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ORIGINAL

Matthew M Childs P.A.

January 30, 1998

Ms. Blanca S. Bayó, Director
Division of Records and Reporting
Florida Public Service Commission
4075 Esplanade Way, Room 110
Tallahassee, FL 32399

RE: DOCKET NO. 980001-EI

Dear Ms. Bayó:

Enclosed for filing please find an original and ten (10) copies of Florida Power & Light Company's Rebuttal Testimony of K. Adjemian in the above referenced docket.

Very truly yours,



Matthew M. Childs, P.A.

ACK MMC:ml
Enclosures
SFA *Handwritten* All Parties of Record

ALP _____

MAF _____

WTH _____

Behrman

3 + usg

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DOCUMENT FILED DATE
01624 JAN 30 98

**CERTIFICATE OF SERVICE
DOCKET NO. 980001-EI**

I HEREBY CERTIFY that a true and correct copy of Florida Power & Light Company's Rebuttal Testimony of K. Adjemian been furnished by Hand Delivery,** or U.S. Mail this 30th day of January, 1998, to the following:

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Matthew M. Childs, P.A.

ORIGINAL

**BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION**

**DOCKET NO. 980001-EI
FLORIDA POWER & LIGHT COMPANY**

JANUARY 30, 1998

**IN RE: LEVELIZED FUEL COST RECOVERY
AND CAPACITY COST RECOVERY
APRIL 1998 THROUGH DECEMBER 1998**

REBUTTAL TESTIMONY OF:

K. ADJEMIAN

DOCUMENT NUMBER 1177

01624 JAN 30 88

FPSC 1000 S.W. 10TH ST. TALLAHASSEE, FL 32310

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **REBUTTAL TESTIMONY OF K. ADJEMIAN**

4 **DOCKET NO. 980001-EI**

5 **JANUARY 30, 1998**

6

7

8 **Q. Please state your name and business address.**

9 **A. My name is Karabet Adjemian, and my business address is 9250 West Flagler**
10 **Street, Miami, Florida 33174.**

11

BACKGROUND

12 **Q. Please describe your present position and responsibilities.**

13 **A. I am currently the Manager of Resource Planning of the System Planning**
14 **Department at Florida Power & Light Company ("FPL.") I have held this title**
15 **and responsibilities since October 1993. The responsibilities of my present**
16 **position include managing the group that is responsible for the coordination and**
17 **the development of FPL's integrated resource plan which is FPL's primary cross-**
18 **functional program for meeting FPL's customer's needs. My position is also**
19 **responsible for other related activities such as production cost projections.**

1 Q. **What is your educational background?**

2 A. I received a Bachelor of Science degree in Electrical Engineering from the
3 Worcester Polytechnic Institute, Worcester, Massachusetts, in 1975. In 1976,
4 I received a Masters of Science degree in Electrical Engineering from the
5 University of Michigan specializing in Power Systems analysis. In 1983, I
6 received a Masters in Business Administration degree from the Western New
7 England College, Springfield, Massachusetts. I am a registered Professional
8 Engineer in the State of Florida and a member of the Institute of Electrical and
9 Electronic Engineers.

10

11 Q. **Please describe your other electric utility work experience.**

12 A. Upon graduation from the University of Michigan, I held positions in the area of
13 system planning with various electric utilities. In these positions I was
14 responsible for the planning of distribution, transmission and generation systems.
15 In 1984, I was employed by FPL in the System Planning Department. In 1987,
16 I joined the Power Supply Department and was promoted to Coordinator of
17 Power Supply Contracts. In 1988, I rejoined the System Planning Department
18 and in 1989, I was promoted to the position of Manager of Transmission and
19 Substation Planning. In 1993, I was appointed Manager of Resource Planning

1 **PURPOSE OF TESTIMONY**

2 Q. **What is the purpose of your testimony?**

3 A. The purpose of my rebuttal testimony is to address Mr. Ballinger's
4 recommendation that the equivalent availability target filed in the Generation
5 Performance Incentive Factor (GPIF) be consistent with the values assumed in
6 the 1997 FRCC Reliability Assessment study

7
8 Q. **What is the purpose of the GPIF?**

9 A. The purpose of the Generating Performance Incentive Factor (GPIF) is to
10 provide a monetary incentive for the efficient operation of base load generating
11 units.

12
13 Q. **How are the targets for GPIF currently set?**

14 A. GPIF targets are set using the most recent twelve month ending average forced
15 outage factor (FOF) and maintenance outage factor (MOF) as the starting value
16 for the determination of the target unplanned outage factor (UOF). The UOF is
17 then adjusted to reflect recent monthly performance and known modifications or
18 changes in equipment. Historical UOF is then adjusted to account for planned
19 outages which may have occurred. Finally, the target UOF is adjusted to account
20 for planned outages expected to occur during the GPIF period

1 Q. How is Mr. Ballinger's proposal different from the current approach?

2 A. Mr. Ballinger proposes using long term forecasted values taken from the 1997
3 FRCC Assessment study instead of historical values to set the GPIF targets.

4

5 Q. Is Mr. Ballinger's approach in conflict with the purpose of the GPIF?

6 A. Yes. The values used in the Assessment study represent long-term expectations.
7 These values are relatively constant because it is not feasible to forecast planned
8 outages for the long term with the same degree of accuracy as employed in the
9 GPIF. Also, since the purpose of the Assessment study was to identify capacity
10 needs on a statewide basis, precision in individual plant performance is not
11 critical. This approach would be inappropriate for the GPIF which seeks to
12 monetarily reward or penalize unit performance. GPIF studies identify fuel
13 impacts at individual plants in the near term and represent the most current and
14 accurate expected performance of system conditions over the next year. The
15 proposed approach may lead to gross differences and inconsistent rewards and
16 penalties.

17

18 Q. Can you be more specific?

19 A. Yes. For example, in the Assessment study FPL's St. Lucie Unit 1 is assumed
20 to have an equivalent annual availability of 85.1% due to a forced outage rate of
21 7.1% and 4.4 weeks of maintenance outage. The study assumed that this level
22 of maintenance would be required, on the average over a long term, each year

1 In fact, St. Lucie Unit 1, just like any other nuclear unit, has a scheduled
2 maintenance outage cycle that is coincident with the unit's refueling schedule.
3 As such there are several years that St. Lucie Unit 1 will not be taken down for
4 maintenance. In GPIF, St. Lucie Unit 1 has an Equivalent Availability Factor
5 (EAF) target of 72.7% due to a scheduled outage within the next period, October
6 1997 - September 1998. Therefore, it would be inappropriate to base the GPIF
7 targets for St. Lucie Unit 1 to the availability assumptions of a long range
8 planning study such as the Assessment study.

9
10 Table 1 presents a comparison of the unit availabilities between the FRCC study
11 and the GPIF targets for the period of October 1997 - September 1998. As
12 shown in column (E), the differences are relatively small with a few exceptions
13 where the specific unit is scheduled for a planned outage during the GPIF period.
14 Generally, planned outages are moved depending on near term system conditions
15 (e.g., other unit availabilities, load, etc.) which cannot be reflected on a long
16 range study such as the Assessment study. Obviously it would be inappropriate
17 to set GPIF targets for those units based on the numbers used in the Assessment
18 study.

19
20 **Q. Would fossil units exhibit the same problem?**

21 **A.** Yes. Similar to nuclear units, fossil units have maintenance schedules which
22 follow a regular cycle over several years with varying annual outage schedules.

1 The planned outage time would be expected to be greater than the long term
2 average in some years and lower in other years.

3

4 **Q. What is your recommendation?**

5 **A. I recommend that we continue to use the current methodologies. Each is**
6 **appropriate when used in the manner intended**

7

8 **Q. Does this conclude your testimony?**

9 **A. Yes.**

APPENDICES

Table 1 - Comparison of Equivalent Availability Between FRCC Study and GPIF Targets

Unit	(A)* FRCC FOR	(B)** FRCC MOW	(C) FRCC EAF	(D)*** GPIF Target	(E) GPIF POH	(F) Delta EAF
PCC1	4.5	1.1	93.5%	93.6%	192	-0.1%
PCC2	4.3	1.1	93.7%	89.3%	552	4.4%
PFL4	2.8	2.2	93.1%	88.7%	744	4.4%
PFL5	2.9	2.2	93.0%	93.5%	264	-0.5%
PFM2	4.0	1.1	94.0%	93.7%	89	0.3%
PMG3	2.1	2.2	93.8%	95.2%	126	-1.4%
PMG4	2.1	2.2	93.8%	93.0%	93	0.8%
PPE3	3.8	1.1	94.2%	80.8%	1416	13.4%
PRV3	7.5	0.9	90.9%	76.5%	1512	14.4%
PRV4	8.0	0.9	90.4%	92.5%	384	-2.1%
PSN5	2.8	1.1	95.1%	94.3%	0	0.8%
PTN3	5.6	4.4	86.4%	92.8%	72	-6.4%
PTN4	5.6	4.4	86.4%	89.1%	0	-2.7%
PSL1	7.1	4.4	85.1%	72.7%	1800	12.4%
PSL2	5.6	4.4	86.4%	93.6%	0	-7.2%

*1998 values input to FRCC study

**Values shown are Scheduled Maintenance Weeks as input to FRCC study
These values are based on a 5-year projected average

***From October 1997 to September 1998 GPIF projections

$$(C) = 1 - (1 - B \cdot 168/8760) \cdot A/100 - B \cdot 168/8760$$