-FOF-EI issued
13 October 3, 1994 In re: Environmental Cost Recovery
14 stated:

15 "Environmental compliance cost recovery, like
16 cost recovery through other cost recovery
17 clauses, should be prospective. . . . Utilities
18 may recover the costs of environmental compliance
19 projects after the Commission has the opportunity
20 to review and approve cost recovery for the
21 projects." (Emphasis by the Commission)

22
23 Q. What criteria does the Commission use to determine
24 whether a project is reasonable under the ECRC?

1 A. The criteria the Commission uses are addressed in two
2 Commission orders. First, Order No. PSC-94-1207-FOF-EI
3 provides, in part, that ". . . a utility's petition for
4 cost recovery must describe proposed activities and
5 projected costs, not costs that have already been
6 incurred."

7
8 Second, Order No. PSC-94-0044-FOF-EI enumerates the
9 following criteria for cost recovery:

- 10 1 such costs were prudently incurred after April 13,
11 1993;
- 12 2 the activity is legally required to comply with
13 governmentally imposed environmental regulation
14 enacted, became effective, or whose effect was
15 triggered after the company's last test year upon
16 which rates are based; and
- 17 3 such costs are not recovered through some other cost
18 recovery mechanism or through base rates.

19
20 Q. Do the environmental projects required by the CFJ, except
21 for the repowered generating facility, meet these
22 criteria and requirements?

23
24 A. Yes. All of the projects meet these criteria for cost
25 recovery under the ECRC. The projects' scope and

1 projected costs are described in more detail in Mr.
2 Nelson's direct testimony and are as follows:

- 3
4 • The Big Bend FGD optimization project requires Tampa
5 Electric to maximize scrubber utilization on all four
6 boilers at Big Bend. Tampa Electric's preliminary
7 expected capital costs for this project are \$3
8 million.
- 9
10 • The Big Bend Electrostatic precipitator ("ESP")
11 optimization study and monitoring project requires
12 Tampa Electric to undertake a performance
13 optimization study and a Best Available Control
14 Technology ("BACT") analysis of its ESPs and make
15 reasonable upgrades, if deemed necessary, based on
16 the study's results. Additionally, the CFJ requires
17 the installation of a continuous monitor on one of
18 the Big Bend stacks, if determined to be feasible.
19 Tampa Electric's preliminary expected capital costs
20 for this project are \$11 million.
- 21
22 • The innovative NO_x emission reduction technology
23 project requires Tampa Electric, in coordination with
24 DEP, to evaluate the cost-effectiveness and
25 commercial feasibility of certain NO_x reduction

1 technologies by May 2000. If the technology is
2 determined to be commercially feasible, Tampa
3 Electric must install the technology on one of the
4 repowered units or on another unit in Tampa
5 Electric's system. The projected capital costs are
6 expected to be \$8 million.

- 7
- 8 • The DEP's Bay Regional Air Chemistry Experiment or
9 BRACE project requires Tampa Electric to contribute
10 and participate in studies on nitrogen deposition in
11 Tampa Bay and its associated impacts. The projected
12 O&M costs are \$2 million.

- 13
- 14 • Gannon repowering selective catalytic reduction
15 system ("SCR") project requires Tampa Electric to
16 install NO_x control technologies on its repowered
17 units. The company must install the SCRs to meet a
18 NO_x emission level of 3.5 parts per million.
19 Accordingly the company will install six SCRs in 2003
20 and 2004. They are expected to cost approximately \$8
21 million in capital costs with annual O&M costs of
22 about \$1.1 million.

23

24 The CFJ also requires Tampa Electric to add NO_x controls,
25 repower or shut down Big Bend Units 1 through 3 by May

1 2010 and at Big Bend Unit 4 by May 2007. If SCRs are
2 installed, the CFJ specifies required reduced emission
3 levels. Because these requirements are a number of years
4 away and many of the factors that will affect the cost-
5 effectiveness of that decision may change, Tampa Electric
6 will evaluate the method for compliance with this
7 requirement by 2005. Accordingly, at this time, Tampa
8 Electric is not requesting the Commission determine that
9 the costs associated with this specific project are the
10 types of costs that are recoverable through the ECRC.

11
12 With regard to the criteria for cost recovery specified
13 in Order No. PSC-94-0044-FOF-EI:

14
15 1 Clearly the projected costs of each of these
16 projects will be incurred after April 13, 1993 since
17 they are newly-required by the CFJ;

18
19 2 Each of the activities listed here are required to
20 comply with the CFJ which became effective December
21 16, 1999 and which enforces environmental
22 regulations enacted of which became effective or
23 whose effect was triggered after the company's last
24 rate case upon which rates are based; and
25

1 3 The costs of these specific projects are not being
2 recovered through some other cost recovery mechanism
3 or through base rates since none of these projects
4 were in existence at the time of the company's last
5 rate case.

6
7 Q. Will Tampa Electric seek recovery of new generating plant
8 through the ECRC?

9
10 A. No. Tampa Electric intends to seek recovery of
11 construction costs and operating expenses of plant
12 equipment required for environmental compliance through
13 the ECRC and not equipment that has been traditionally
14 referred to as generating plant such as the combustion
15 turbines and heat recovery steam generators. While these
16 two plant components are integral to the Gannon
17 Repowering Project and the CFJ, Tampa Electric will not
18 seek recovery for the costs associated with these
19 components through the ECRC.

20
21 Q. Please summarize your testimony.

22
23 A. Tampa Electric requests that the Commission find the
24 company's Compliance Plan, which implements the CFJ
25 including the repowering of Gannon Station from coal to

1 natural gas, to be reasonable, prudent and in the public
2 interest. Tampa Electric has performed its complete and
3 prudent process of determining the most cost-effective
4 alternatives given its requirements to meet more
5 stringent environmental requirements imposed by the CFJ.
6 The company's Compliance Plan meets all of the
7 requirements of Section 366.825, Florida Statutes (1999).

8
9 Tampa Electric also requests that the Commission
10 determine that certain activities required by the CFJ are
11 the types of activities that qualify for recovery through
12 the ECRC. These projects meet the criteria established
13 by this Commission for eligibility for recovery. The
14 company is not asking for any rate relief in this
15 proceeding. Any request for cost recovery associated
16 with any of the activities called for in the Compliance
17 Plan will be made by way of separate petitions in future
18 proceedings.

19
20 Q. Does that conclude your testimony?

21
22 A. Yes, it does.
23
24
25