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January 27, 2000

BY HAND DELIVERY

Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Tampa Electric Company's Petition for Approval of its Plan to Bring its
Generating Units into Compliance with the Clean Air Act; Docket No. 992014-EI

Dear Ms. Bayo:

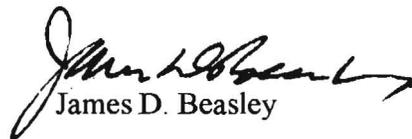
Enclosed for filing in the above-styled proceeding on behalf of Tampa Electric Company are the original and fifteen (15) copies of each of the following:

1. Prepared Direct Testimony of John B. Ramil 01210-00
2. Prepared Direct Testimony and Exhibit of Gregory M. Nelson 01211-00
3. Prepared Direct Testimony and Exhibit of Charles R. Black 01212
4. Prepared Direct Testimony and Exhibit of Mark D. Ward 01212-00
5. Prepared Direct Testimony and Exhibit of Howard T. Bryant 01213-00
6. Prepared Direct Testimony and Exhibit of Gregory J. Ramon 01214-00
7. Prepared Direct Testimony and Exhibit Mark J. Hornick 01215-00
8. Prepared Direct Testimony of Stephen L. Thumb 01216-00
9. Prepared Direct Testimony of Thomas L. Hernandez 01217-00

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning the same to this writer.

Thank you for your assistance in connection with this matter.

Sincerely,


James D. Beasley

JDB/bjd

Enclosures

cc: All Parties of Record (w/encls.)

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by hand delivery (*) or U. S. Mail this 27th day of January, 2000 to the following:

Ms. Grace A. Jaye*
Legal Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

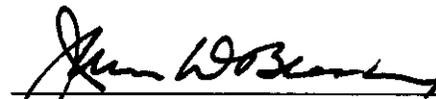
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ATTORNEY

ORIGINAL



TAMPA ELECTRIC

TAMPA ELECTRIC COMPANY

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 992014-EI

TESTIMONY

OF

JOHN B. RAMIL

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 PREPARED DIRECT TESTIMONY

3 OF

4 JOHN B. RAMIL

5
6 Q. Please state your name, address and occupation.

7
8 A. My name is John B. Ramil. My business address is 702 N.
9 Franklin Street, Tampa, Florida 33602. I am the
10 President of Tampa Electric Company ("Tampa Electric" or
11 "company").

12
13 Q. Please provide a brief outline of your educational
14 background and business experience.

15
16 A. I graduated from the University of South Florida in June
17 of 1978 with a Bachelor of Science degree in Engineering
18 and I am a candidate to recover a Master of Science in
19 Engineering degree in the spring of 2000. I am a
20 registered Professional Engineer in the State of Florida.
21 I joined Tampa Electric in March of 1976 as a cooperative
22 education student and began full-time employment with the
23 company in June of 1978. I was responsible for various
24 engineering assignments prior to being promoted to
25 Manager, Environmental Planning in 1982.

1
2 From 1982 until April 1994 I served in a series of
3 different management assignments including Manager,
4 Generation Planning; Manager, Fuel Planning and
5 Operations; Assistant Director, Power Resource Planning;
6 and Director, Resource Planning. In April 1994, I was
7 promoted to Vice President, Energy Services and was
8 responsible for the company's customer service, energy
9 services, bulk power and planning functions. In December
10 1997 I was promoted to Vice President and Chief Financial
11 Officer of TECO Energy. Since March 1998, I have served
12 as President of Tampa Electric.
13

14 Q. Have you previously testified before the Florida Public
15 Service Commission ("Commission")?
16

17 A. Yes, I have testified before this Commission on behalf of
18 Tampa Electric in a number of proceedings beginning in
19 1987.
20

21 Q. What is the purpose of your testimony?
22

23 A. The purpose of my testimony is to provide an overview of
24 Tampa Electric's Comprehensive Clean Air Act Compliance
25 Plan ("Compliance Plan") which includes a requirement to

1 comply with the Consent Final Judgement ("CFJ") entered
2 into between Tampa Electric and the Florida Department of
3 Environmental Protection ("DEP") in December 1999. I
4 will describe the conversion of Tampa Electric's Gannon
5 Station from coal to natural gas, a significant aspect of
6 the CFJ. I will clarify what Tampa Electric is
7 requesting of the Commission in this proceeding. Finally
8 I will outline the company's position on the
9 appropriateness of its Compliance Plan, which will be
10 presented in detail by various witnesses in this
11 proceeding.

12
13 **Q.** Please describe Tampa Electric's system.

14
15 **A.** Tampa Electric is engaged in the generation,
16 transmission, distribution, purchase, and sale of
17 electric energy. Tampa Electric serves over 543,000
18 retail customers in its service area of approximately
19 2,000 square miles in West Central Florida, including
20 Hillsborough and parts of Pasco, Pinellas, and Polk
21 counties, with a population of over one million people.
22 Tampa Electric's coal-fired units produced about 90
23 percent of its system energy requirements in 1998 and
24 1999. Total 1998 energy sales including wholesale sales
25 were 18,513 GWh.

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The company has six electric generating plants, five of which are currently in operation, with a total net winter generating capability of 3,615 MW, consisting of fossil steam units, combustion turbine peaking units, diesel units and an integrated gasification combined cycle unit. The six plants are Big Bend, Gannon, Hookers Point, Polk, Phillips, and Dinner Lake. Tampa Electric also has purchased power agreements totaling 150 MW.

Q. Are Tampa Electric's generating plants subject to environmental regulations?

A. Yes. Tampa Electric is required to meet federal, state and local environmental regulations and requirements.

Q. How has Tampa Electric assured compliance with these environmental regulations?

A. Tampa Electric's Environmental Planning Department is responsible for ensuring the company is meeting the requirements of applicable environmental laws and regulations. This includes compliance with the federal Clean Air Act. Tampa Electric's Compliance Plan describes these requirements, together with the actions

1 the company has taken to meet the requirements.

2
3 Q. Has Tampa Electric made any recent revisions to its
4 Compliance Plan?

5
6 A. Yes, the company has made changes to its Compliance Plan
7 based upon requirements imposed by the DEP and reflected
8 in the CFJ which requires Tampa Electric to undertake
9 substantial measures to reduce emissions in its service
10 area and have favorable impacts in surrounding areas.

11
12 Q. Please provide an overview of the major features of Tampa
13 Electric's environmental requirements contained in the
14 CFJ.

15
16 A. The CFJ requires Tampa Electric to remain in compliance
17 with applicable environmental emissions limitations and
18 resolves an enforcement proceeding brought by DEP while
19 improving the company's ability to reliably and cost-
20 effectively serve its customers' growing demand for
21 electricity. As I mentioned earlier, a major component
22 of the requirements under the CFJ is the conversion of
23 Tampa Electric's Gannon Station from coal to natural gas.
24 Coal-fired Gannon Units 1, 2 and 6 will be placed on
25 reserve status by year-end 2004, while Units 3, 4 and 5

1 will be repowered with new technology utilizing natural
2 gas. Tampa Electric is required to cease coal-fired
3 operations at Gannon Station after 2004. The repowered
4 plant will provide 1,475 MW of natural gas-fueled
5 electric energy by 2004. Tampa Electric's witness
6 Charles R. Black will describe the engineering and
7 construction schedule in more detail in his direct
8 testimony.

9
10 In addition to the conversion of Gannon Station to gas,
11 the CFJ requires the company to, over the next 10 years,
12 optimize its precipitators and flue gas desulfurization
13 systems at Big Bend Station; modify, shut down or repower
14 Big Bend Station to achieve lower NO_x emissions by 2010;
15 invest up to \$8 million in the development of innovative
16 NO_x technology that further reduces emissions; and
17 contribute \$2 million to the Bay Regional Air Chemistry
18 Experiment. The requirements of the CFJ are discussed
19 further in Tampa Electric witness Gregory M. Nelson's
20 direct testimony.

21
22 Q. What is Tampa Electric requesting of the Commission in
23 this proceeding?

24
25 A. Tampa Electric requests that the Commission 1) find the

1 company's Compliance Plan, which implements the CFJ
2 including the repowering of Gannon Station from coal to
3 natural gas, to be reasonable, prudent and in the public
4 interest and 2) determine that certain activities
5 required by the CFJ are the types of costs that are
6 recoverable through the Environmental Cost Recovery
7 Clause. We are not asking for any rate relief in this
8 proceeding, and will only do so later if necessary.

9
10 Q. What are the consequences to Tampa Electric if it fails
11 to proceed with its Compliance Plan?

12
13 A. It is absolutely essential for Tampa Electric to proceed
14 with the implementation of the requirements of the CFJ.
15 Failure to proceed with the implementation of the
16 Compliance Plan would delay very significant reductions
17 in SO₂ and NO_x emissions. The repowering of Gannon
18 Station is the centerpiece of a sensitive and carefully
19 balanced environmental settlement with the DEP.

20
21 Q. Is it important to proceed with implementation of Tampa
22 Electric's plan to repower Gannon Station?

23
24 A. Yes, most definitely. Tampa Electric strongly believes
25 its agreement with the DEP is prudent and will be

1 beneficial to the company's ratepayers, to Florida's
2 ratepayers and to Florida's environment. It is essential
3 to proceed with this project to settle environmental
4 issues and implement the CFJ, which provides a schedule
5 for quick action while assuming reliable electric supply
6 to our customers and the state. The company's approach
7 will be a cost-effective solution for customers; better
8 than options such as additional controls on coal-fired
9 generation or a greenfield generation site for reasons
10 described in Mr. Nelson's testimony. The environment
11 will benefit to the fullest through the emissions
12 reductions and the continued use of the Gannon site with
13 its existing infrastructure and minimized environmental
14 disruptions.

15
16 The CFJ with Florida resulted after months of discussions
17 with the U.S. Environmental Protection Agency ("EPA") and
18 the DEP throughout which it became abundantly clear that
19 these agencies are determined to require significant
20 emissions reductions for existing coal-fired power
21 plants. Once the EPA implemented its highly publicized
22 national initiative with lawsuits and notices of
23 violations, a 30-day window was triggered for the state
24 DEP, under its state implementation plan or SIP as its
25 called, to step in and seek a solution. To the credit of

1 the leadership of the State of Florida, the DEP stepped
2 in, in a proactive, solution-oriented manner and
3 clarified both the emissions reduction policy it desired
4 and its expectations of Tampa Electric. This agreement
5 with Florida was concluded late on the 30th day prior to
6 ceding its jurisdiction.

7
8 It is the company's intent to implement this agreement in
9 a responsible and cost-effective manner. We urge the
10 Commission's support of this settlement and the company's
11 Compliance Plan, which implements this settlement, by
12 finding it to be reasonable, prudent and in the public
13 interest.

14
15 Q. Please briefly summarize the subject-matter areas Tampa
16 Electric's witnesses will address.

17
18 A. As I mentioned earlier Mr. Nelson will address Tampa
19 Electric's Compliance Plan including, in detail, the
20 requirements imposed by the CFJ. Mr. Black will provide
21 a detailed overview of the engineering and construction
22 requirements and schedule for repowering Gannon Station.
23 His overview will include a description of the
24 engineering cost estimates and the construction timeline.

25

1 Mr. Mark D. Ward will explain the options Tampa Electric
2 considered as alternatives to repowering while still
3 meeting lower emission requirements. He will demonstrate
4 that the repowering of Gannon Units 3, 4 and 5 is the
5 company's most cost-effective alternative. Finally, he
6 will demonstrate the impact of repowering Gannon Station
7 on the company's generation expansion plan and its
8 planning reserve margin.

9
10 Mr. Gregory J. Ramon will discuss, in detail, the
11 essential nature of this project for effective use of the
12 existing transmission and distribution system of Tampa
13 Electric. Though not a condition of the CFJ, he will
14 show that the complete closure of this plant would have
15 significant impacts on Tampa Electric's system and other
16 systems in this state.

17
18 Mr. Mark J. Hornick will describe the fuel assumptions
19 used in the Compliance Plan analyses along with a
20 discussion of natural gas supply options for the
21 repowering project.

22
23 Mr. Stephen L. Thumb, a fuels expert with Energy Ventures
24 Analysis Inc., will discuss the appropriateness of Tampa
25 Electric's assumptions on fuel supply and pricing. He

1 will also discuss the availability of natural gas in
2 Florida.

3
4 Mr. Thomas L. Hernandez will describe what Tampa Electric
5 is requesting of the Commission in his direct testimony.
6 He will also describe a high-level, potential rate impact
7 to Tampa Electric's customers based upon CFJ
8 requirements. Finally, he will discuss various
9 regulatory policy matters and their applicability in this
10 proceeding.

11
12 Q. Please summarize your testimony.

13
14 A. Tampa Electric's Compliance Plan describes the company's
15 overall plan for achieving compliance with applicable
16 provisions of the Clean Air Act. The Compliance Plan
17 includes the implementation requirements of the CFJ. The
18 CFJ requires Tampa Electric to remain in compliance with
19 applicable environmental emissions limitations while
20 improving the company's ability to reliably and cost-
21 effectively serve its customers' growing demand for
22 electricity.

23
24 A major aspect of the requirements of the CFJ is the
25 conversion of Tampa Electric's Gannon Station from coal

1 to natural gas. Other requirements under the CFJ call
2 for various actions at Big Bend and Gannon Stations to
3 reduce SO₂, NO_x, and PM emissions. Finally, Tampa
4 Electric requests that the Commission find the company's
5 Compliance Plan, which implements the CFJ including the
6 repowering of Gannon Station from coal to natural gas, to
7 be reasonable and prudent.

8
9 Q. Does that conclude your testimony?

10
11 A. Yes it does.
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