

1 **APPEARANCES:**

2 **R. ALEXANDER GLENN**, Florida Power
3 Corporation, Post Office Box 14042, 3201 34th Street
4 South, St. Petersburg, Florida 33733, appearing on
5 behalf of **Florida Power Corporation**.

6 **ROBERT V. ELIAS** and **LESLIE J. PAUGH**, Florida
7 Public Service Commission, Division of Legal Services,
8 2540 Shumard Oak Boulevard, Tallahassee, Florida
9 32399-0870, appearing on behalf of the **Commission**
10 **Staff**.

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I N D E X

MISCELLANEOUS

ITEM	PAGE NO.
CERTIFICATE OF REPORTER	21

WITNESSES

NAME	PAGE NO.
LEE G. SCHUSTER Prefiled Direct Testimony Inserted	7

EXHIBITS

NUMBER		ID.	ADMTD.
1	Two pages of exhibits attached to prefiled direct testimony of Lee G. Schuster	6	6

P R O C E E D I N G S

(Hearing convened at 9:37 a.m.)

COMMISSIONER DEASON: Call the hearing to order. Could I have the notice read, please?

MS. PAUGH: Pursuant to notice issued August 29, 1997, this time and place have been set for this hearing in this Docket No. 971059-EI, petition to determine need for existing Tiger Bay Electrical Power Plant and nominal electrical capacity increase to that plant by Florida Power Corporation.

COMMISSIONER DEASON: Appearances.

MR. GLENN: Alex Glenn on behalf of Florida Power Corporation.

MS. PAUGH: Leslie Paugh on behalf of the PSC Staff.

MR. ELIAS: Bob Elias on behalf of the PSC Staff.

COMMISSIONER DEASON: Any preliminary matters?

MS. PAUGH: Yes, Commissioner. Members of the public who are not parties to this need determination have an opportunity to present testimony regarding the need for the plant and the associated facilities. I would recommend that we take that public comment at this time, if any.

1 **COMMISSIONER DEASON:** Let me ask. Are there
2 any members of the public who are here who wish to
3 testify on this matter?

4 Let the record reflect there are no
5 individuals who have identified themselves as members
6 of the public who wish to testify on this matter. Any
7 other preliminary matters?

8 **MS. PAUGH:** I believe it would be
9 appropriate to insert the testimony and exhibit. The
10 issues in this docket were -- proposed positions on
11 the issues in this docket were submitted to Staff
12 about a week ago. Staff revised those positions and
13 Florida Power Corporation has agreed with Staff's
14 revision, therefore, all of the issues in this docket
15 have been resolved.

16 **COMMISSIONER DEASON:** It is necessary to put
17 the direct testimony into the record; is that correct?

18 **MS. PAUGH:** For a complete record I would
19 recommend it.

20 **COMMISSIONER DEASON:** Okay. So at this time
21 you move the direct testimony of Lee G. Schuster be
22 inserted into the record as though read?

23 **MS. PAUGH:** That would come from Florida
24 Power Corporation.

25 **MR. GLENN:** Yes, I would move that testimony

1 of September 15, 1997, direct testimony and exhibits
2 of Lee G. Schuster, be moved into the record.

3 **COMMISSIONER DEASON:** Show that done without
4 objection. We need to identify the exhibits attached
5 to the prefiled testimony. There's two pages of
6 exhibits. They will be identified as Composite
7 Exhibit No. 1 and will be admitted into the record
8 without objection. That is the only piece of prefiled
9 testimony in this docket; is that correct?

10 **MS. PAUGH:** That is correct.

11 **MR. GLENN:** That is correct.

12 (Composite Exhibit 1 marked for
13 identification and received in evidence.)

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BEFORE THE PUBLIC SERVICE COMMISSION
Docket No. 971059-EI

DIRECT TESTIMONY OF
LEE G. SCHUSTER

1 Q. Please state your name and business address.

2 A. My name is Lee G. Schuster. My business address is Post Office Box
3 14042, St. Petersburg, Florida, 33733.

4

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by Florida Power Corporation (FPC) in the capacity of
7 Manager, Purchased Power Resources.

8

9 Q. Would you please describe your educational background and work
10 experience?

11 A. I graduated with a Masters Degree in Industrial Administration from
12 Purdue University in 1975 and I received a Bachelor's Degree in Chemical
13 Engineering from the University of South Florida in 1973. I began my
14 employment with FPC in 1980. Since then, I have held the following
15 positions: Corporate Planning Analyst, Corporate Budget Analyst, Director
16 of Corporate Budgets (Florida Progress), Director of Investor Relations
17 (Florida Progress), Corporate Planning Analyst, Principal Business Planning
18 Analyst, Senior Planning Analyst (Florida Progress) and Manager,
19 Purchased Power Resources. In my position as the Director of Corporate
20 Budgets, I was responsible for coordinating the development of subsidiary

1 budgets and financial plans as well as for the preparation of budgets and
2 financial plans for the holding company and on a consolidated basis for
3 Florida Progress. In my position as the Director of Corporate Relations,
4 I was responsible for investor relations and communications, stockholder
5 records, production of the annual report and relations with brokerage and
6 institutional analysts. In my various analyst positions, I have worked on
7 a wide variety of special projects at both FPC and Florida Progress.
8

9 **Q. What are the responsibilities of your present position as Manager of**
10 **Purchased Power Resources?**

11 **A. As Manager of Purchased Power Resources, my job responsibilities are**
12 **to administer FPC's cogeneration contracts in compliance with state and**
13 **federal laws and regulations, and performing activities such as negotiation**
14 **and financial analysis of contract changes, management of requests for**
15 **proposals, technical and financial analysis of proposed projects, and**
16 **providing information to and maintaining coordination with Florida Public**
17 **Service Commission ("FPSC") staff, FPC internal departments and**
18 **cogenerators.**
19

20 **Q. What is the purpose of your testimony and how is it organized?**

21 **A. The purpose of my testimony is to (1) generally describe the Tiger Bay**
22 **cogeneration facility, (2) outline FPC's involvement with the Tiger Bay**
23 **facility, (3) explain FPC's position that the FPSC has, for all practical**
24 **purposes, already determined the need for the Tiger Bay facility, and (4)**

1 explain FPC's position that a need exists for the nominal 10 - 12
2 megawatt capacity increase at the Tiger Bay facility.

3 My testimony is divided into the following sections:

4 I. Description of the Tiger Bay Project and Proposed Capacity Increase

5 II. Need for the Facility and the Nominal Capacity Increase

6
7 Q. Are you sponsoring any exhibits in this proceeding?

8 A. Yes. I am sponsoring Exhibit No. ^{COMP}1 (LGS-1), which is FPC's estimated
9 cost savings associated with the nominal 10 - 12 megawatt capacity
10 increase and was attached as Exhibit 4 to FPC's August 18, 1997
11 Petition.

12
13 Q. Please summarize your testimony.

14 A. Because FPC proposes to increase the electrical output from the existing
15 steam turbine over 75 megawatts, the Florida Department of
16 Environmental Protection (DEP) pursuant to Section 403.507, F.S., is
17 requiring that the facility be certified in accordance with the applicable
18 provisions of the Power Plant Siting Act (PPSA) -- including Section
19 403.519, which requires a need determination by the FPSC. To satisfy
20 this literal reading of the PPSA, FPC has submitted its August 18, 1997
21 Petition ("Petition").

22
23 As discussed more fully below, the FPSC has, as a practical matter,
24 previously determined the need for the Tiger Bay cogeneration facility's
25 electrical capacity in other dockets. Additionally, FPC's proposed use of

1 a nominal 10-12 megawatts of additional steam electric capacity (simply
2 by using steam currently vented and increasing steam pressure) at the
3 facility constitutes a de minimis increase in FPC's approximate 7,000
4 megawatt statewide capacity. The nominal capacity increase also would
5 impose no additional costs on the ratepayer, involve no additional
6 equipment or operational changes to the facility, and produce no
7 increased emissions or other environmental impact. FPC further
8 estimates that the fuel savings ratepayers will receive from this capacity
9 increase will exceed \$14.2 million over the next ten years. For these
10 reasons, FPC believes that the Commission should grant the Petition.

11
12 I. DESCRIPTION OF THE TIGER BAY PROJECT AND PROPOSED CAPACITY
13 INCREASE
14

15 Q. Where is the Tiger Bay facility located?

16 A. The Tiger Bay facility is located near Fort Meade in Polk County, Florida.
17 It is a cogeneration facility which supplies electricity to Florida Power and
18 thermal energy in the form of steam to US Agri-Chemicals Corporation
19 ("US Ag") for use in producing fertilizer products.

20
21 Q. When did the Tiger Bay plant become commercially operational?

22 A. The plant began delivering test energy to Florida Power in August 1994,
23 and had a commercial in-service date of January 1, 1995.

24
25 Q. Please describe the equipment configuration at Tiger Bay.

1 A. The combined cycle facility consists of a GE Frame 7001FA gas turbine
2 generator with a Deltak heat recovery steam generator and a condensing
3 GE steam turbine. The plant has an overall capacity of approximately
4 236 MW. Tiger Bay's facilities also include 230 kV step-up transformers
5 and circuit breakers which, technically, are treated as transmission
6 equipment.

7
8 Q. How is the Tiger Bay project currently owned?

9 A. Tiger Bay is currently owned by FPC. FPC acquired the Tiger Bay
10 cogeneration facility on July 15, 1997.

11
12 Q. Please describe how Florida Power became involved in the Tiger Bay
13 facility?

14 A. Between 1988 and 1991, Florida Power entered into five purchased
15 power agreements with cogeneration developers, which were ultimately
16 served by the Tiger Bay facility. The Commission reviewed and approved
17 those contracts and, in so doing, essentially determined that such
18 capacity was needed. These Orders were provided with FPC's Petition
19 as Exhibit 1. Tiger Bay Limited Partnership acquired the interests in
20 these five purchased power contracts by assignment from each of the
21 original qualifying facility entities. Consequently, Florida Power received
22 the electrical output of the Tiger Bay cogeneration facility.

23
24 On January 20, 1997, Florida Power agreed to purchase the Tiger Bay
25 facility from the Tiger Bay Limited Partnership and terminate the five

1 related purchased power agreements. Florida Power sought the
2 Commission's approval of the agreement, requested recovery of the
3 purchase price, and requested that the fuel expense associated with the
4 operation of the Tiger Bay facility be approved for recovery through the
5 Fuel Clause. Florida Power and two intervenors executed a stipulation,
6 which resolved all disputed issues. On June 9, 1997, the Commission
7 approved the stipulation providing for Florida Power's purchase of the
8 Tiger Bay facility and termination of the five purchased power contracts
9 stating that "the Stipulation reduces FPC's ratepayers' liability throughout
10 the remaining term of the [purchased power agreements and] . . .
11 represents a reasonable balance between potential ratepayer neutrality to
12 the transaction and encouragement of company contributions." See
13 Petition, Exhibit 3.

- 14
- 15 **Q.** What changes to the facility does Florida Power intend to make to
16 increase the plant's capacity?
- 17 **A.** As I noted above, the Tiger Bay cogeneration facility consists of a
18 combustion turbine and a steam turbine. Because the steam turbine was
19 specifically operated to not produce more than 75 megawatts, the plant
20 was not subject to the PPSA. Florida Power believes, however, that the
21 steam turbine is capable of producing an additional, nominal 10 - 12
22 megawatts. FPC, if allowed, will achieve this increase simply by changing
23 a computer program to alter the control set points on the steam turbine
24 and operate the system at a five percent (5%) increased pressure level.

1 II. NEED FOR THE TIGER BAY FACILITY AND THE NOMINAL CAPACITY
2 INCREASE
3

4 Q. Will Florida Power's Tiger Bay facility and the nominal 10 - 12 megawatt
5 steam electric capacity increase contribute to the electric system
6 reliability and integrity of Florida Power and Peninsular Florida?

7 A. Yes. The Commission, on several occasions, has acknowledged the need
8 for the capacity (and therefore the contribution to electric system
9 reliability and integrity) provided by the Tiger Bay cogeneration facility.

10
11 First, in its approval of Florida Power's five cogeneration contracts (which
12 were subsequently served by the Tiger Bay facility), the FPSC, for all
13 practical purposes determined the need for the capacity provided under
14 those contracts. See Petition, Exhibit 1. For example, in In re: Joint
15 petition for approval of cogeneration contract between Florida Power
16 Corporation and General Peat Resources, L.P., Docket No. 890915-EQ,
17 Order No. 22473 (Jan. 1, 1990), the FPSC approved FPC's cogeneration
18 contract stating that "there are indicated capacity needs from both a
19 utility and a statewide perspective in 1995." Implicit in this
20 determination was the Commission's confirmation that these contracts
21 contributed to the electric system reliability and integrity of FPC and
22 peninsular Florida.

23
24 Similarly, in its August 29, 1991, Order, the Commission approved FPC's
25 statewide generation expansion plans consisting of, among other things,
26 "500 MW of purchased power in 1995" In re: Planning Hearings

1 on Load Forecasts Generation Expansion Plans, and Cogeneration Prices
2 for Florida's Electric Utilities, Docket No. 910004-EU, Order No. 24989
3 (Aug. 29, 1991), a copy of which was appended to FPC's Petition as
4 Exhibit 2. This 500 megawatts included the purchased power from the
5 Tiger Bay cogeneration facility through the assignment of the purchased
6 power agreements from the individual cogeneration developers to Tiger
7 Bay Limited Partnership. Again, implicit in this determination, was the
8 FPSC's confirmation that the 500 megawatts contributed to FPC's and
9 the state's electric system reliability and integrity.

10
11 In its recent approval of Florida Power's purchase of the Tiger Bay
12 facility, the Commission, for all intents and purposes, again confirmed the
13 need for the facility, and -- as a practical matter -- that the facility
14 contributes to electric system reliability and integrity. In this regard,
15 removing Tiger Bay's 236 megawatts of generation from service would
16 immediately reduce reserve margins and therefore adversely affect
17 system reliability and integrity. Similarly, by adding 10 - 12 megawatts
18 of additional capacity, FPC will enhance reserve margins and contribute
19 to system reliability and integrity.

20
21 **Q. Will Florida Power's Tiger Bay facility and the nominal 10 - 12 megawatt**
22 **steam electric capacity increase contribute to the provision of adequate**
23 **electricity to Florida Power and Peninsular Florida at a reasonable cost?**

24 **A. Yes. As discussed above, the Commission has, as a practical matter,**
25 **already addressed this issues in prior proceedings. The Commission's**

1 prior approval of Florida Power's cogeneration contracts and subsequent
2 purchase of the Tiger Bay facility and recovery of fuel costs through the
3 Fuel Clause, necessarily implies that the facility contributes to the
4 provision of electricity at a reasonable cost. See Petition, Exhibits 1, 2
5 and 3.

6
7 The nominal 10 - 12 megawatt increase also will be at no cost to the
8 ratepayer. Florida Power proposes to increase the capacity a nominal 10-
9 12 megawatts simply by changing a computer program to alter the set
10 points on the steam turbine. This will result in capturing steam that is
11 currently being vented and increase steam pressure by 5%, will not
12 involve any material operational changes or equipment expansions to the
13 plant, and will be accomplished at no additional cost to the ratepayer.
14 This enhancement will bring more benefits, in the form of additional,
15 reliable generating capacity, to Florida Power's customers at no additional
16 cost. Additionally, Florida Power will be able to substitute the low cost
17 energy associated with this capacity for the more expensive power
18 generated from its other generation sources, thus passing on these fuel
19 savings to its ratepayers. LGS-1 outlines an analysis of the expected
20 savings over ten years with an additional 10 - 12 megawatts of capacity
21 at the Tiger Bay facility. The savings are based on a blend of 7 months
22 at 10 additional megawatts and 5 months at 6 megawatts. This nominal
23 increase in the megawatts produces approximately \$14,256,000.00 in
24 cumulative savings to ratepayers over ten years.

1 Q. Is the Tiger Bay facility and the additional, nominal 10 - 12 megawatt
2 steam electric capacity increase the most cost-effective alternative
3 available?

4 A. Yes. With respect to the facility as a whole, as discussed above, the
5 Commission in its previous orders has essentially confirmed that the Tiger
6 Bay facility was the most cost-effective alternative. Similarly, the
7 nominal 10-12 megawatt increase represents the most cost-effective
8 alternative to new construction or purchase of power from all feasible and
9 prudent alternatives. As I explained above, the additional capacity
10 increase is essentially free to the ratepayers and will, in fact, reduce their
11 costs. There can be no more cost-effective alternative than the one now
12 proposed by FPC.

13
14 Q. Are there any conservation measures taken by or reasonably available to
15 Florida Power, which might mitigate the need for the Tiger Bay facility
16 and the additional, nominal 10 - 12 megawatts of steam electric
17 capacity?

18 A. No. The PPSA requires consideration of conservation measures available
19 to mitigate the need for a proposed plant. The Tiger Bay facility
20 constitutes a conservation measure by statutory definition. Obtaining
21 capacity from cogeneration facilities is a recognized conservation measure
22 pursuant to §366.82, F.S. Specifically, §366.82(2) provides that goals
23 to be adopted by the Commission include those designed to "[increase]
24 the development of cogeneration" Moreover, §366.82(3) provides
25 that "Utility programs may include variations in rate design, load control,

1 cogeneration, residential energy conservation subsidy, or any other
2 measure within the jurisdiction of the commission which the commission
3 finds likely to be effective" The Tiger Bay facility, by its very nature,
4 satisfies this goal because it is a conservation measure and the added
5 nominal megawatts is an enhancement of that conservation measure.

6
7 Even were the Tiger Bay facility not viewed to be a conservation
8 measure, at the present time, the Tiger Bay facility is the most efficient
9 fossil steam unit on the FPC system and consequently is operated as a
10 base load unit. There are no known or reasonably available conservation
11 measures which could reduce FPC's system load by approximately 220
12 megawatts on a continuous, sustained basis. Furthermore, if such
13 conservation measures existed to reduce FPC's load, the reduction would
14 displace other marginal resources on the FPC system and not the Tiger
15 Bay facility. Similarly, the nominal 10 - 12 megawatt increase in capacity
16 will provide energy savings averaging \$1.4 million per year to customers
17 with no corresponding cost. Because there is no cost associated with the
18 nominal 10 - 12 megawatt capacity increase, there is no need to consider
19 mitigation measures.

20
21 Q. How will the additional, nominal 10 - 12 megawatt steam electric
22 capacity increase affect the stipulation between Florida Power, the Office
23 of Public Counsel, and the Florida Industrial Power User's Group in
24 Docket No. 970096-EQ?

1 A. Generation from the Tiger Bay facility related to the 10 - 12 megawatt
2 capacity increase will have no material effect on the above referenced
3 stipulation. The stipulation provides that, following closing of the
4 transaction, FPC shall continue to recover costs from FPC's ratepayers
5 as if the Tiger Bay purchased power agreements were still in effect. Any
6 incremental increase in generation will be treated in the same manner as
7 all other generation from the Tiger Bay facility.

8

9 Q. Should Florida Power's petition for determination of need for the Tiger
10 Bay facility and the nominal 10 - 12 megawatt steam electric capacity
11 increase be granted?

12 A. Yes.

13

14 Q. Does this conclude your testimony?

15 A. Yes.

16

1 **COMMISSIONER DEASON:** So at this point the
2 record is complete.

3 **MS. PAUGH:** Yes, Commissioner.

4 **COMMISSIONER DEASON:** What does Staff
5 propose that we do at this point, to address the
6 issues? I assume that's the Commission's pleasure to
7 do that at this time or at a subsequent time?

8 **MS. PAUGH:** Yes, and it's possible that the
9 Commissioners could make a bench decision approving
10 the issues and the position stated herein at this
11 time.

12 **COMMISSIONER CLARK:** Mr. Chairman, I assume
13 that basically what we'd do is say, let's see,
14 Position 7 -- I mean Issue 7, we would find that the
15 petition for determination of need meets the statutory
16 requirements, is that -- yeah, I don't know. Do we
17 have to move all the issues, or is that one?

18 **COMMISSIONER DEASON:** Isn't there a rule
19 waiver that's part of this docket?

20 **MS. PAUGH:** That's correct. That is
21 Issue 1.

22 **COMMISSIONER CLARK:** Mr. Chairman, I am
23 satisfied to move the position outlined in the
24 Prehearing Order for all seven issues.

25 **COMMISSIONER DEASON:** There is a motion.

1 **COMMISSIONER GARCIA:** I'll second.

2 **COMMISSIONER DEASON:** A motion and a second.

3 Show that motion adopted unanimously without any
4 objection. And are there any other final matters?

5 **MS. PAUGH:** Yes, we would recommend that
6 this docket be closed and that would require a vote as
7 well.

8 **COMMISSIONER CLARK:** I move the docket be
9 closed.

10 **COMMISSIONER GARCIA:** Second.

11 **COMMISSIONER DEASON:** It's been moved and
12 seconded. Show the docket closed without objection.
13 That concludes today's hearing. Thank you all for
14 being here.

15 (Thereupon, the hearing concluded at
16 9:43 a.m.)

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1 STATE OF FLORIDA)
2 COUNTY OF LEON)

CERTIFICATE OF REPORTER

3 I, ROWENA NASH Official Commission Reporter,

4 DO HEREBY CERTIFY that the Hearing in Docket
5 No. 971059-EI was heard by the Florida Public Service
6 Commission at the time and place herein stated; it is
7 further

8 CERTIFIED that I stenographically reported
9 the said proceedings; that the same has been
10 transcribed under my direct supervision; and that this
11 transcript, consisting of 20 pages, constitutes a true
12 transcription of my notes of said proceedings
13 and the insertion of the prescribed prefiled
14 testimony of the witness.

10

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DATED this 22nd day of October, 1997.

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ROWENA NASH
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