

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In Re: Fuel and purchased power : DOCKET NO. 990001-EI
cost recovery clause and generating :
performance incentive factor :
_____ :

VOLUME 1
PAGES 1 through 165

BEFORE: CHAIRMAN DEASON
COMMISSIONER CLARK
COMMISSIONER JACOBS

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P R O C E E D I N G S

(Hearing convened at 9:35 a.m.)

COMMISSIONER DEASON: Call the hearing to order. Can I have the Notice read, please.

MR. KEATING: Pursuant to Notice issued September 22, 1999 this time and place have been set for a hearing in Docket No. 990001-EI, Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor; Docket No. 990002-EG, Energy Conversation Cost Recovery Clause; Docket No. 990003-GU, Purchased Gas Adjustment True-up; and Docket No. 990007-EI, Environmental Cost Recovery Clause.

COMMISSIONER DEASON: Thank you. We are going to take appearances in just a moment. Let me ask Staff, are we going to take appearances for all the dockets at this time?

MR. KEATING: I think that's how we've done it.

COMMISSIONER DEASON: And then parties will indicate on which dockets they are appearing?

MR. KEATING: Yes.

COMMISSIONER DEASON: Very well. We'll take appearances.

MR. BURGESS: I'm Steve Burgess here on

1 behalf of the Public Counsel's Office representing the
2 Citizens of the State of Florida in all of dockets
3 before the Commission.

4 **MR. PALECKI:** Michael Palecki on behalf of
5 City Gas Company of Florida, 3111 Mahan Drive,
6 Tallahassee, Florida in the 002 and 003 dockets.

7 **MR. MCGEE:** James McGee on behalf of Florida
8 Power Corporation in the 01 and 02 dockets.

9 **MS. KAUFMAN:** John McWhirter and Vicki
10 Gordon Kaufman of the McWhirter Reeves law firm on
11 behalf of the Florida Industrial Power Users Group in
12 the 01, 02 and 07 dockets.

13 **MR. CHILDS:** Matthew M. Childs with the firm
14 of Steel, Hector and Davis appearing on behalf of
15 Florida Power & Light Company in the 01 and 07
16 dockets.

17 **MR. STONE:** Jeffrey A. Stone and together
18 with me is Russell A. Badders of the law firm of Beggs
19 and Lane, Pensacola, and we're appearing in the 01, 02
20 and 07 dockets.

21 **MR. WILLIS:** Lee L. Willis together with
22 James D. Beasley and Kenneth R. Hart of Ausley &
23 McMullen, P.O. Box 391, Tallahassee, Florida 32302
24 appearing on behalf of Tampa Electric Company in the
25 01, 02 and 07 dockets.

1 **MR. KEATING:** Cochran Keating appearing on
2 behalf of the Commissione Staff in the 01 and 03
3 dockets.

4 **MS. JAYE:** Grace Jaye appearing on behalf of
5 Commission Staff in the 02 and 07 dockets.

6 **COMMISSIONER DEASON:** And there are a number
7 of other parties who have been excused from this
8 proceeding because all issues have been stipulated; is
9 that correct?

10 **MR. KEATING:** I believe so.

11 **COMMISSIONER DEASON:** Very well.

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P R O C E E D I N G S

CHAIRMAN DEASON: Staff, are there preliminary matters in the 01 docket?

MR. KEATING: Yes, there are, Commissioner. There are a few from --

CHAIRMAN DEASON: If staff needs just a moment or two to get organized, I'll certainly give you that opportunity.

MR. KEATING: That would probably help. Thanks.

(BRIEF PAUSE)

MR. KEATING: I believe we are done shuffling and changing hats to the 01 docket and ready to go.

CHAIRMAN DEASON: Okay. Let's proceed then with any preliminary matters that staff may have.

MR. KEATING: Okay. First, staff has an outstanding motion for in camera inspection of certain documents that we requested from TECO. We had intended to withdraw that motion sometime ago and realized after the prehearing and after the prehearing order was issued that that motion was still outstanding. We'd like to formally withdraw it here as a preliminary matter.

CHAIRMAN DEASON: Very well. Show then that that motion is withdrawn.

1 MR. KEATING: Second, there are two Florida
2 Power & Light specific issues, 16C and 30. These
3 issues concern recovery of payments from Florida
4 Power & Light to the Cedar Bay co-gen facility based
5 on the court's interpretation of the pricing
6 provisions of that contract. It was staff's
7 position that these issues should be addressed by
8 the full Commission in a subsequent proceeding
9 because the full Commission has considered the
10 policy implications of a similar dispute between
11 Florida Power and Lake Co-Gen. We had agreed prior
12 to the hearing with Florida Power & Light that that
13 could be heard by the full Commission subsequent to
14 this hearing. The terms of that agreement are that
15 we would -- is that we would recommend allowing
16 Florida Power & Light to include those costs and
17 their factors pending the subsequent proceeding; but
18 from what I've heard in previous dockets today, I'm
19 not sure that's something that the Commission is
20 willing to do.

21 CHAIRMAN DEASON: Well, it seems to me that --
22 and correct me if I'm wrong -- that in the CR3 case
23 the Commission reconsidered its position on allowing
24 cost recovery before costs are specifically
25 approved, and that may need to be decided by the

1 full Commission also, but I'll certainly -- if my
2 fellow commissioners have any thoughts on that. And
3 I guess we can open up this issue for comment from
4 parties as well, and when the time is right, before
5 the Commission decides whether to take up these
6 issues at this time or refer them to the full
7 Commission, if parties wish to comment, I'll allow
8 them the opportunity as well. Is now the correct
9 time to address that? Do you think so? Mr. Childs,
10 do you have any thoughts on the staff's suggestion
11 that these issues be referred to the full
12 Commission?

13 MR. CHILDS: Where our position was is that --
14 initially, was that it was appropriate, timely for
15 this field panel to hear them. Staff had indicated
16 some concern about bringing them up, as counsel has
17 now indicated, and we had -- with it being
18 understood that since this is the forecast period,
19 that we would not take those costs out but would
20 treat them as time matters relating to issues that
21 are spun out in the fuel adjustment; that when
22 they're spun off, that you go forward recognizing
23 it's a forecast and not try to redo the forecast for
24 that amount.

25 In addition, we had discussed that the

1 Commission would -- or that the staff would propose
2 to address it expeditiously on a proposed agency
3 action basis, and I would hope that that would be
4 the way we'd do it.

5 CHAIRMAN DEASON: So you're in agreement as
6 long as the costs were recovered beginning with this
7 recovery period?

8 MR. CHILDS: I think so, yes. You know, it
9 seemed to us that this was a matter that was
10 appropriate, and it was timely. We were, we were --
11 It's not that staff is tardy, but it's late in the
12 year to try to come up with a different way of
13 addressing, and our preference would be to go
14 forward and address it. We were willing as staff
15 raising -- As staff is raising the point about
16 policy, we are willing to do that but would ask that
17 you not interfere with the implementation of it any
18 more than absolutely necessary.

19 CHAIRMAN DEASON: Okay. Does Power Corp have a
20 similar issue?

21 MR. McGEE: Yes, Commissioner. I think that
22 would be 17E.

23 CHAIRMAN DEASON: 17E?

24 MR. McGEE: That's correct. It's on Page 26.

25 CHAIRMAN DEASON: Okay. And what is your

1 position, Mr. McGee?

2 MR. McGEE: We have agreed with the staff's
3 suggestion that, given the history of this dispute
4 before the Commission and before the full
5 Commission, that if it was desirable that this
6 follow-up issue also be heard by them, that we have
7 no objection to that.

8 CHAIRMAN DEASON: Okay. And with the
9 understanding that these costs would be recovered in
10 the interim period?

11 MR. McGEE: That's correct.

12 CHAIRMAN DEASON: Now let me ask you this
13 question: If these costs are not included and it's
14 ultimately determined that they should be included,
15 would there be, basically, interest calculated on
16 the under recovery so you would be made whole?

17 MR. McGEE: Yes.

18 CHAIRMAN DEASON: Okay. But you still -- you'd
19 like it to be included now even though you would be
20 made whole in the event that you prevail on the
21 issue?

22 MR. McGEE: Yes, that's correct. And from --
23 just from the timing standpoint, to be pulling
24 numbers out, which in the scope of things are not
25 large and would not amount to a significant change,

1 but to have to go through the recalculation would be
2 an exercise that I don't think would really provide
3 any great benefit. And as you say, with the true-up
4 feature and the interest that's applied to it that's
5 an attempt to make all of this transparent to the
6 customers, I don't see what the real benefit would
7 be.

8 CHAIRMAN DEASON: What is the dollar amount
9 associated with your issue, Mr. McGee?

10 MR. MCGEE: We have -- There are two
11 components to it. There is -- The court's award
12 included an amount that was retrospective and that
13 is about \$4,500,000. That includes a credit of
14 about a million and a half for -- well, without
15 getting into too many details, when several pieces
16 of the retroactive component are put together, the
17 amount is four and a half million dollars. We have
18 also included the costs that result from the court's
19 ruling on the energy pricing in a prospective
20 manner, and that's in a month-by-month amount. And
21 I don't know what the precise amount is for calendar
22 year 2000. It has never been quantified in the
23 specific way that the retrospective amount was.

24 CHAIRMAN DEASON: Mr. Childs, what is the
25 amount in question for Florida Power & Light?

1 MR. CHILDS: The amount is approximately
2 18,480,000 or 490. That's eight tenths of a percent
3 of the total.

4 CHAIRMAN DEASON: Eight tenths of one percent?

5 MR. CHILDS: Yeah, the total is something
6 like -- the total capacity and fuel is -- of that
7 figure, I think is 2.150 billion. So the total is,
8 for fuel is 5,065,000. Capacity is 13,000,427.

9 CHAIRMAN DEASON: And that constitutes about
10 point eight percent of the total amount of fuel
11 recovered?

12 MR. CHILDS: Point eight five, point eight six.

13 CHAIRMAN DEASON: Point eight five and point
14 eight six.

15 Mr. McGee, do you have a rough number as to
16 what this -- the prospective recovery amount is in
17 relation to the 4.5 million you've already
18 identified?

19 MR. MCGEE: If you could give me just one
20 moment, I think we can do that.

21 CHAIRMAN DEASON: Surely. And while he is
22 getting that number, Mr. Burgess and Ms. Kaufman,
23 I'd be interested to know if you all have positions
24 on whether it should be referred to the full
25 Commission, and if it is referred to the full

1 Commission, how these amounts in question should be
2 accounted for in the interim.

3 MR. BURGESS: Commissioner, if I might address
4 that. Our position was colored somewhat by my
5 understanding that this proceeding is currently
6 under appeal and that it's not ripe for a Commission
7 determination at this point, and so that, therein,
8 was a good bit of our concern. And I have not been
9 given any information that would make me think
10 otherwise as far as the status of the case. So I
11 think it's not timely, and I don't think it's proper
12 for the Commission to determine it in this forum or
13 at this point. And further, that if the Commission
14 does not decide affirmatively that it's a legitimate
15 expense to be allowed, that the Commission should
16 not incorporate it, even though it is projected. I
17 recognize it is projected; but, nevertheless, the
18 Commission, even on projected expenses, does not
19 allow something that conceptually it does not
20 approve of. So I would recommend that
21 determination, or the policy that came forward from
22 the CR3 issue be retained by the Commission and that
23 it not be incorporated unless the Commission does
24 reach a determination that's appropriate.

25 CHAIRMAN DEASON: Do you agree that if these

1 amounts are determined by the Commission, by the
2 full Commission that they should be recovered, that
3 there would be interest associated with the delay in
4 recovery?

5 MR. BURGESS: Yeah, my understanding was that's
6 automatic, and it's not something that, at least at
7 this point, I can find any objection with at all.

8 CHAIRMAN DEASON: Okay. Ms. Kaufman.

9 MS. GORDON KAUFMAN: Commissioner Deason, we
10 have no position on these issues.

11 CHAIRMAN DEASON: Okay. Mr. McGee.

12 MR. MCGEE: The quantification of that 4.5
13 million dollars as a percentage of total costs of
14 fuel and CCR is approximately one half of one
15 percent.

16 CHAIRMAN DEASON: One half of one percent?

17 MR. MCGEE: Right. It's about five million out
18 of one billion dollars.

19 CHAIRMAN DEASON: Okay. Staff, you're looking
20 for a decision at this point as to whether we refer
21 to this to the full Commission; that's your desire?

22 MR. KEATING: That's correct.

23 CHAIRMAN DEASON: Okay. Commissioners, do you
24 have questions?

25 COMMISSIONER CLARK: No, I think the

1 recommendation is correct, that it should be the
2 full Commission. I think it's appropriate to refer
3 to the full Commission.

4 CHAIRMAN DEASON: Okay. And then the
5 question -- I'm sorry, Leon, do you have a position
6 on that?

7 COMMISSIONER JACOBS: Is there -- I think it's
8 probably -- My concern was are we adding anything
9 by -- Is there something unique here that we're
10 deciding? But I think that the issue in and of
11 itself probably should be --

12 COMMISSIONER CLARK: Well, this has been an
13 area that's given us some cause for differing views
14 on it. Let me ask another question.

15 Mr. Childs, would you respond to what
16 Mr. Burgess said with respect to the -- I take it
17 it's the Cedar Bay. Is that on appeal now?

18 MR. CHILDS: No.

19 COMMISSIONER CLARK: Mr. Burgess, what case was
20 on appeal that you were --

21 MR. BURGESS: That was the case that was my
22 understanding.

23 COMMISSIONER CLARK: Mr. Childs says that Cedar
24 Bay is not on appeal.

25 MR. BURGESS: Okay. I had asked that question

1 at prehearing and, as I recall, received an answer
2 that indicated that it was.

3 MR. CHILDS: I don't think so, but -- I don't
4 think it is, and my information is I have no
5 information that it will be.

6 CHAIRMAN DEASON: Would that change your
7 position, Mr. Burgess?

8 MR. BURGESS: It would.

9 CHAIRMAN DEASON: So you're saying then that if
10 the amounts are not under appeal that you would not
11 object to the Commission allowing recovery during
12 the interim period until it's finally resolved by
13 the full Commission?

14 MR. BURGESS: No, it would change my -- the
15 basis of our position that it's untimely, it would
16 change that. And what I would say at that point is
17 that if the Commission, upon hearing the evidence on
18 it in this docket, whether before the fuel
19 adjustment panel or before the entire Commission
20 reaches an affirmative decision, then it should be
21 passed on; but I would say not until then.

22 CHAIRMAN DEASON: But not until then?

23 MR. BURGESS: Correct.

24 CHAIRMAN DEASON: Okay. Further questions or a
25 motion?

1 COMMISSIONER JACOBS: I move that we adopt --
2 accept staff's recommendation for the full
3 Commission to decide it.

4 CHAIRMAN DEASON: Okay.

5 COMMISSIONER CLARK: Second.

6 CHAIRMAN DEASON: It's moved and seconded that
7 the full Commission will decide these two issues.
8 Show that decision unanimous. Then we must decide
9 how we're going to treat these amounts for this
10 recovery period.

11 COMMISSIONER CLARK: Mr. Chairman, I think you
12 are correct, that we previously had a decision where
13 it was made that they would not be recovered until
14 they are approved. That may be a policy we want to
15 change, but I think it should -- given that that was
16 made by the full Commission, I think it should
17 likewise be made by the full --

18 CHAIRMAN DEASON: Well, it was a very
19 controversial issue, I know that. I don't know if
20 the Commission actually -- Maybe Mr. Elias can
21 inform us as to whether there was actually a policy
22 determination by the Commission.

23 MR. ELIAS: There was no policy determination
24 that I'm aware of that talked in terms of the timing
25 of the recovery, whether -- What there was, what

1 came out of all that was a requirement that those
2 costs where they include -- or exceeded 5% of the
3 factor, as I recall, or 5% of the change -- I'm not
4 sure which one it was -- needed to be justified in
5 testimony prior to being included in the factors.
6 So that if there was a change -- if there was a
7 significant change to the factor, the import of the
8 Commission's policy decision two years ago was that
9 those changes would have to be reflected in
10 testimony before they could be approved.

11 CHAIRMAN DEASON: And if they exceeded 5% of
12 the recovery factor?

13 MR. ELIAS: Yes.

14 CHAIRMAN DEASON: And it would need to be --
15 there would need to be testimony in the record
16 before there could be some type of interim recovery?

17 MR. ELIAS: That's correct.

18 CHAIRMAN DEASON: Okay. And so these amounts
19 do not rise to that level?

20 MR. ELIAS: To the best of my knowledge and
21 information and belief, they do not.

22 CHAIRMAN DEASON: But it still would be within
23 the Commission's discretion to treat it otherwise?

24 MR. ELIAS: This is a matter of Commission
25 discretion as to allow recovery subject to refund

1 in the event that the costs are disallowed or to
2 allow -- or to exclude those costs from the factors
3 subject to true-up with interest in the event that
4 those costs are ultimately determined to be
5 appropriate.

6 CHAIRMAN DEASON: Okay.

7 COMMISSIONER CLARK: Let me ask a question. Do
8 you know how much this would change the rate
9 themselves? I mean what would it mean in terms of a
10 residential bill?

11 MR. CHILDS: I have that the fuel factor would
12 go from 1.894 cents to 1.888 cents. Capacity would
13 go from .00477 to .00460.

14 COMMISSIONER CLARK: And Mr. Elias, you're
15 saying that decision said where it was over 5% --

16 MR. ELIAS: Yes.

17 COMMISSIONER CLARK: -- you would not allow it?
18 You absolutely would not allow it on a prospective
19 basis?

20 MR. ELIAS: No, no, no. The requirement was
21 for --

22 COMMISSIONER CLARK: Testimony in the record?

23 MR. ELIAS: -- justification prior to a cost
24 recovery, and that was an interim.

25 COMMISSIONER CLARK: And in this case, there is

1 testimony on it; would that be correct, on these
2 issues? Even though we've asked for them to defer,
3 they have prefiled testimony?

4 MR. CHILDS: We have for Florida Power & Light.

5 MR. McGEE: And we also have prefiled testimony
6 for Florida Power Corporation.

7 MR. ELIAS: And, again, I'm not sure that
8 given the magnitude of the dollar amount at issue
9 here that it falls within the ambit of that
10 decision. In other words, I think it's below the 5%
11 threshold in either case.

12 MR. WHEELER: I believe that the factors that
13 Mr. Childs provided would boil down to 23 cents on
14 an average one thousand kilowatt hour residential
15 bill monthly, subject to check.

16 MR. CHILDS: You're way ahead of me, I think,
17 so --

18 COMMISSIONER CLARK: Mr. Chairman, I will do
19 what the majority is inclined to do, but given the
20 analysis of that previous case and the impact of
21 this, I would be comfortable with going forward with
22 them because I think they are the type of expenses
23 that would be allowed. It's whether or not the
24 amount -- Would that be a fair statement of these
25 expenses?

1 MR. KEATING: I think so. For the majority of
2 the expenses, I believe so.

3 COMMISSIONER CLARK: Okay.

4 CHAIRMAN DEASON: Well, I -- you know, I did
5 not want -- I raised the CR3 decision because I did
6 not want to run afoul of that, and I appreciate
7 Mr. Elias educating us on the parameters of that
8 decision. It would appear like if we were to allow
9 these amounts we would not be running afoul of that
10 determination. So I would be comfortable in
11 allowing these amounts to be recovered for purposes
12 of this recovery period, understanding that there
13 would not be a final decision until the full
14 Commission acted; and then that, based upon that
15 decision, there may be some refunds with interest on
16 over recovery. That possibility exists. I think
17 all the parties acknowledge that.

18 COMMISSIONER CLARK: That would be my motion.

19 CHAIRMAN DEASON: Okay. It's been moved. Do
20 we have a second?

21 COMMISSIONER JACOBS: Second.

22 CHAIRMAN DEASON: It's been moved and seconded.
23 Show then that the Commission approves that
24 unanimously. It will be referred to the full
25 Commission, and in the meantime, these amounts in

1 question will be recovered with the possibility
2 there could be refunds with interest.

3 MR. KEATING: Okay. And I believe that takes
4 care of Issues 16C, 17E, and 30.

5 CHAIRMAN DEASON: And Issue 30 as well?

6 MR. KEATING: Yes.

7 CHAIRMAN DEASON: Okay. Other preliminary
8 matters?

9 MR. KEATING: Staff would like to point out on
10 Issues 2 and 3 in the prehearing order, this is just
11 an error. Staff's position should have been no
12 position at this time. The amounts ultimately
13 determined in Issues 2 and 3 are fallout of Issue
14 19E, which involves the replacement fuel costs
15 associated with the explosion at the Gannon Unit 6;
16 and staff --

17 CHAIRMAN DEASON: So these were fallout
18 amounts, and your position will be dependent upon
19 other issues?

20 MR. KEATING: Correct, it will -- Yes.

21 CHAIRMAN DEASON: Okay.

22 MR. KEATING: Finally, I believe, unless
23 parties have any other preliminary matters, at this
24 point we could move in the testimony of witnesses
25 who have been excused.

1 CHAIRMAN DEASON: Okay. Before we go there,
2 let me see if there are any other preliminary
3 matters by any of the parties.

4 (NO RESPONSE)

5 CHAIRMAN DEASON: Apparently not. Okay. Then
6 we can proceed then to testimony of those witnesses
7 who we intend to have testimony inserted.

8 MR. KEATING: Okay. Those witnesses are listed
9 on Pages 5 through 7 of the prehearing order, those
10 witnesses with an asterisk next to their name.

11 CHAIRMAN DEASON: Could you go through that for
12 clarification, please?

13 MR. KEATING: Yes. That would be Witnesses
14 Silva, Scardino, McClintock, Bachman, Oaks,
15 Douglass, Vick --

16 CHAIRMAN DEASON: Now Davis is not one of
17 those?

18 MR. KEATING: No.

19 CHAIRMAN DEASON: Okay.

20 MR. KEATING: Keselowsky and Hornick.

21 CHAIRMAN DEASON: And Ward is not to be
22 stipulated?

23 MR. KEATING: I don't believe he can be
24 stipulated.

25 CHAIRMAN DEASON: Okay. Mr. Ward, is not -- Is

1 that a mister? Yeah, Mark Ward. That's not to be
2 stipulated; is that correct?

3 MR. McWHIRTER: That's correct.

4 CHAIRMAN DEASON: Okay. Then for those
5 witnesses that you've just indicated, you're moving
6 that that testimony be inserted into the record?

7 MR. KEATING: That's correct.

8 CHAIRMAN DEASON: Any objection?

9 (NO RESPONSE)

10 CHAIRMAN DEASON: Hearing no objection, show
11 then that that testimony will be inserted into the
12 record.

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1 **BEFORE THE PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **TESTIMONY OF R. SILVA**

4 **DOCKET NO. 990001-EI**

5 **APRIL 1, 1999**

6
7 **Q. Please state your name and business address.**

8 **A. My name is Rene Silva and my business address is 700 Universe Boulevard,**
9 **Juno Beach, Florida 33408.**

10
11 **Q. Mr. Silva, would you please state your present position with Florida**
12 **Power and Light Company (FPL).**

13 **A. I am Manager of Forecasting and Regulatory Response, in the Power**
14 **Generation Business Unit of FPL.**

15
16 **Q. Mr. Silva, have you previously presented testimony in this docket?**

17 **A. Yes, I have.**

18
19 **Q. Mr. Silva, what is the purpose of your testimony?**

20 **A. The purpose of my testimony is to report the actual performance for the**
21 **Equivalent Availability Factor (EAF) and Average Net Operating Heat Rate**
22 **(ANOHR) for the sixteen (16) generating units used to determine the**
23 **Generating Performance Incentive Factor (GPIF). I have compared the**
24 **actual performance of each unit to the targets that were approved in**
25 **Commission Order No. PSC-98-1715-FOF-EI issued December 18, 1998,**

1 for the period October, 1998, through December, 1998, and have performed
2 the calculations prescribed by the GPIF Rule based on this comparison. My
3 testimony presents the result of my calculations, which is an incentive reward
4 for the period.

5
6 **Q. Have you prepared, or caused to have prepared under your direction,**
7 **supervision or control, an exhibit in this proceeding?**

8 **A.** Yes, I have. It consists of one document. Page 1 of that document is an index
9 to the contents of the document.

10
11 **Q. What is the incentive amount you have calculated for the period**
12 **OCTOBER, 1998 THROUGH DECEMBER, 1998?**

13 **A.** I have calculated a GPIF incentive reward of \$ 1,697,372.

14
15 **Q. Please explain how the reward amount is calculated?**

16 **A.** The steps involved in making this calculation are provided in Document No.
17 1. Page 2 of Document No. 1 provides the GPIF Reward/Penalty Table
18 (Actual) which shows an overall GPIF performance point value of +3.45
19 corresponding to a GPIF reward of \$1,697,372. Page 3 provides the
20 calculation of the maximum allowed incentive dollars. The calculation of the
21 system actual GPIF performance points is shown on page 4. This page lists
22 each unit, the unit's performance indicators (ANOHR and EAF), the
23 weighting factors and the associated GPIF points.

1 Page 5 is the actual EAF and adjustments summary. This page lists each of
2 the sixteen (16) units, the actual outage factors and the actual EAF, in
3 columns 1 through 5. Column 6 is the adjustment for planned outage
4 variation. Column 7 is the adjusted actual EAF, which is calculated on page
5 6, and Column 8 is the target EAF. Column 9 contains the Generating
6 Performance Incentive Points for availability as determined from the tables
7 submitted to, and approved by, the Commission prior to the start of the
8 period. These tables are shown on pages 8 through 23.

9
10 Page 7 shows the adjustments to ANOHR. For each of the sixteen (16) units,
11 it shows the target heat rate formula, the actual Net Output Factor (NOF)
12 and the actual ANOHR in columns 1 through 4. Since heat rate varies with
13 NOF, it is necessary to determine both the target and actual heat rates at the
14 same NOF. This adjustment is to provide a common basis for comparison
15 purposes and is shown numerically for each GPIF unit in columns 5 through
16 8. Column 9 contains the Generating Performance Incentive Points that have
17 been determined from the table submitted for each unit and approved by the
18 Commission prior to the beginning of the period. These tables are also shown
19 on pages 8 through 23.

20
21 **Q. Are there any changes to the targets approved through Commission**
22 **Order No. PSC-98-1715-FOF-EI ?**

23 **A. No, the approved targets have not changed.**
24

1 **Q.** Please explain the primary reason or reasons why FPL will be rewarded
2 under the GPIF for the October, 1998 through December, 1998 period?

3 **A.** The primary reason that FPL will receive a reward for the period was that
4 Turkey Point Nuclear Units 3 and 4 and St. Lucie Nuclear Units 1 and 2
5 achieved better availability than was targeted.

6
7 **Q.** Please summarize the effect of FPL's nuclear unit availability on the
8 GPIF reward?

9 **A.** Turkey Point Unit 3 operated at an adjusted actual EAF of 68.5%, compared
10 to its target of 67.1%. This results in a +4.65 point reward, which
11 corresponds to a GPIF reward of \$169,199.

12
13 Turkey Point Unit 4 operated at an adjusted actual EAF of 100.0%,
14 compared to its target of 93.6%. This results in a +10.00 point reward,
15 which corresponds to a GPIF reward of \$534,301.

16
17 St. Lucie Unit 1 operated at an adjusted actual EAF of 99.6%, compared to
18 its target of 92.8%. This results in a +10.00 point reward, which
19 corresponds to a GPIF reward of \$621,522.

20
21 St. Lucie Unit 2 operated at an adjusted actual EAF of 60.6%, compared to
22 its target of 57.1%. This results in a +10.00 point reward, which
23 corresponds to a GPIF reward of \$326,766.

24

1 The total GPIF reward due to the nuclear units' actual availability
2 performance is \$1,651,788.

3
4 **Q. Please summarize each nuclear unit's performance as it relates to the**
5 **ANOHR of the units.**

6 **A. Turkey Point Unit 3 operated with an adjusted actual ANOHR of 10,890**
7 **BTU/KWH, which was better than projected by 140 BTU/KWH. This will**
8 **result in a +3.41 point reward, which corresponds to a GPIF reward of**
9 **\$79,177.**

10
11 Turkey Point Unit 4 operated with an adjusted actual ANOHR of 11,023
12 BTU/KWH, which was better than projected by 114 BTU/KWH. This will
13 result in a +2.14 point reward, which corresponds to a GPIF reward of
14 \$68,306.

15
16 St. Lucie Unit 1 operated with an adjusted actual ANOHR of 10,790
17 BTU/KWH, which was better than projected by 81 BTU/KWH. This will
18 result in a +0.60 point reward, which corresponds to a GPIF reward of
19 \$9,264.

20
21 St. Lucie Unit 2 operated with an adjusted actual ANOHR of 10,804
22 BTU/KWH. This ANOHR is within the ± 75 BTU/KWH deadband around
23 the projected target, therefore there is no GPIF reward or penalty.
24

1 In total, the nuclear units' heat rate performance results in a GPIF reward of
2 \$156,747.

3
4 **Q. What is the total GPIF incentive reward for FPL's nuclear units?**

5 **A. \$1,808,535.**

6
7 **Q. Mr. Silva, would you summarize the performance of FPL's fossil**
8 **units?**

9 **A. Yes, five (5) of the twelve (12) generating units performed better than their**
10 **availability targets, while the remaining units performed worse than its target.**
11 **The combined fossil unit availability performance results in a GPIF reward of**
12 **\$15,415.**

13
14 **Two (2) of the units operated with ANOHR's that were better than their**
15 **projected targets and five (5) units operated with ANOHR's that were worse**
16 **than their projected targets. The remaining five (5) units operated with**
17 **ANOHR's that were within the +/- 75 BTU/KWH deadband around the**
18 **projected targets and they will receive no incentive reward or penalty. In**
19 **total, the combined fossil unit heat rate performance results in a GPIF penalty**
20 **of \$126,577.**

21
22 **In total, the GPIF penalty for FPL's fossil units for the period of October,**
23 **1998 through December, 1998 is \$111,162.**

24
25 **Q. Does this conclude your testimony?**

1 A. Yes, it does.
2

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **TESTIMONY OF RENE SILVA**

4 **DOCKET NO. 990001-EI**

5 **OCTOBER 1, 1999**

6 **Q. Please state your name address.**

7 A. My name is Rene Silva. My address is 700 Universe Boulevard, Juno
8 Beach, Florida, 33408.

9

10 **Q. By whom are you employed and what is your position?**

11 A. I am employed by Florida Power & Light Company (FPL) as Manager
12 of Planning, Economic Analysis and Regulatory Response in the Power
13 Generation Division.

14

15 **Q. Have you previously testified in this docket?**

16 A. Yes.

17

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

19 A. The purpose of my testimony is to present and explain FPL's projections
20 for (1) dispatch costs of heavy fuel oil, light fuel oil, coal and petroleum
21 coke, and natural gas, (2) availability of natural gas to FPL, (3)

1 generating unit heat rates and availabilities, and (4) quantities and costs
2 of interchange and other power transactions. These projected values
3 were used as input values to the POWRSYM model in the calculation of
4 the proposed fuel cost recovery factor for the period January through
5 December, 2000.

6
7 **Q. Have you prepared or caused to be prepared under your**
8 **supervision, direction and control an Exhibit in this proceeding?**

9 A. Yes, I have. It consists of pages 1 through 13 of Appendix I of this
10 filing.

11
12 **Q. In addition to the "Base Case" fuel price forecast, have you**
13 **prepared alternative fuel price forecasts?**

14 A. Yes. In addition to the "Base Case" fuel price forecast, we have
15 prepared - for fuel oil and natural gas supply - two alternate forecasts, a
16 "Low" and a "High" price forecast.

17
18 **Q. Why did you prepare these "Low" and "High" forecasts for fuel oil**
19 **and gas supply?**

20 A. The conditions that affect the prices of fuel oil and natural gas can
21 change significantly between the time the forecast is developed and the
22 date of the filing in October. While we do revise our short-term fuel

1 price forecast each month - and more often if needed - in order to
2 support fuel purchase decisions, it is not possible to wait until we have
3 our early October fuel price forecast update to rerun our POWRSYM
4 system simulation, in order to reflect the latest changes in fuel market
5 conditions, and still meet our October 1 filing date. Furthermore, while
6 FPL has, in the past, rerun its projections and re-filed its fuel cost
7 recovery factor after its initial filing to reflect late changes in fuel
8 market conditions, this approach does not provide the same flexibility to
9 react to those changes that use of a banded forecast provides. Trying to
10 incorporate such "last minute" changes puts us at risk of not having
11 adequate time to produce new computer simulations and all of the
12 associated documentation required for filing.

13
14 Therefore, in addition to the "Base Case" forecast of future fuel prices,
15 FPL prepared "Low" and "High" fuel price forecasts to define a
16 reasonable range of fuel oil and gas prices. We then used these alternate
17 forecasts as inputs to the POWRSYM model to determine what the Fuel
18 Factor would be if it were based on fuel prices at either end of the range.
19 This gives us the flexibility to propose the Fuel Factor that most
20 appropriately reflects our view of future fuel oil and gas prices at the
21 time of the projection filing.

22

1 **Q. Why did you prepare alternate forecasts for fuel oil and gas supply**
2 **only?**

3 **A.**Because coal prices and petroleum coke prices have been and are
4 expected to continue to be steady, and gas transportation costs are well
5 defined.

6

7 **Q. How is your testimony organized?**

8 **A.**My testimony first describes the basis for the "Base Case" fuel price
9 forecast for oil, coal and petroleum coke, and gas, as well as the
10 projection for gas availability. Then it describes the "Low" and "High"
11 price forecasts for fuel oil and gas supply. Then my testimony addresses
12 plant heat rates, outage factors, planned outages, and changes in
13 generation capacity. Lastly, my testimony addresses projected
14 interchange and purchased power transactions.

15

16 **BASE CASE FUEL PRICE FORECAST**

17 **Q. What are the key factors that could affect FPL's price for heavy**
18 **fuel oil during the January through December, 2000 period?**

19 **A.**The key factors are (1) demand for crude oil and petroleum products
20 (including heavy fuel oil), (2) non-OPEC crude oil production, (3) the
21 extent to which OPEC production matches actual demand for OPEC
22 crude oil, (4) the price relationship between heavy fuel oil and crude oil,

1 and (5) the terms of FPL's heavy fuel oil supply and transportation
2 contracts.

3
4 In the Base Case, world demand for crude oil and petroleum products is
5 projected to be somewhat stronger in 2000 than in early 1999 due to
6 improved world economic conditions expected in 2000, especially in
7 Asia. And although crude oil production capacity will be more than
8 adequate to meet the projected strong crude demand, general adherence
9 by OPEC members to its most recent production accord will prevent
10 significant overproduction.

11

12 **Q. What is the projected relationship between heavy fuel oil and crude**
13 **oil prices during the January through December, 2000 period?**

14 A. The price of heavy fuel oil on the U. S. Gulf Coast (1.0% sulfur) is
15 projected to be approximately 79% of the price of West Texas
16 Intermediate (WTI) crude oil during this period.

17

18 **Q. Please provide FPL's projection for the dispatch cost of heavy fuel**
19 **oil for the January through December, 2000 period.**

20 A. FPL's Base Case projection for the system average dispatch cost of
21 heavy fuel oil, by sulfur grade, by month, is provided on page 3 of
22 Appendix I in dollars per barrel.

1

2 **Q. What are the key factors that could affect the price of light fuel oil?**

3 A. The key factors that affect the price of light fuel oil are similar to those
4 described above for heavy fuel oil.

5

6 **Q. Please provide FPL's projection for the dispatch cost of light fuel oil
7 for the period from January through December, 2000.**

8 A. FPL's Base Case projection for the average dispatch cost of light oil, by
9 sulfur grade, by month, is shown on page 4 of Appendix I.

10

11 **Q. What is the basis for FPL's projections of the dispatch cost for St.
12 Johns' River Power Park (SJRPP) and Scherer Plant?**

13 A. FPL's projected dispatch cost for SJRPP is based on FPL's price
14 projection for spot coal and petroleum coke delivered to SJRPP. The
15 dispatch cost for Scherer is based on FPL's price projection for spot coal
16 delivered to Scherer Plant.

17

18 For SJRPP, annual coal volumes delivered under long-term contracts
19 are fixed on October 1st of the previous year. For Scherer Plant, the
20 annual volume of coal delivered under long-term contracts is set by the
21 terms of the contracts. Therefore, the price of coal delivered under long-
22 term contracts does not affect the daily dispatch decision.

1

2 In the case of SJRPP, FPL will continue to blend petroleum coke with
3 the coal in order to reduce fuel costs. It is anticipated that petroleum
4 coke will represent 17.5% of the fuel blend at SJRPP during 2000. The
5 lower price of petroleum coke is reflected in the projected dispatch cost
6 for SJRPP, which is based on this projected fuel blend.

7

8 **Q. Please provide FPL's projection for the dispatch cost for SJRPP**
9 **and Scherer Plant for the January through December, 2000 period.**

10 A. FPL's projected system weighted average dispatch cost of "solid fuel"
11 (coal and petroleum coke) for this period, in dollars per million BTU,
12 delivered to plant, is shown on page 5 of Appendix I.

13

14 **Q. What are the factors that can affect FPL's natural gas prices during**
15 **the January through December, 2000 period?**

16 A. In general, the key factors are (1) domestic natural gas demand and
17 supply, (2) natural gas imports, (3) heavy fuel oil prices and (4) the
18 terms of FPL's gas supply and transportation contracts. The dominant
19 factors influencing the projected price of natural gas in 2000 are: (1)
20 projected natural gas demand in North America will continue to grow
21 gradually in 2000, and (2) natural gas deliverability increases from the
22 U.S. Gulf Coast to the market will be available to meet demand

1 increases.

2

3 **Q. What are the factors that affect the availability of natural gas to**
4 **FPL during the January through December, 2000 period?**

5 **A.** The key factors are (1) the existing capacity of natural gas transportation
6 facilities into Florida, (2) the portion of that capacity that is
7 contractually allocated to FPL on a firm, "guaranteed" basis each month
8 and (3) the natural gas demand in the State of Florida.

9

10 The current capacity of natural gas transportation facilities into the State
11 of Florida is 1,455,000 million BTU per day (including FPL's firm
12 allocation of 455,000 to 650,000 million BTU per day during this
13 period, depending on the month). Total demand for natural gas in the
14 State during the period (including FPL's firm allocation) is projected to
15 be between 70,000 and 225,000 million BTU per day below the
16 pipeline's total capacity. This projected available pipeline capacity could
17 enable FPL to acquire and deliver additional natural gas, beyond FPL's
18 455,000 to 650,000 million BTU per day of firm, "guaranteed"
19 allocation, should it be economically attractive, relative to other energy
20 choices.

21

22 **Q. Please provide FPL's projections for the dispatch cost and**

1 **availability (to FPL) of natural gas for the January through**
2 **December, 2000 period.**

3 A. FPL's Base Case projections of the system average dispatch cost and
4 availability of natural gas are provided on page 6 of Appendix I.

5

6 **"LOW" and "HIGH" PRICE FORECASTS FOR FUEL OIL AND**
7 **GAS SUPPLY**

8 Q. **What is the basis for the "Low" forecast for fuel oil and gas**
9 **supply?**

10 A. The "Low" forecast prices for fuel oil and gas supply were set such that
11 based on the consensus among FPL's fuel buyers and analysts, there is
12 less than a 15% likelihood that the actual price of each fuel for each
13 month in the January through December, 2000 period will be below the
14 "Low" price forecast.

15

16 Q. **Please provide the "Low" price forecasts for fuel oil and gas supply.**

17 A. FPL's projection for the average dispatch cost of heavy fuel oil, by
18 sulfur grade, by month, based on the "Low" price forecast is provided
19 on page 7 of Appendix I, in dollars per barrel. FPL's projection for the
20 average dispatch cost of light fuel oil based on the "Low" price forecast,
21 by sulfur grade, by month, is shown on page 8 of Appendix I. FPL's
22 projections of the system average dispatch cost of natural gas based on

1 the "Low" price forecast are provided on page 9 of Appendix I.

2

3 **Q. What is the basis for the "High" forecast for fuel oil and gas**
4 **supply?**

5 A. The "High" forecast prices for fuel oil and gas supply were set such that,
6 based on the consensus among FPL's fuel buyers and analysts, there is
7 less than a 15% likelihood that the actual price of each fuel for each
8 month in the January through December, 2000 period will be above the
9 "High" price forecast.

10

11 **Q. Please provide the "High" price forecasts for fuel oil and gas**
12 **supply.**

13 A. FPL's projection for the average dispatch cost of heavy fuel oil, by
14 sulfur grade, by month, based on the "High" price forecast is provided
15 on page 10 of Appendix I, in dollars per barrel. FPL's projection for the
16 average dispatch cost of light fuel oil based on the "High" price forecast,
17 by sulfur grade, by month, is shown on page 11 of Appendix I. FPL's
18 projections of the system average dispatch cost of natural gas based on
19 the "High" price forecast are provided on page 12 of Appendix I.

20

21 **Q. Based on FPL's current (October, 1999) view of the fuel oil and gas**
22 **markets, at what level do you now project prices will be during the**
23 **January through December, 2000 period ?**

1 A. Based on current market conditions, and consistent with our September,
2 1999 forecast, FPL now projects that actual fuel oil and gas prices
3 during the January through December, 2000 period will be very close to
4 those projected in the "High" price forecast. In other words, fuel oil and
5 gas prices are now projected to be at, or slightly higher than, those in the
6 "High" price forecast, and significantly higher than those in the "Base
7 Case" forecast during 2000. Therefore, the projected fuel costs
8 calculated by POWRSYM using the "High" oil and gas price forecast
9 are the most appropriate projected costs for the January through
10 December, 2000 period. As stated in the testimony of Korel Dubin, this
11 "High" oil and gas price forecast was used to calculate the proposed
12 Fuel Factor for the period January through December, 2000.

13
14 **Q. To what changes in market conditions do you attribute the higher**
15 **fuel price projections reflected in your September, 1999 fuel price**
16 **forecast?**

17 A. Recent crude oil prices have been above \$23 per barrel and residual fuel
18 oil prices have been above \$19 per barrel. This is due to the fact that
19 OPEC members have steadfastly continued to adhere to the cartel's
20 production accord, as well as the success of an alliance forged by Saudi
21 Arabia, Mexico and Norway to effectively manage crude oil production
22 to more precisely match demand and thus prevent price drops. These

1 conditions are projected to continue during 2000. As a result, fuel oil
2 prices are now projected to be at levels consistent with FPL's "High"
3 price forecast.

4
5 Recently, gas prices have been above \$2.60/MMBtu. This is due to the
6 fact that gas demand in North America continues to grow, while
7 increases in gas deliverability from the U.S. Gulf Coast production areas
8 to the market are developing at a slower pace than had been anticipated.
9 These conditions are projected to continue during 2000. As a result,
10 natural gas prices are now projected to be at levels consistent with
11 FPL's "High" price forecast.

12
13 **PLANT HEAT RATES, OUTAGE FACTORS, PLANNED**
14 **OUTAGES, and CHANGES IN GENERATING CAPACITY**

15 **Q. Please describe how you have developed the projected unit Average**
16 **Net Operating Heat Rates shown on Schedule E4 of Appendix II.**

17 **A.** The projected Average Net Operating Heat Rates were calculated by the
18 POWRSYM model. The current heat rate equations and efficiency
19 factors for FPL's generating units, which present heat rate as a function
20 of unit power level, were used as inputs to POWRSYM for this
21 calculation. The heat rate equations and efficiency factors are updated
22 as appropriate, based on historical unit performance and projected

1 changes due to plant upgrades, fuel grade changes, or results of
2 performance tests.

3

4 **Q. Are you providing the outage factors projected for the period**
5 **January through December, 2000?**

6 A. Yes. This data is shown on page 13 of Appendix I.

7

8 **Q. How were the outage factors for this period developed?**

9 A. The unplanned outage factors were developed using the actual historical
10 full and partial outage event data for each of the units. The historical
11 unplanned outage factor of each generating unit was adjusted, as
12 necessary, to eliminate non-recurring events and recognize the effect of
13 planned outages to arrive at the projected factor for the January through
14 December, 2000 period.

15

16 **Q. Please describe significant planned outages for the January through**
17 **December, 2000 period.**

18 A. Planned outages at our nuclear units are the most significant in relation
19 to Fuel Cost Recovery. Turkey Point Unit No. 3 is scheduled to be out
20 of service for refueling from February 28, 2000, until April 3, 2000, or
21 thirty-five days during the projected period. St. Lucie Unit No. 2 will be
22 out of service for refueling from April 17, 2000, until May 22, 2000, or

1 thirty-five days during the projected period. Turkey Point Unit No. 4
2 will be out of service for refueling from October 2, 2000, until
3 November 6, 2000, or thirty-five days during the projected period.
4 There are no other significant planned outages during the projected
5 period.

6
7 **Q. Are any changes to FPL's "continuous" generation capacity**
8 **planned during the January through December, 2000 period?**

9 A. Yes, Net Winter Continuous Capability (NWCC) at Cape Canaveral
10 Unit No.2 will increase by 6 MW, from 400 MW to 406 MW, and its
11 Net Summer Continuous Capability will increase by 6 MW, from 397
12 MW to 403 MW, as a result of upgrading and refurbishing the unit's
13 boiler and steam turbine.

14

15 **INTERCHANGE and PURCHASED POWER TRANSACTIONS**

16 **Q. Are you providing the projected interchange and purchased power**
17 **transactions forecasted for January through December, 2000?**

18 A. Yes. This data is shown on Schedules E6, E7, E8, and E9 of Appendix
19 II of this filing.

20

21 **Q. What fuel price forecast for fuel oil and gas supply was used to**
22 **project interchange and purchased power transactions?**

1 A. The interchange and purchased power transactions presented below, and
2 on Schedules E6, E7, E8 and E9 of Appendix II of this filing were
3 developed using the "High" fuel price forecast for fuel oil and gas
4 supply.

5
6 **Q. In what types of interchange transactions does FPL engage?**

7 A. FPL purchases interchange power from others under several types of
8 interchange transactions which have been previously described in this
9 docket: Emergency - Schedule A; Short Term Firm - Schedule B;
10 Economy - Schedule C; Extended Economy - Schedule X; Opportunity
11 Sales - Schedule OS; UPS Replacement Energy - Schedule R and
12 Economic Energy Participation - Schedule EP.

13
14 For services provided by FPL to other utilities, FPL has developed
15 amended Interchange Service Schedules, including AF (Emergency),
16 BF (Scheduled Maintenance), CF (Economy), DF (Outage), and XF
17 (Extended Economy). These amended schedules replace and supersede
18 existing Interchange Service Schedules A, B, C, D, and X for services
19 provided by FPL.

20
21 **Q. Does FPL have arrangements other than interchange agreements**
22 **for the purchase of electric power and energy which are included in**

1 **your projections?**

2 A. Yes. FPL purchases coal-by-wire electrical energy under the 1988 Unit
3 Power Sales Agreement (UPS) with the Southern Companies. FPL has
4 contracts to purchase nuclear energy under the St. Lucie Plant Nuclear
5 Reliability Exchange Agreements with Orlando Utilities Commission
6 (OUC) and Florida Municipal Power Agency (FMPPA). FPL also
7 purchases energy from JEA's portion of the SJRPP Units. Additionally,
8 FPL purchases energy and capacity from Qualifying Facilities under
9 existing tariffs and contracts.

10

11 **Q. Please provide the projected energy costs to be recovered through**
12 **the Fuel Cost Recovery Clause for the power purchases referred to**
13 **above during the January through December, 2000 period.**

14 A. Under the UPS agreement FPL's capacity entitlement during the
15 projected period is 921 MW from January through December, 2000.
16 Based upon the alternate and supplemental energy provisions of UPS,
17 an availability factor of 100% is applied to these capacity entitlements to
18 project energy purchases. The projected UPS energy (unit) cost for this
19 period, used as an input to POWRSYM, is based on data provided by
20 the Southern Companies. For the period, FPL projects the purchase of
21 6,285,797 MWH of UPS Energy at a cost of \$91,181,160. In addition,
22 we project the purchase of 2,495,415 MWH of UPS Replacement
23 energy (Schedule R) at a cost of \$48,619,150. The total UPS Energy

1 plus Schedule R projections are presented on Schedule E7 of Appendix
2 II.

3
4 Energy purchases from the JEA-owned portion of the St. Johns River
5 Power Park generation are projected to be 2,993,355 MWH for the
6 period at an energy cost of \$33,650,180. FPL's cost for energy
7 purchases under the St. Lucie Plant Reliability Exchange Agreements is
8 a function of the operation of St. Lucie Unit 2 and the fuel costs to the
9 owners. For the period, we project purchases of 475,100 MWH at a
10 cost of \$1,591,100. These projections are shown on Schedule E7 of
11 Appendix II.

12 In addition, as shown on Schedule E8 of Appendix II, we project that
13 purchases from Qualifying Facilities for the period will provide
14 6,732,332 MWH at a cost to FPL of \$122,436,664.

15
16 **Q. How were energy costs related to purchases from Qualifying**
17 **Facilities developed?**

18 **A.** For those contracts that entitle FPL to purchase "as-available" energy
19 we used FPL's fuel price forecasts as inputs to the POWRSYM model to
20 project FPL's avoided energy cost that is used to set the price of these
21 energy purchases each month. For those contracts that enable FPL to
22 purchase firm capacity and energy, the applicable Unit Energy Cost

1 mechanism prescribed in the contract is used to project monthly energy
2 costs.

3

4 **Q. Have you projected Schedule A/AF - Emergency Interchange**
5 **Transactions?**

6 A. No purchases or sales under Schedule A/AF have been projected since it
7 is not practical to estimate emergency transactions.

8

9 **Q. Have you projected Schedule B/BF - Short-Term Firm Interchange**
10 **Transactions?**

11 A. No commitment for such transactions had been made when projections
12 were developed. Therefore, we have estimated that no Schedule BF
13 sales or Schedule B purchases would be made in the projected period.

14

15 **Q. Please describe the method used to forecast the Economy**
16 **Transactions.**

17 A. The quantity of economy sales and purchase transactions are projected
18 based upon historic transaction levels, adjusted to remove non-recurring
19 factors.

20

21 **Q. What are the forecasted amounts and costs of Economy energy**
22 **sales?**

1 A. We have projected 5,500 MWH of Economy energy sales for the
2 period. The projected fuel cost related to these sales is 138,432. The
3 projected transaction revenue from the sales is \$160,782. Eighty percent
4 of the gain for Schedule C is \$17,880 and is credited to our customers.

5

6 **Q. In what document are the fuel costs of economy energy sales**
7 **transactions reported?**

8

9 A. Schedule E6 of Appendix II provides the total MWH of energy and total
10 dollars for fuel adjustment. The 80% of gain is also provided on
11 Schedule E6 of Appendix II.

12

13 **Q. What are the forecasted amounts and costs of Economy energy**
14 **purchases for the January to December, 2000 period?**

15 A. The costs of these purchases are shown on Schedule E9 of Appendix II.
16 For the period FPL projects it will purchase a total of 1,641,9794 MWH
17 at a cost of \$29,906,800. If generated, we estimate that this energy
18 would cost \$32,061,088. Therefore, these purchases are projected to
19 result in savings of \$2,154,288.

20

21 **Q. What are the forecasted amounts and cost of energy being sold**
22 **under the St. Lucie Plant Reliability Exchange Agreement?**

1 A. We project the sale of 534,974 MWH of energy at a cost of \$1,729,200.
2 These projections are shown on Schedule E6 of Appendix II.

3 **SUMMARY**

4 **Q. Would you please summarize your testimony?**

5 A. Yes. In my testimony I have presented FPL's fuel price projections for
6 the fuel cost recovery period of January through December, 2000,
7 including FPL's "Base Case," "Low" and "High" price forecasts for fuel
8 oil and gas supply. I have explained why the projected fuel costs
9 developed using the "High" price forecast are the most appropriate for
10 the January through December, 2000 period. In addition, I have
11 presented FPL's projections for generating unit heat rates and
12 availabilities, and the quantities and costs of interchange and other
13 power transactions for the same period. These projections were based
14 on the best information available to FPL, and were used as inputs to the
15 POWRSYM model in developing the projected Fuel Cost Recovery
16 Factor for the January through December, 2000 period.

17

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

19 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF R. SILVA

DOCKET NO. 990001-EI

OCTOBER 1, 1999

1 Q. Please state your name and business address.

2 A. My name is Rene Silva and my business address is 700 Universe Boulevard, Juno Beach,
3 Florida 33408.

4

5 Q. Mr. Silva, would you please state your present position with Florida Power and Light
6 Company (FPL).

7 A. I am the Manager of Planning, Forecasting and Regulatory Response in the Power
8 Generation Business Unit of FPL.

9

10 Q. Mr. Silva, have you previously had testimony presented in this docket?

11 A. Yes, I have.

12

13 Q. Mr. Silva, what is the purpose of your testimony?

14 A. The purpose of my testimony is to present the target unit average net operating heat rates
15 and target unit equivalent availability for the period of January through December, 2000,
16 for use in determining the Generating Performance Incentive Factor (GPIF).

17

18 Q. Mr. Silva, please summarize what the FPL system targets are for Equivalent
19 Availability Factor (EAF) and Average Net Operating Heat Rate (ANOHR).

20 A. For the period of January through December, 2000, FPL projects a weighted system
21 equivalent planned outage factor of 5.9 % and a weighted system equivalent unplanned
22 outage factor of 5.9 %, which yield a weighted system equivalent availability target of

1 88.1 %. The targets for this period reflect planned refueling outages for three nuclear
2 units. FPL also projects weighted system average net operating heat rate target of 9473
3 BTU/KWH for the period January through December, 2000. As discussed later in this
4 testimony, these targets represent fair and reasonable values when compared to historical
5 data. FPL therefore requests that the targets for these performance indicators be approved
6 by the Commission.

7
8 **Q. Have you prepared, or caused to have prepared under your direction, supervision or**
9 **control, an exhibit in this proceeding?**

10 A. Yes, I have. It consists of one document. The first page of this document is an index to the
11 contents of the document. All other pages are numbered according to the latest revisions
12 of the GPIF Manual as approved by the Commission.

13
14 **Q. Have you established target levels of performance for the units to be considered in**
15 **establishing the GPIF for FPL?**

16 A. Yes, I have. In my Document No.1, pages 6 and 7, contain the information summarizing
17 the targets and ranges for unit equivalent availability and average net operating heat rates
18 for the eighteen (18) generating units which FPL proposes to have considered as GPIF
19 units for the period of January through December, 2000. The Sheets presented in these
20 pages were prepared in accordance with the latest revisions of the GPIF Manual. All of
21 these targets have been derived utilizing methodologies as adopted in Section 4, Subsection
22 2.3 of the GPIF Manual.

23
24 **Q. Please summarize FPL's methodology for determining equivalent availability targets?**

25 A. The GPIF Manual requires that the equivalent availability target for each unit be
26 determined as the difference between 100% and the sum of the Planned Outage Factor
27 (POF) and the Unplanned Outage Factor (UOF). The POF for each unit is determined by

1 the length of the planned outage during the projected period. The GPIF Manual also
2 requires that the sum of the most recent twelve month ending average forced outage factor
3 (FOF) and maintenance outage factor (MOF) be used as the starting value for the
4 determination of the target unplanned outage factor (UOF). The UOF is then adjusted to
5 reflect recent unit performance and known unit modifications or equipment changes. This
6 adjustment is applied to units, which have had, during the historical period, or are
7 forecasted to have, during the projection period, planned outages.

8
9 **Q. Mr. Silva, were the EAF targets for the GPIF units determined using the**
10 **methodology as described in the GPIF Operating Manual?**

11 **A. Yes.**
12

13 **Q. How did you select the units to be considered when establishing the GPIF for FPL?**

14 **A.** The eighteen (18) units which FPL proposes to use for the period of January through
15 December, 2000, represent the top 80.42% of the total forecasted system net generation for
16 this period. These units were selected in accordance with the GPIF Manual Section 3.1,
17 using the estimated net generation for each unit taken from the production costing
18 simulation program, POWRSYM, which forms the basis for the projected levelized fuel
19 cost recovery factor for the period.
20

21 **Q. Mr. Silva, from the heat rate targets and equivalent availability range projections, do**
22 **FPL's generation performance targets represent a reasonable level of efficiency?**

23 **A.** Yes. These targets are reasonable and in some cases very challenging.
24

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

26 **A.** Yes, it does.

**FLORIDA POWER CORPORATION
DOCKET No. 990001-EI**

**Fuel and Capacity Cost Recovery
Final True-up Amounts for
April 1998 through December 1998**

**DIRECT TESTIMONY OF
JOHN SCARDINO, JR.**

Q. Please state your name and business address.

A. My name is John Scardino, Jr. My business address is P. O. Box 14042, St. Petersburg, Florida 33733.

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

A. I am employed by Florida Power Corporation (FPC) in the capacity of Vice President and Controller. In addition, I also hold the position of Vice President and Controller of Florida Progress Corporation, the holding company of Florida Power Corporation.

Q. Have your duties and responsibilities with FPC remained the same since you last testified in this proceeding?

A. Yes.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe the Company's Fuel Cost Recovery Clause final true-up amount for the period of April 1998 through December 1998, and the Company's Capacity Cost Recovery Clause final true-up amount for the same period.

Q. Have you prepared exhibits to your testimony?

A. Yes, I have prepared a three-page true-up variance analysis which examines the difference between the estimated fuel true-up and the actual period-end fuel true-up. This variance analysis is attached to my prepared testimony and designated Exhibit No. __ (JS-1). Also attached to my prepared testimony and designated Exhibit No. ____ (JS-2) are the Capacity Cost Recovery Clause true-up calculations for the April 1998 through December 1998 period. My third exhibit will present the revenues and expenses associated with the purchase of the Tiger Bay facility approved in Docket No. 970096-EQ and the corresponding amortization. This presentation is also attached to my prepared testimony and designated Exhibit No. ____ (JS-3). Also, I will sponsor the applicable Schedules A1 through A9 for the period to date through December 1998, which have been previously filed with the Commission, and are also attached to my prepared testimony for ease of reference and designated as Exhibit No. ____ (JS-4).

Q. What is the source of the data that you will present by way of testimony or exhibits in this proceeding?

A. Unless otherwise indicated, the actual data is taken from the books and records of the Company. The books and records are kept in the regular course of business in accordance with generally accepted accounting principles and practices, and provisions of the Uniform System of Accounts as prescribed by this Commission.

FUEL COST RECOVERY

Q. What is the Company's jurisdictional ending balance as of December 31, 1998 for fuel cost recovery?

A. The actual ending balance as of December 31, 1998 for true-up purposes is an over-recovery of \$21,595,398.

Q. How does this amount compare to the estimated 1998 ending balance included in the Company's projections for calendar year 1999?

A. An estimated year-end over-recovery of \$6,491,587 was included in the 1999 projections and is being credited to customers through FPC's currently effective fuel cost recovery factor. When this amount is compared to the actual year-end over-recovery balance of \$21,595,398, the final net true-up attributable to the nine-month period ended December 31, 1998 is an over-recovery of \$15,103,811.

Q. How was the final true-up ending balance determined?

A. The amount was determined in the manner set forth on Schedule A2 of the Commission's standard forms previously submitted by the Company on a monthly basis.

Q. What factors contributed to the period-ending jurisdictional over-recovery of \$21.6 million as shown on your Exhibit No. ____ (JS-1)?

- A. The factors contributing to the over-recovery are summarized on Sheet 1 of 3. The actual jurisdictional KWH sales were higher than the original estimate by 1,548,425,261 KWH. This increase in KWH sales, attributable to abnormally warm weather, resulted in higher jurisdictional fuel revenues of \$22.9 million. When revenues are adjusted for the estimated prior period true-up provision, the resulting current period net revenues are \$37.8 million. The \$20.4 million unfavorable variance in jurisdictional fuel and purchased power expense was primarily attributable to the increased fuel usage required to meet the demand associated with the warmer weather.

When the differences in jurisdictional revenues and jurisdictional fuel expenses are combined, the net result is an over-recovery of \$17.4 million related to the April 1998 through December 1998 time period. Other factors not directly related to the period include a \$5.0 million refund of prior period costs and \$0.7 million recovery in interest. This results in the actual ending over-recovery balance of \$21.6 million, as of December 31, 1998.

- Q. Please explain the components shown on Exhibit No. ____ (JS-1), Sheet 2 of 3 which produced the \$21.1 million unfavorable system variance from the projected cost of fuel and net purchased power transactions.
- A. Sheet 2 of 3 shows an analysis of the system variance for each energy source in terms of three interrelated components: (1) changes in the

amount (MWH's) of energy required; (2) changes in the heat rate, or efficiency, of generated energy (BTU's per KWH); and (3) changes in the unit price of either fuel consumed for generation (\$ per million BTU) or energy purchases and sales (cents per KWH).

Q. What effect did these components have on the system fuel and net power variance for the true-up period?

A. As can be seen from Sheet 2 of 3, variances in the amount of MWH requirements from each energy source (column B) combined to produce a cost increase of \$54.6 million. I will discuss this component of the variance analysis in greater detail below.

The heat rate variance for each source of generated energy (column C) reflected a favorable variance of \$1.0 million. This variance was the direct result of using higher amounts of efficient fuel sources such as gas to make up for base load unit's unavailability for dispatch.

A cost decrease of \$32.4 million resulted from the price variance (column D), which was caused by a number of sources detailed on lines 1 through 19 of Sheet 2 of 3, of Exhibit (JS-1). The most significant factors contributing to the favorable variance were the larger than expected decrease in heavy oil prices of \$25.3 million due to an over-supply of oil in the market place and the decrease in QF energy costs due to lower as-available pricing which is a result of the lower actual oil prices when compared to estimate.

Q. What were the major contributors to the \$54.6 million cost increase associated with the variance in MWH requirements?

A. The primary reason for the unfavorable variance in MWH requirements is the 1.5 million increase in KWH sales. The abnormally warm summer weather created an unexpected increase in MWH usage, causing an increase in energy cost as the more costly peaking fuels were utilized, which also contributed to the unfavorable price variance in purchased power costs. The effect that generation mix has on total net system fuel and purchased power cost is another reason for the unfavorable variance in MWH requirements. Although this interrelationship is generally understood to exist, it is not readily apparent from the individual variances contained in the A Schedules or in the analysis presented on Sheet 2 of 3. For example, a decrease in the MWH requirements of coal generation shows up on Schedule A3 and on Sheet 2 of my exhibit as a cost decrease of \$11.5 million. While this may be correct in isolation, the true effect of decreased coal generation is obviously a corresponding increase in the MWH requirements of other more costly energy sources.

Q. Does this nine-month period's ending balance include any noteworthy adjustments to fuel expense as shown on exhibit (JS-4), Schedule A2, page 1 of 4, footnote to line 6b ?

- A. Yes, Exhibit No. ____ (JS-4) shows other jurisdictional adjustments to fuel expense. Noteworthy adjustment include recovery of the Company's Intercession City P7-10, Debarry P7 and P9, Bartow P2 and P4, and Suwannee P1 and P3 Gas Conversion Projects.
- Q. Did ratepayers benefit from the investment in the Gas Conversion projects approved by the Commission?**
- A. Yes, for the true-up period the estimated system fuel savings related to the gas conversion projects was \$11,614,607. The total system depreciation and return was \$2,679,212, resulting in a net system benefit to ratepayers of \$8,935,395. A schedule of depreciation and return for each gas conversion unit showing the development of these savings is included in Exhibit No. ____ (JS - 1), sheet 3 of 3.
- Q. Does this nine-month period's ending balance include any other noteworthy adjustments to fuel expense as shown on exhibit (JS-4), Schedule A2, page 1 of 4, footnote to line 6b ?**
- A. Yes. For the period, the Company has excluded \$0.7 million of inefficient fuel associated with the testing of Hines Unit I and capitalized those costs to that Unit's work order. The fair value of the remaining fuel burned at Hines Unit I is reflected within the A Schedules as part of recoverable fuel expense in accordance with Commission Order No. 94-1160-FOF-EI.

Q. Has the Company passed any sulfur dioxide emission allowance transactions through the current or prior periods fuel adjustment clause?

A. Yes, in prior fuel adjustment clause periods, the Company has passed through \$956,804 of proceeds from the mandated EPA Sulfur Dioxide Emission Allowance Auction as a credit to fuel expense. This amount represents the auction proceeds for the years 1993 through 1997. Additionally, the company has incurred \$951,350 of expense for the purchase of 10,900 SO₂ allowances. Under the provisions of the Clean Air Act Amendments of 1990, a percentage of FPC's allowances are withheld each year to populate a pool of allowances which EPA offers for sale at auction. Although anyone can purchase, the real intent of the allowance pool was to ensure that allowances would be available for new units or new entrants to the energy market. Once these allowances are sold, proceeds are returned to the company that provided the allowances.

During the nine-month true-up period, the Company did not purchase, but did receive proceeds of \$183,791 from the mandated EPA Sulfur Dioxide Emissions Allowance Auction and has applied those proceeds as a credit to fuel expense. In the future FPC may purchase additional allowances depending on market conditions and the Company's SO₂ compliance status.

Q. Were there any other unusual costs included in the current true-up period?

A. Yes. On January 20, 1997, FPC entered into an agreement with Tiger Bay Limited Partnership to purchase the Tiger Bay cogeneration facility and terminate the five related purchase power agreements. The purchase agreement approved in Docket No. 970096-EQ was executed on July 15, 1997, at which time Tiger Bay became one of FPC's generating facilities. Pursuant with the terms and conditions of the approved stipulation, FPC will continue to collect revenues from its ratepayer's as if the five related purchase power agreements were still in effect. The revenues collected would then be used to offset all fuel expenses relating to the Tiger Bay facility of \$26.0 million for the current nine-month period and interest applicable to the unamortized balance of the retail portion of the Tiger Bay regulatory asset, with any remaining balance used to amortize the regulatory asset. Approximately, \$75 million of the purchase price was included in the existing rate base. The remaining amount was set up as a regulatory asset for the retail jurisdiction, according to FPC's jurisdictional separation at that time. The method for amortizing the Tiger Bay Regulatory asset approved in the stipulation, using PPA revenues minus fuel expense and interest is expected to result in the retail regulatory asset being fully amortized by January 2008. Exhibit No. ____ (JS-3) shows a year-end Tiger Bay retail regulatory asset balance of \$320,998,634, computed in accordance with the approved

stipulation. This balance reflects an additional reduction of \$14 million in accelerated amortization.

CAPACITY COST RECOVERY

- Q. What is the Company's jurisdictional ending balance as of December 31, 1998 for capacity cost recovery?**
- A. The actual ending balance as of December 31, 1998 for true-up purposes is an over-recovery of \$222,119.
- Q. How does this amount compare to the estimated 1998 ending balance included in the Company's projections for calendar year 1999?**
- A. When the estimated under-recovery of \$4,856,714 to be collected during 1999 is compared to the \$222,119 final actual over-recovery, the final net true-up attributable to the nine-month period ended December 1998 is an over-recovery of \$5,078,833.
- Q. Is this true-up calculation consistent with the true-up methodology used for the other cost recovery clauses?**
- A. Yes. The calculation of the final net true-up amount follows the procedures established by this Commission as set forth on Schedule A2 "Calculation of True-Up and Interest Provision" for the Fuel Cost Recovery Clause.
- Q. What factors contributed to the actual period-end over-recovery of \$0.2 million?**

- A. Exhibit No. _____ (JS-2), sheet 1 of 3, entitled "Capacity Cost Recovery Clause Summary of Actual True-Up Amount," compares the summary items from sheet 2 of 3 to the original forecast for the period. As can be seen from sheet 1, the actual jurisdictional capacity cost revenues were higher than forecasted revenues, and net capacity expenses were lower resulting in the \$6.0 million favorable variance. However, once the prior period true-up is flowed back, a resulting ending actual true-up balance of \$0.2 million is reflected.

Q. Why does the Company's beginning true-up balance differ from the \$1,695,400 over-recovery approved for flowback?

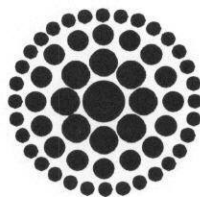
- A. The beginning under-recovery balance of \$9,662,568 shown on JS-2, sheet 2 of 3, line 42, includes capacity payments made to Orlando Cogen, Ltd., under an early termination agreement that the Commission decided not to approve. The reason for the \$9,662,568 under-recovery beginning balance is that the order denying approval of the agreement was not available until after FPC had already recorded the monthly closing entries for March. In April, the impact of these capacity payments, plus interest, were removed from the capacity clause, along with some small interest adjustments in June and September, and are reflected on line 44 of JS-2, sheet 2 of 3. The removal of these capacity payments brings the beginning balance back to the approved flowback amount of \$1,695,400.

Q. Does this conclude your testimony?

- A. Yes, it does.

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**Florida
Power**
CORPORATION

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

DOCKET No. 990001-EI

**GPIF TARGETS AND RANGES
JANUARY THROUGH DECEMBER 2000**

**DIRECT TESTIMONY
AND EXHIBITS OF**

REBECCA J. MCCLINTOCK

For Filing October 1, 1999

DOCUMENT NUMBER-DATE

11874 OCT-1 99

FPSC-RECORDS/REPORTING

FLORIDA POWER CORPORATION

DOCKET No. 990001-EI

**GPIF Targets and Ranges for
January through December 2000**

**DIRECT TESTIMONY OF
REBECCA J. MCCLINTOCK**

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

2 A. My name is Rebecca J. McClintock. My business address is
3 Post Office Box 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 as a Principal Engineer in
7 Resource Planning, Financial Services.
8

9 **Q. Have the duties and responsibilities of your position with the Company**
10 **remained the same since you last testified in this proceeding?**

11 A. Yes, they have.
12

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

14 A. The purpose of my testimony is to present the development of the
15 Company's Generating Performance Incentive Factor (GPIF) targets and

1 ranges for the period of January through December, 2000. These GPIF
2 targets and ranges have been developed from individual unit equivalent
3 availability and average net operating heat rate targets and
4 improvement/degradation ranges for each of Florida Power's GPIF
5 generating units in accordance with the Commission's Generating
6 Performance Incentive Implementation Manual. This initial presentation
7 of GPIF targets and ranges on an annual, calendar-year basis is in
8 accordance with Commission Order No. PSC-98-0691-FOF-PU.

9
10 **Q. Do you have an exhibit to your testimony?**

11 A. Yes, I will sponsor an exhibit containing 90 pages, which consists of
12 the GPIF standard form schedules prescribed in the Implementation
13 Manual and supporting data, including unplanned outage rates, net
14 operating heat rates, and computer analyses and graphs for each of the
15 individual GPIF units, all of which are attached to my prepared
16 testimony.

17
18 **Q. Which of the Company's generating units have you included in the**
19 **GPIF program for the upcoming projection period?**

20 A. I have included the same units as were Included for the current period,
21 Crystal River Units 1 through 5 and Anclote Units 1 and 2, and two
22 additional units, Bartow Unit 3 and Tiger Bay Unit 1. The two

1 additional units were included to comply with the methodology
2 established for selecting generating units, as set forth in Section 3 of
3 the Implementation Manual. The Company's new Hines Unit 1 was not
4 included for this projection period because its current performance
5 history is not yet sufficient to provide a representative data base for
6 setting targets and ranges.

7
8 **Q. Have you determined the equivalent availability targets and**
9 **improvement/degradation ranges for the Company's GPIF units?**

10 A. Yes, I have. This information is included in the Target and Range
11 Summary on page 3 of my exhibit.

12
13 **Q. How were the equivalent availability targets developed?**

14 A. The equivalent availability targets were developed using the
15 methodology established for the Company's GPIF units, as set forth in
16 Section 4 of the Implementation Manual. This method describes the
17 formulation of graphs based on each unit's historic performance data
18 for the four individual unplanned outage rates (i.e. forced, partial
19 forced, maintenance and partial maintenance outage rates), which in
20 combination constitute the unit's equivalent unplanned outage rate
21 (EUOR). From operational data and these graphs, the individual target
22 rates are determined by inspecting two years of twelve-month rolling

1 averages and the scatter of monthly data points during the two-year
2 period. The unit's four target rates are then used to calculate its
3 unplanned outage hours for the projection period. When the unit's
4 projected planned outage hours are taken into account, the hours
5 calculated from these individual unplanned outage rates can then be
6 converted into an overall equivalent unplanned outage factor (EUOF).
7 Because factors are additive (unlike rates), the unplanned and planned
8 outage factors (EUOF and POF) when added to the equivalent
9 availability factor (EAF) will always equal 100%. For example, an
10 EUOF of 15% and a POF of 10% results in an EAF of 75%.

11
12 The supporting graphs and a summary table of all target and range
13 rates are contained in the section of my exhibit entitled "Unplanned
14 Outage Rate Tables and Graphs".

15
16 **Q. What is the target equivalent availability factor for Crystal River 3?**

17 **A.** The EAF target for Crystal River Unit 3 is 93.43%. The unit's EUOR
18 and EUOF targets are both 6.57% since there are no planned outage
19 hours estimated for the year 2000.

20
21 The availability targets for the 2000 period were developed after
22 removing from the historical data all forced outage hours associated

1 with the September 1996 to February 1998 shutdown of the unit to
2 address certain design issues related to backup safety systems,
3 including the emergency diesel generators.
4

5 **Q. Please describe the method utilized in the development of the**
6 **improvement/degradation ranges for each GPIF unit's availability**
7 **targets.**

8 A. In general, the methodology described in the Implementation Manual
9 was used. Ranges were first established for each of the four
10 unplanned outage rates associated with each unit. From an analysis
11 of the unplanned outage graphs, units with small historical variations
12 in outage rates were assigned narrow ranges and units with large
13 variations were assigned wider ranges. These individual ranges,
14 expressed in terms of rates, were then converted into a single unit
15 availability range, expressed in terms of a factor, using the same
16 procedure described above for converting the availability targets from
17 rates to factors.
18

19 **Q. Have you determined the net operating heat rate targets and ranges for**
20 **the Company's GPIF units?**

21 A. Yes, I have. This information is included in the Target and Range
22 Summary on Page 3 of my exhibit.

1 **Q. How were these heat rate targets and ranges developed?**

2 A. The development of the heat rate targets and ranges for the upcoming
3 period utilized historical data from the past three years, as described
4 in the Implementation Manual. A "least squares" computer program
5 was used to curve-fit the heat rate data within ranges having a 90%
6 confidence level of including all data. The computer analyses and data
7 plots used to develop the heat rate targets and ranges for each of the
8 GPIF units are contained in the section of my exhibit entitled "Average
9 Net Operating Heat Rate Curves".
10

11 **Q. How were the GPIF incentive points developed for the unit availability**
12 **and heat rate ranges?**

13 A. GPIF incentive points for availability and heat rate were developed by
14 evenly spreading the positive and negative point values from the target
15 to the maximum and minimum values in case of availability, and from
16 the neutral band to the maximum and minimum values in the case of
17 heat rate. The fuel savings (loss) dollars were evenly spread over the
18 range in the same manner as described for the incentive points. The
19 maximum savings (loss) dollars are the same as those used in the
20 calculation of weighting factors.
21

22 **Q. How were the GPIF weighting factors determined?**

1 A. To determine the weighting factors for availability, a series of PROSYM
2 simulations were made in which each unit's maximum equivalent
3 availability was substituted for the target value to obtain a new system
4 fuel cost. The differences in fuel costs between these cases and the
5 target case determines the contribution of each unit's availability to
6 fuel savings. The heat rate contribution of each unit to fuel savings
7 was determined by multiplying the BTU savings between the minimum
8 and target heat rates (at constant generation) by the average cost per
9 BTU for that unit. Weighting factors were then calculated by dividing
10 each individual unit's fuel savings by total system fuel savings.
11

12 **Q. What was the basis for determining the estimated maximum incentive**
13 **amount?**

14 A. The determination of the maximum reward or penalty was based upon
15 monthly common equity projections obtained from a detailed financial
16 simulation performed by the Company's Corporate Model.
17

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

19 A. Yes.

FLORIDA POWER CORPORATION

Docket No. 990001-EI

Re: GPIF Reward/Penalty Amount for
April through September 1998

**DIRECT TESTIMONY OF
REBECCA J. MCCLINTOCK**

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

2 A. My name is Rebecca J. McClintock. My business address is P. O. 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 as a Principal Engineer in
7 Resource Planning, Financial Services.

8
9 **Q. What are your responsibilities as Principal Engineer?**

10 A. As a Principal Engineer, I am responsible for compiling and reporting
11 various operational statistics regarding the Company's generating system.
12 In particular, my duties include the preparation of the information and
13 material required by the Commission's GPIF mechanism.

14
15 **Q. What is the purpose of your testimony?**

16 A. The purpose of my testimony is to describe the calculation of the Company's
17 Generation Performance Incentive Factor (GPIF) reward/penalty amount for
18 the period of April through September 1998. This was developed by

1 comparing the actual performance of the Company's seven GPIF generating
2 units to the approved targets set for these units prior to the period.
3

4 **Q. Do you have an exhibit to your testimony in this proceeding?**

5 A. Yes, under my direction an exhibit (RJM-1) has been prepared consisting
6 of the numbered sheets which are attached to my prepared testimony. The
7 exhibit contains the schedules required by the GPIF Implementation
8 Manual, which support the development of the incentive amount. I have
9 also included other data forms to supplement the required schedules.
10

11 **Q. What GPIF incentive amount have you calculated for this period?**

12 A. I have calculated the Company's GPIF incentive amount to be a reward of
13 \$340,289. This amount was developed in a manner consistent with the
14 GPIF Implementation Manual. Sheet 1 of my exhibit shows the calculation
15 of system GPIF points and the corresponding reward. The summary of
16 weighted incentive points earned by each individual unit can be found on
17 Sheet 3.
18

19 **Q. How were the incentive points for equivalent availability and heat rate
20 calculated for the individual GPIF units?**

21 A. The calculation of incentive points is made by comparing the adjusted
22 actual performance data for equivalent availability and heat rate to the
23 target performance indicators for each unit. This comparison is shown on

1 the Generating Performance Incentive Points Table found on Sheets 8
2 through 14 of my exhibit.

3
4 **Q. Why is it necessary to make adjustments to the actual performance**
5 **data for comparison with the targets?**

6 A. Adjustments to the actual equivalent availability and heat rate data are
7 necessary to allow their comparison with the "target" Point Tables exactly
8 as approved by the Commission prior to the period. These adjustments are
9 described in the Implementation Manual and are further explained by a Staff
10 memorandum, dated October 23, 1981, directed to the GPIF utilities. The
11 adjustments to actual equivalent availability concern primarily the
12 differences between target and actual planned outage hours, and are
13 shown on Sheet 6 of my exhibit. The heat rate adjustments concern the
14 differences between the target and actual Net Output Factor (NOF), and are
15 shown on Sheet 7. The methodology for both the equivalent availability and
16 heat rate adjustments are explained in the Staff memorandum.

17
18 **Q. Have you provided the as-worked planned outage schedules for the**
19 **Company's GPIF units to support your adjustments to actual**
20 **equivalent availability?**

21 A. Yes. Sheet 22 of my exhibit summarizes every planned outage experienced
22 by the Company's GPIF units during the period. Sheets 23 and 24 present
23 an as-worked critical path chart for each individual planned outage.
24

1 Q. Does this conclude your testimony?

2 A. Yes.

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 990001-EI
CONTINUING SURVEILLANCE AND REVIEW OF
FUEL COST RECOVERY CLAUSES OF ELECTRIC UTILITIES

Direct Testimony of
George M. Bachman
On Behalf of
Florida Public Utilities Company

- 1 Q. Please state your name and business address.
- 2 A. George M. Bachman, 401 South Dixie Highway, West Palm Beach, FL
- 3 33401.
- 4 Q. By whom are you employed?
- 5 A. I am employed by Florida Public Utilities Company.
- 6 Q. Have you previously testified in this Docket?
- 7 A. Yes.
- 8 Q. What is the purpose of your testimony at this time?
- 9 A. I will briefly describe the basis for the computations that were
- 10 made in the preparation of the various Schedules that we have
- 11 submitted in support of the January 2000 - December 2000 fuel cost
- 12 recovery adjustments for our two electric divisions. In addition,
- 13 I will advise the Commission of the projected differences between
- 14 the revenues collected under the levelized fuel adjustment and the
- 15 purchased power costs allowed in developing the levelized fuel
- 16 adjustment for the period January 1999 - December 1999 and to
- 17 establish a "true-up" amount to be collected or refunded during
- 18 January 2000 - December 2000.
- 19 Q. Were the schedules filed by your Company completed under your
- 20 direction?
- 21 A. Yes.
- 22 Q. Which of the Staff's set of schedules has your company completed
- 23 and filed?
- 24 A. We have filed Schedules E1, E1A, E1-B, E1B-1, E2, E7, and E10 for

DOCUMENT NUMBER-DATE

11854 OCT-1 8

FPSC-RECORDS/REPORTING

1 Marianna and E1, E1A, E1-B, E1-B1, E2, E7, E8, and E10 for
2 Fernandina Beach. They are included in Composite Prehearing
3 Identification Number GMB-2.

4 These schedules support the calculation of the levelized fuel
5 adjustment factor for January 2000 - December 2000. Schedule E1-B
6 shows the Calculation of Purchased Power Costs and Calculation of
7 True-Up and Interest Provision for the period January 1999 -
8 December 1999 based on 8 Months Actual and 4 Months Estimated data.

9 Q. In derivation of the projected cost factor for the January 2000 -
10 December 2000, period, did you follow the same procedures that were
11 used in the prior period filings?

12 A. Yes, with the exception of time period. The period covered has
13 been changed to twelve months and a calendar year.

14 Q Why has the GSLD rate class for Fernandina Beach been excluded from
15 these computations?

16 A. Demand and other purchased power costs are assigned to the GSLD
17 rate class directly based on their actual CP KW and their actual
18 KWH consumption. That procedure for the GSLD class has been in use
19 for several years and has not been changed herein. Costs to be
20 recovered from all other classes is determined after deducting from
21 total purchased power costs those costs directly assigned to GSLD.

22 Q. How will the demand cost recovery factors for the other rate
23 classes be used?

24 A. The demand cost recovery factors for each of the RS, GS, GSD and
25 OL-SL rate classes will become one element of the total cost
26 recovery factor for those classes. All other costs of purchased
27 power will be recovered by the use of the levelized factor that is
28 the same for all those rate classes. Thus the total factor for each
29 class will be the sum of the respective demand cost factor and the

1 levelized factor for all other costs.

2 Q. Please address the calculation of the total true-up amount to be
3 collected or refunded during the January 2000 - December 2000.

4 A. We have determined that at the end of December 1999 based on eight
5 months actual and four months estimated, we will have over-
6 recovered \$149,229 in purchased power costs in our Marianna
7 division. Based on estimated sales for the period January 2000 -
8 December 2000, it will be necessary to subtract .05499¢ per KWH to
9 refund this over-recovery.

10 In Fernandina Beach we will have over-recovered \$744,736 in
11 purchased power costs. This amount will be refunded at .26770¢ per
12 KWH during the January 2000 - December 2000 period (excludes GSLD
13 customers). Page 3 and 13 of Composite Prehearing Identification
14 Number GMB-2 provides a detail of the calculation of the true-up
15 amounts.

16 Q. Looking back upon the April 1998 - December 1998 period, what were
17 the actual End of Period - True-Up amounts for Marianna and
18 Fernandina Beach, and their significance, if any?

19 A. The Marianna Division experienced an over-recovery of \$310,906 and
20 Fernandina Beach Division over-recovered \$404,297. The amounts
21 both represent fluctuations of less than 10% from the total fuel
22 charges for the period and are not considered significant variances
23 from projections.

24 Q. What are the final remaining true-up amounts for the period April
25 1998 - December 1998 for both divisions?

26 A. In Marianna the final remaining true-up amount was an over-recovery
27 of \$250,799. The final remaining true-up amount for Fernandina
28 Beach was an over-recovery of \$277,585.

29 Q. What are the estimated true-up amounts for the period of January

- 1 1999 - December 1999.
- 2 A. In Marianna, there is an estimated under-recovery of \$101,570.
- 3 Fernandina Beach has an estimated over-recovery of \$467,151.
- 4 Q. What will the total fuel adjustment factor, excluding demand cost
- 5 recovery, be for both divisions for the period?
- 6 A. In Marianna the total fuel adjustment factor as shown on Line 33,
- 7 Schedule E1, is 2.209¢ per KWH. In Fernandina Beach the total fuel
- 8 adjustment factor for "other classes," as shown on Line 43, Schedule
- 9 E1, amounts to 1.819¢ per KWH.
- 10 Q. Please advise what a residential customer using 1,000 KWH will pay
- 11 for the period January 2000 - December 2000 including base rates,
- 12 conservation cost recovery factors, and fuel adjustment factor and
- 13 after application of a line loss multiplier.
- 14 A. In Marianna a residential customer using 1,000 KWH will pay \$63.04,
- 15 a decrease of .12¢ from the previous period. In Fernandina Beach a
- 16 customer will pay \$57.31, a decrease of .34¢ from the previous
- 17 period.
- 18 Q. Does this conclude your testimony?
- 19 A. Yes.

GULF POWER COMPANY

Before the Florida Public Service Commission

Prepared Direct Testimony and Exhibit of

Michael F. Oaks

Docket No. 990001-EI

Date of Filing: April 1, 1999

Q. Please state your name and business address.

A. My name is Michael F. Oaks and my business address is One Energy Place, Pensacola, Florida 32520-0328.

Q. What is your occupation?

A. I am the Fuel Manager at Gulf Power Company.

Q. Mr. Oaks, will you please describe your education and experience?

A. I graduated from Belhaven College in Jackson, Mississippi, in 1977 with a Bachelor of Science Degree in Chemistry. I joined Gulf Power Company in 1977 as a Chemist. Since then, I have held various positions with the Company, including Water Chemistry Specialist, Water Quality Specialist, Environmental Affairs Specialist, Environmental Audit Administrator, and Compliance Administrator. I was promoted to my present position in May 1996.

Q. What are your duties as Fuel Manager?

A. I supervise and administer the Company's fuel procurement, transportation, budgeting, contract administration, and quality control to ensure the generating plants are provided a high quality fuel supply at the lowest practical cost.

1 Q. Mr. Oaks, have you previously testified before this Commission?

2 A. Yes. I have presented testimony to this Commission previously in this
3 docket.
4

5 Q. Mr. Oaks, what is the purpose of your testimony in this docket?

6 A. The purpose of my testimony is to summarize Gulf Power Company's fuel
7 expenses and to certify that these expenses were properly incurred during
8 the period April 1998 through December 1998. Also, it is my intent to be
9 available to answer questions that may arise among the parties to this
10 docket concerning Gulf Power Company's fuel expenses.
11

12 Q. Have you prepared an exhibit that contains information to which you will
13 refer in your testimony?

14 A. Yes. I have prepared an exhibit consisting of one schedule.
15

16 Counsel: We ask that Mr. Oaks' exhibit consisting of one schedule be
17 marked as Exhibit No. _____ (MFO-1).
18

19 Q. During this period April 1998 through December 1998 how did Gulf's
20 recoverable fuel expenses compare with the projected expenses?

21 A. The total period covered by this response includes two recovery periods:
22 Period 1 - April 1, 1998 through September 30, 1998 and Period 2 -
23 October 1, 1998 through December 31, 1998. Gulf's recoverable fuel
24 expense for Period 1 was \$115,403,933 or 10.26% over the projected
25 amount of \$104,669,673. The recoverable fuel expense for Period 2 was

1 \$37,978,666 or 5.47% under the projected cost of \$40,176,399. The
2 total recoverable fuel expense for both periods was \$153,382,599 as
3 compared with the projected amount of \$144,846,072, or over our
4 estimate by 5.89%. Total net system generation for both periods was
5 9,571,482 MWH compared to the projected generation of 9,202,860 MWH
6 or 4.01% more than predicted. The resulting total fuel cost per KWH
7 generated for both periods was 1.6025¢/KWH or 1.82% over the
8 projected amount for the period of 1.5739¢/KWH. The cost for Period 1
9 was 1.6361¢/KWH or 2.8% over the projected 1.5916¢/KWH, and for
10 Period 2 was 1.5093¢/KWH or 1.3% under the projected 1.5296¢/KWH.

11

12 Q. How much spot coal did Gulf Power Company purchase during the
13 period?

14 A. Excluding Plant Scherer, Gulf purchased 1,674,637 tons or 42% of its
15 supply from the spot coal market. My Schedule 1 of Exhibit No. _____
16 (MFO-1) consists of a list of contract and spot coal suppliers for the period
17 April 1, 1998 - December 31, 1998.

18

19 Q. How did the total projected cost of coal purchased compare with the
20 actual cost?

21 A. Gulf purchased over a quarter million tons, or approximately 6.17% more
22 coal during the period than projected (includes estimated Scherer tons).
23 Consequently, the total cost of coal purchased was higher than projected.
24 For the period April 1, 1998 through December 31, 1998, the total actual
25 cost of coal purchased was \$146,086,155 compared to a projected cost of

1 \$137,874,940 or 5.96% higher than predicted. The cost of coal for
2 Period 1 and Period 2, respectively was \$104,102,405 and \$41,983,750.

3

4 Q. Should Gulf's fuel purchases for the period be accepted as reasonable
5 and prudent?

6 A. Yes. Gulf's coal purchases were either from long term contracts or the
7 competitive spot market. Coal vendors are selected by procedures
8 designed to assure a deliverable quantity of high quality coal for a
9 specific term at the lowest available delivered cost. Gulf has administered
10 the provisions of its contracts and purchase orders appropriately. Natural
11 gas was purchased from the spot market on an as-needed basis or
12 purchased and placed into storage to ensure a reliable supply. All of
13 Gulf's oil purchases were from oil vendors selected by open bids to
14 ensure the most economical price of oil.

15

16 Q. Mr. Oaks, does this conclude your testimony?

17 A. Yes.

18

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25

GULF POWER COMPANY

Before the Florida Public Service Commission

Prepared Direct Testimony and Exhibit of

Michael F. Oaks

Docket No. 990001-EI

Date of Filing: October 1, 1998

Q. Please state your name and business address.

A. My name is Michael F. Oaks and my business address is One Energy Place, Pensacola, Florida 32520-0328.

Q. What is your occupation?

A. I am the Fuel Manager at Gulf Power Company.

Q. Mr. Oaks, will you please describe your education and experience?

A. I graduated from Belhaven College in Jackson, Mississippi, in 1977 with a Bachelor of Science Degree in Chemistry. I joined Gulf Power Company in 1977 as a Chemist. Since then, I have held various positions with the Company, including Water Chemistry Specialist, Water Quality Specialist, Environmental Affairs Specialist, Environmental Audit Administrator, and Compliance Administrator. I was promoted to my present position in May 1996.

Q. What are your duties as Fuel Manager?

A. I supervise and administer the Company's fuel procurement, transportation, budgeting, contract administration, and quality control to ensure the generating plants are provided an adequate low cost fuel

1 supply with minimal operational problems.

2

3 Q. Are you the same Michael F. Oaks who has previously submitted
4 testimony in this proceeding.

5 A. Yes.

6

7 Q. Mr. Oaks, what is the purpose of your testimony in this docket?

8 A. The purpose of my testimony is to support Gulf Power Company's
9 projection of fuel expenses for the period January 1, 2000 to
10 December 31, 2000 and to be available to answer any questions that may
11 occur concerning the Company's fuel procurement procedures.

12

13 Q. Have you prepared an exhibit that contains information to which you will
14 refer in your testimony?

15 A. Yes. I have prepared an exhibit consisting of one schedule. Schedule 1
16 of my exhibit is a tabulation of projected and actual fuel cost for the past
17 ten years. The purpose of this schedule is to illustrate the accuracy of our
18 short-term projections of fuel expenses.

19

20 Counsel: We ask that Mr. Oaks' exhibit consisting of one schedule be
21 marked as Exhibit No. _____ (MFO-1).

22

23 Q. Has Gulf Power Company made any changes to its methods in this period
24 for projecting fuel cost?

25 A. No.

1 Q. Does the 2000 projection of fuel expenses reflect any major changes in
2 Gulf's fuel purchasing program during this period?

3 A. Yes. Gulf Power's Smith Plant in Bay County, Florida is subject to Phase
4 II of the Clean Air Act-Acid Rain Amendments as of January 1, 2000.
5 Consequently, our projection for 2000 shows that it is more economical to
6 burn low sulfur coal in Units 1 & 2, rather than high sulfur coal plus
7 emission allowances. Also, because of the increased market price of
8 electric capacity, it has become economical to switch fuels at Plant Daniel
9 from sub-bituminous Power River Basin coal to a higher Btu bituminous
10 coal, allowing us to recapture about 52 MW (Gulf Power's portion) of
11 capacity. These two fuel switches contribute significantly to the moderate
12 rise in projected fuel cost for the year 2000.

13

14 Q. How much spot market coal does Gulf Power project it will purchase
15 during the January 2000 through December 2000 period.

16 A. We are projecting the purchase of approximately 1,972,076 tons on the
17 spot market. This represents approximately 36.78% of our projected
18 purchase requirements.

19

20 Q. Mr. Oaks, does this conclude your testimony?

21 A. Yes.

22

23

24

25

GULF POWER COMPANY
Before the Florida Public Service Commission
Direct Testimony of
J. R. Douglass
Docket No. 990001-EI
Date of Filing October 1, 1999

Q. Please state your name, address and occupation.

A. My name is James R. Douglass, my business address is One Energy Place, Pensacola, Florida 32520-0335, and my position is Performance Test Specialist for Gulf Power Company.

Q. Please describe your educational and business background.

A. I received my Bachelor of Aviation Management Degree from Auburn University in 1989. Following graduation, I served as a commissioned officer in the U.S. Navy filling several shipboard roles including Electrical Division Officer, Engineering Officer of the Watch, and Deck Division Officer. After serving in the Navy, I worked in the Generation Planning and Development Department of Southern Company Services as a System Planning Analyst for six years and, as I previously stated, my current position is Performance Test Specialist at Gulf Power Company.

1 Q. What is the purpose of your testimony in this
2 proceeding?

3 A. The purpose of my testimony today is to present GPIF
4 targets for Gulf Power Company for the period of January 1,
5 2000 through December 31, 2000.
6

7 Q. Have you prepared exhibit(s) that contains information
8 to which you will refer in your testimony?

9 A. Yes, I have prepared one exhibit consisting of four
10 schedules.
11

12 Q. Were these exhibits prepared by you or under your
13 direction and supervision?

14 A. Yes, they were.
15

16 Counsel: We ask that Mr. Douglass's exhibit be
17 marked for identification a exhibit _____(JRD-1).
18
19

20 Q. Which units does Gulf propose to include under the GPIF
21 for the subject period?

22 A. We propose that Crist Units 6 and 7, Smith Units 1 and
23 2, and Daniel Units 1 and 2 continue to be the
24 Company's GPIF units.
25

1 Q. What are the target heat rates Gulf proposes to use in
2 the GPIF for these units for the performance period
3 January 1, 2000 through December 31, 2000?

4 A. I would like to refer you to Page 32 of Schedule 1 of
5 my exhibit _____ (JRD-1) where these targets are
6 listed.

7

8 Q. How were these proposed target heat rates determined?

9 A. They were determined according to the GPIF
10 implementation manual procedures for Gulf. For Plant
11 Daniel, a new independent variable was added to the
12 regression and the proposed revision to the
13 implementation manual has been included as Schedule 4
14 of exhibit _____ (JRD-1).

15

16 Q. Describe your proposed change to the GPIF procedures
17 for Plant Daniel.

18 A. In April, 2000 Gulf expects to switch from Powder River
19 Basin, a low-BTU sub-bituminous western coal that Plant
20 Daniel has been using most of the last three years, to
21 a higher-BTU bituminous coal. The current GPIF
22 procedures set the target heat rate using historical
23 heat rate data. For the historical period required,
24 Plant Daniel burned the low-BTU sub-bituminous coal.
25 Therefore, a target heat rate set using this data would

1 be based on the low-BTU coal. When Plant Daniel
2 switches to the high-BTU coal in 2000, the heat rate of
3 the units would reasonably expected to be lower than
4 targets set using the historical data from the low-BTU
5 coal. This would produce an unfair comparison between
6 the historical and the actual heat rates for the year
7 2000. Normally, this non-comparability would result in
8 the exclusion of Plant Daniel from the GPIF process for
9 that portion of the year when the high-BTU coal was
10 actually used. In order to prevent the exclusion of
11 these major units from the GPIF, Gulf proposes that a
12 new BTU-per-pound (BTU/LB) independent variable be
13 included in the Plant Daniel target heat rate
14 equations.

15
16 The BTU/LB variable represents the heat content of the
17 different coals used over the appropriate time period.
18 Inclusion of this new variable brings the heat content
19 of the fuels into the regression analysis when the
20 target heat rate is set. This allows the target heat-
21 rate equation to account for the heat rate
22 variabilities resulting from the different coal types.
23 The end result is a target heat rate that is reasonable
24 because it takes into account these variabilities.

1 Q. How do you propose to implement the new BTU/LB variable
2 for Plant Daniel?

3 A. The heat rate equations in this projection filing for
4 Plant Daniel have been developed using the new
5 variable. Estimates of the monthly BTU/LB for Plant
6 Daniel for the year 2000 are included on page 32 of my
7 exhibit _____ (JRD-1) and the resulting target heat
8 rate equations are shown on page 3 and pages 69 through
9 72.

10 For the results filing, the actual monthly BTU/LB
11 values for the year 2000 will replace the estimated
12 values in the target heat rate equation. This process
13 is exactly the same as it is for the other two
14 independent variables; Average kW Load (AKW) and the
15 Load Square Range Factor (LSRF). All of these estimated
16 variables are replaced with their actual values in the
17 results filing in order to develop the 'Target Heat
18 Rate at Actual Conditions' as in the example shown on
19 line 2 of page 52 of exhibit _____ (JRD-1). This is
20 then used to produce the 'Adjustments to Actual Heat
21 Rate' which adjust the 'Actual Heat Rate' as shown on
22 lines 3 and 4 respectively of page 52 of exhibit _____
23 (JRD-1).
24

1 It is anticipated that this variable will continue to
2 be used for Plant Daniel until such time as the prior
3 years of historical data and following year's projected
4 fuel types all represent reasonably consistent average
5 heat-content. Then the BTU/LB variable would be dropped
6 from the heat rate equation and the resulting targets
7 would be valid for those conditions.
8

9 Q. Are any changes needed to the GPIF implementation
10 manual resulting from the use of the new BTU/LB
11 variable at Plant Daniel?

12 A. Yes, Gulf has included a proposed revision to the GPIF
13 implementation manual procedures that details the use
14 of this new term in Gulf's target heat rates for Plant
15 Daniel. This proposed revision is found in Schedule 4
16 of my exhibit ____ (JRD-1).
17

18 Q. Describe how the targets were determined for Gulf's
19 other proposed GPIF units.

20 A. Page 2 of Schedule 1 of exhibit ____ (JRD-1) shows the
21 target average net operating heat rate equations for
22 the proposed GPIF units, and pages 4 through 29 of
23 Schedule 1 contain the weekly historical data used for
24 the statistical development of these equations.

1 Pages 30 and 31 of Schedule 1 present the calculations
2 which provide the unit target heat rates from the
3 target equations.
4

5 Q. Were the maximum and minimum attainable heat rates for
6 each proposed GPIF unit, indicated on page 32 of
7 Schedule 1 of exhibit _____ (JRD-1), calculated
8 according to the appropriate GPIF implementation manual
9 procedures?

10 A. Yes.
11

12 Q. What are the proposed target, maximum and minimum,
13 equivalent availabilities for Gulf's units?

14 A. The target equivalent availabilities and their ranges
15 are listed on page 4 of Schedule 2 of exhibit
16 _____ (JRD-1).
17

18 Q. How are these target equivalent availabilities
19 determined?

20 A. The target equivalent availabilities were determined
21 according to the standard GPIF implementation manual
22 procedures for Gulf, and are presented on page 2 of
23 Schedule 2 of exhibit (JRD-1).
24

1 Q. How were the maximum and minimum attainable equivalent
2 availabilities determined for each unit?

3 A. The maximum and minimum attainable equivalent
4 availabilities, which are presented along with their
5 respective target availabilities on page 4 of Schedule
6 2 of exhibit (JRD-1), were determined per GPIF manual
7 procedures for Gulf.

8

9 Q. Mr. Douglass, has Gulf completed the GPIF minimum
10 filing requirements data package?

11 A. Yes, we have completed the required data. Schedule 3
12 of my exhibit _____ (JRD-1) contains this information.

13

14 Q. Mr. Douglass, would you please summarize your
15 testimony?

16 A. Yes. Gulf asks that the Commission accept:

17 1. Crist Units 6 and 7, Smith Units 1 and 2 and Daniel
18 Units 1 and 2, for inclusion under the GPIF for the
19 period of January 1, 2000 through December 31, 2000.

20

21 2. Gulf asks that the Commission accept the proposed
22 changes to the GPIF implementation manual
23 procedures for Gulf in order to allow use of the
24 coal BTU/LB variable in setting heat rate targets
25 when significant differences in coal heat content

1 are expected from historical data to planned data.
2 Additionally, we ask that use of this new variable
3 be accepted as shown throughout exhibit _____
4 (JRD-1) for Plant Daniel for the year 2000.

5
6 3. The target, maximum attainable, and minimum
7 attainable average net operating heat rates, as
8 proposed by the Company and as shown on page 32 of
9 Schedule 1 and also page 5 of Schedule 3 of my
10 exhibit _____ (JRD-1).

11
12 4. The target, maximum attainable, and minimum
13 attainable equivalent availabilities, as proposed
14 by the Company and as shown on Page 4 of Schedule
15 2 and also page 5 of Schedule 3 of my exhibit
16 _____ (JRD-1).

17
18 5. The weekly average net operating heat rate least
19 squares regression equations, shown on page 2 of
20 Schedule 1 and also pages 18 through 29 of
21 Schedule 3 of my exhibit _____ (JRD-1), for use in
22 adjusting the annual actual unit heat rates to
23 target conditions.

1 Q. Mr. Douglass, does this conclude your testimony?

2 A. Yes, Sir.

3

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TAMPA ELECTRIC COMPANY
DOCKET NO. 000001-EI
SUBMITTED FOR FILING 10/01/99
(2000 PROJECTION)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

GEORGE A. KESELOWSKY

Q. Will you please state your name, business address, and employer?

A. My name is George A. Keselowsky and my business address is Post Office Box 111, Tampa, Florida 33601. I am employed by Tampa Electric Company.

Q. Please furnish us with a brief outline of your educational background and business experience.

A. I graduated in 1972 from the University of South Florida with a Bachelor of Science Degree in Mechanical Engineering. I have been employed by Tampa Electric Company in various engineering positions since that time. My current position is that of Senior Consulting Engineer - Energy Supply Engineering.

Q. What are your current responsibilities?

A. I am responsible for testing and reporting unit

1 performance, the compilation and reporting of generation
2 statistics, and the planning, scheduling and coordination
3 of unit outages.

4
5 **Q.** What is the purpose of your testimony?

6
7 **A.** My testimony presents Tampa Electric Company's methodology
8 for determining the various factors required to compute the
9 Generating Performance Incentive Factor (GPIF) as ordered
10 by this Commission.

11
12 **Q.** Have you prepared an exhibit showing the various elements
13 of the derivation of Tampa Electric Company's GPIF formula?

14
15 **A.** Yes, I have prepared, under my direction and supervision,
16 an exhibit entitled "Tampa Electric Company, Generating
17 Performance Incentive Factor" January 2000 - December 2000,
18 consisting of 35 pages filed with the Commission on
19 October 1, 1999. (Have identified as Exhibit GAK-2). The
20 data prepared within this exhibit is consistent with the
21 GPIF Implementation Manual previously approved by this
22 Commission.

1 Q. Which generating units on Tampa Electric Company's system
2 are included in the determination of your GPIF?

3

4 A. Six of our coal-fired units are included. These are:
5 Gannon Station Units 5 and 6; and Big Bend Station Units 1,
6 2, 3, and 4.

7

8 Q. Will you describe how Tampa Electric Company evolved the
9 various factors associated with the GPIF as ordered by this
10 Commission?

11

12 A. Yes. First, the two factors to be used, as set forth by
13 the Commission Staff, are unit availability and station
14 heat rate.

15

16 Q. Please continue.

17

18 A. A target was established for equivalent availability for
19 each unit considered for this period. Heat rate targets
20 were also established for each unit. A range of potential
21 improvement and degradation was determined for each of
22 these parameters.

23

24

25

1 Q. Would you describe how the target values for unit
2 availability were determined?

3
4 A. Yes I will. The Planned Outage Factor (POF) and the
5 Equivalent Unplanned Outage Factor (EUOF) were subtracted
6 from 100% to determine the target equivalent availability.
7 The factors for each of the 6 units included within the
8 GPIF are shown on page 5 of my exhibit. For example, the
9 projected EUOF for Big Bend Unit Two is 14.5%. The Planned
10 Outage Factor for this same unit during this period is
11 4.9%. Therefore, the target equivalent availability for
12 this unit equals:

13
14
$$100\% - [(14.5\% + 4.9\%)] = 80.6\%$$

15
16 This is shown on page 4, column 3 of my exhibit.

17
18 Q. How was the potential for unit availability improvement
19 determined?

20
21 A. Maximum equivalent availability is arrived at using the
22 following formula.

23
24
25

Equivalent Availability Maximum

$$EAF_{MAX} = 100\% - [0.8 (EUOF_T) + 0.95 (POF_T)]$$

The factors included in the above equations are the same factors that determine target equivalent availability. To attain the maximum incentive points, a 20% reduction in Forced Outage and Maintenance Outage Factors (EUOF), plus a 5% reduction in the Planned Outage Factor (POF) will be necessary. Continuing with our example on Big Bend Unit Two:

$$EAF_{MAX} = 100\% - [0.8 (14.5\%) + 0.95 (4.9\%)] = 83.8\%$$

This is shown on page 4, column 4 of my exhibit.

Q. How was the potential for unit availability degradation determined?

A. The potential for unit availability degradation is significantly greater than is the potential for unit availability improvement. This concept was discussed extensively and approved in earlier hearings before this Commission. Tampa Electric Company's approach to incorporating this skewed effect into the unit availability tables is to use a potential degradation range equal to

twice the potential improvement. Consequently, minimum equivalent availability is arrived at via the following formula:

Equivalent Availability Minimum

$$EAF_{MIN} = 100\% - [1.4 (EUOF_T) + 1.10 (POF_T)]$$

Again, continuing with our example of Big Bend Unit Two,

$$EAF_{MIN} = 100\% - [1.4 (14.5\%) + 1.1 (4.9\%)] = 74.4\%$$

Equivalent availability MAX and MIN for the other five units is computed in a similar manner.

Q. How do you arrive at the Planned Outage, Maintenance Outage and Forced Outage Factors?

A. Our planned outages for this period are shown on page 19 of my exhibit. A Critical Path Method (C.P.M.) for each major planned outage which affects GPIF is included in my exhibit. Planned Outage Factors are calculated for each unit. For example, Big Bend Unit 3 is scheduled for a planned outage April 4 to April 10, 2000. There are 504 planned outage hours scheduled for the 2000 period, and a total of 8784 hours during this 12 month period.

1 Consequently, the Planned Outage Factor for Unit 3 at Big
2 Bend is $504/8784 \times 100\%$ or 5.7%. This factor is shown on
3 pages 5 and 17 of my exhibit. Big Bend Unit 1 also has a
4 planned outage factor of 5.7%. Big Bend Unit 2 has a
5 planned outage factor of 4.9%. Big Bend 4 has a planned
6 outage factor of 1.9%. Gannon Units 5 and 6 each have
7 planned outage factors of 5.7%.

8
9 **Q.** How did you arrive at the Forced Outage and Maintenance
10 Outage Factors on each unit?

11
12 **A.** Graphs of both of these factors (adjusted for planned
13 outages) vs. time are prepared. Both monthly data and 12
14 month moving average data are recorded. For each unit the
15 most current, June 1999, 12 month ending value was used as
16 a basis for the projection. This value was adjusted up or
17 down by analyzing trends and causes for recent forced and
18 maintenance outages. All projected factors are based upon
19 historical unit performance, engineering judgment, time
20 since last planned outage, and equipment performance
21 resulting in a forced or maintenance outage. These target
22 factors are additive and result in a EUOF of 18.0% for Big
23 Bend Unit Three. The Equivalent Unplanned Outage Factor
24 (EUOF) for Big Bend Unit Three is verified by the data
25 shown on page 17, lines 3, 5, 10 and 11 of my exhibit and

1 calculated using the formula:

2
3
$$\text{EUOF} = \frac{(\text{FOH} + \text{EFOH} + \text{MOH} + \text{EMOH})}{\text{Period Hours}} \times 100$$

4
5 or

6
$$\text{EUOF} = \frac{(1092 + 488)}{8784} \times 100 = 18.0\%$$

7
8 Relative to Big Bend Unit Three, the EUOF of 18.0% forms
9 the basis of our Equivalent Availability target development
10 as shown on sheets 4 and 5 of my exhibit.

11
12 Q. Please continue with your review of the remaining units.

13
14 Big Bend Unit One

15 A. The projected EUOF for this unit is 16.1% during this
16 period. This unit will have a planned outage this period
17 and the Planned Outage Factor is 5.7%. This results in a
18 target equivalent availability of 78.1% for the period.

19
20 Big Bend Unit Two

21 The projected EUOF for this unit is 14.5%. This unit will
22 have a planned outage during this period and the Planned
23 Outage Factor is 4.9%. Therefore, the target equivalent
24 availability for this unit is 80.6%.

Big Bend Unit Three

The projected EUOF for this unit is 18.0%. This unit will have a planned outage this period and the Planned Outage Factor is 5.7%. Therefore, the target equivalent availability for this unit is 76.3%.

Big Bend Unit Four

The projected EUOF for this unit is 13.7%. This unit will have a planned outage during this period and the Planned Outage Factor is 1.9%. This results in a target equivalent availability of 84.4% for the period.

Gannon Unit Five

The projected EUOF for this unit is 19.0%. This unit will have a planned outage during this period and the Planned Outage Factor is 5.7%. Therefore, the target equivalent availability for this unit is 75.3%.

Gannon Unit Six

The projected EUOF for this unit is 22.1%. This unit will have a planned outage during this period and the Planned Outage Factor is 5.7%. Therefore, the target equivalent availability for this unit is 72.2%.

1 Q. Would you summarize your testimony regarding Equivalent
2 Availability Factor (EAF)?

3

4 A. Yes I will. Please note on page 5 that the GPIF system
5 weighted Equivalent Availability Factor (EAF) equals 77.9%.
6 This target compares very favorably to previous GPIF
7 periods and is in fact, better than two of the three past
8 periods.

9

10 Q. As you graph and monitor Forced and Maintenance Outage
11 Factors, why are they adjusted for planned outage hours?

12

13 A. This adjustment makes these factors more accurate and
14 comparable. Obviously, a unit in a planned outage stage or
15 reserve shutdown stage will not incur a forced or
16 maintenance outage. Since our units are usually base
17 loaded, reserve shutdown is generally not a factor. To
18 demonstrate the effects of a planned outage, note the EUOR
19 and EUOF for Gannon Unit Six on page 14. During the months
20 of January through October, EUOF and EUOR are equal. This
21 is due to the fact that no planned outages are scheduled
22 during these months. During the months of November and
23 December, EUOR exceeds EUOF. The reason for this
24 difference is the scheduling of a planned outage. The
25 adjusted factors apply to the period hours after planned

1 outage hours have been extracted.

2

3 Q. Does this mean that both rate and factor data are used in
4 calculated data?

5

6 A. Yes it does. Rates provide a proper and accurate method of
7 arriving at the unit parameters. These are then converted
8 to factors since they are directly additive. That is, the
9 Forced Outage Factor + Maintenance Outage Factor + Planned
10 Outage Factor + Equivalent Availability Factor = 100%.
11 Since factors are additive, they are easier to work with
12 and to understand.

13

14 Q. Has Tampa Electric Company prepared the necessary heat rate
15 data required for the determination of the Generating
16 Performance Incentive Factor?

17

18 A. Yes. Target heat rates as well as ranges of potential
19 operation have been developed as required.

20

21 Q. How were these targets determined?

22

23 A. Net heat rate data for the three most recent summer
24 periods, along with the PROMOD IV program, formed the basis
25 of our target development. Projections of unit performance

1 were made with the aid of PROMOD IV. The historical data
2 and the target values are analyzed to assure applicability
3 to current conditions of operation. This provides
4 assurance that any periods of abnormal operations, or
5 equipment modifications having material effect on heat rate
6 can be taken into consideration.

7

8 Q. Have you developed the heat rate targets in accordance with
9 GPIF guidelines?

10

11 A. Yes.

12

13 Q. How were the ranges of heat rate improvement and heat rate
14 degradation determined?

15

16 A. The ranges were determined through analysis of historical
17 net heat rate and net output factor data. This is the same
18 data from which the net heat rate vs. net output factor
19 curves have been developed for each unit. This information
20 is shown on pages 27 through 32 of my exhibit.

21

22 Q. Would you elaborate on the analysis used in the
23 determination of the ranges?

24

25 A. The net heat rate vs. net output factor curves are the results

1 of a first order curve fit to historical data. The standard
2 error of the estimate of this data was determined, and a factor
3 was applied to produce a band of potential improvement and
4 degradation. Both the curve fit and the standard error of the
5 estimate were performed by computer program for each unit. These
6 curves are also used in post period adjustments to actual heat
7 rates to account for unanticipated changes in unit dispatch.

8
9 **Q.** Can you summarize your heat rate projection for the 2000
10 period?

11
12 **A.** Yes. The heat rate target for Big Bend Unit 1 is 10,127
13 Btu/Net kwh. The range about this value, to allow for
14 potential improvement or degradation, is ± 387 Btu/Net kwh.
15 The heat rate target for Big Bend Unit 2 is 10,061 Btu/Net
16 kwh with a range of ± 468 Btu/Net kwh. The heat rate target
17 for Big Bend Unit 3 is 10,197 Btu/Net kwh, with a range of
18 ± 381 Btu/Net kwh. The heat rate target for Big Bend Unit
19 4 is 9,976 Btu/Net kwh with a range of ± 316 Btu/Net kwh.
20 The heat rate target for Gannon Unit 5 is 10,562 Btu/Net
21 kwh with a range of ± 404 Btu/Net kwh. The heat rate target
22 for Gannon Unit 6 is 10,507 Btu/Net kwh with a range of
23 ± 366 Btu/Net kwh. A zone of tolerance of ± 75 Btu/Net kwh
24 is included within the range for each target. This is
25 shown on page 4, and pages 7 through 12 of my exhibit.

1 Q. Do you feel that the heat rate targets and ranges in your
2 projection meet the criteria of the GPIF and the philosophy
3 of this Commission?
4

5 A. Yes I do.
6

7 Q. After determining the target values and ranges for average
8 net operating heat rate and equivalent availability, what
9 is the next step in the GPIF?
10

11 A. The next step is to calculate the savings and weighting
12 factor to be used for both average net operating heat rate
13 and equivalent availability. This is shown on pages 7
14 through 12. Our PROMOD IV cost simulation model was used
15 to calculate the total system fuel cost if all units
16 operated at target heat rate and target availability for
17 the period. This total system fuel cost of \$353,445,100 is
18 shown on page 6 column 2.
19

20 The PROMOD IV output was then used to calculate total
21 system fuel cost with each unit individually operating at
22 maximum improvement in equivalent availability and each
23 station operating at maximum improvement in average net
24 operating heat rate. The respective savings are shown on
25 page 6 column 4. After all the individual savings are

1 calculated, column 4 is totaled: \$15,613,600 reflects the
2 savings if all units operated at maximum improvement. A
3 weighting factor for each parameter is then calculated by
4 dividing individual savings by the total. For Big Bend
5 Unit Two, the weighting factor for equivalent availability
6 is 6.47% as shown in the right hand column on page 6.
7 Pages 7 thru 12 show the point table, the Fuel
8 Savings/(Loss), and the equivalent availability or heat
9 rate value. The individual weighting factor is also shown.
10 For example, on Big Bend Unit Two, page 10, if the unit
11 operates at 83.8% equivalent availability, fuel savings
12 would equal \$1,010,300 and 10 equivalent availability
13 points would be awarded.

14
15 The Generating Performance Incentive Factor Reward/Penalty
16 Table on page 2 is a summary of the tables on pages 7
17 through 12. The left hand column of this document shows
18 the incentive points for Tampa Electric Company. The
19 center column shows the total fuel savings and is the same
20 amount as shown on page 6, column 4, \$15,613,600. The
21 right hand column of page 2 is the estimated reward or
22 penalty based upon performance.

1 Q. How were the maximum allowed incentive dollars determined?

2

3 A. Referring to my exhibit on page 3, line 14, the estimated
4 average common equity for the period January 2000 -
5 December 2000 is shown to be \$1,235,512,385. This produces
6 the maximum allowed jurisdictional incentive dollars of
7 \$4,943,131 shown on line 21.

8

9 Q. Is there any other constraint set forth by this Commission
10 regarding the magnitude of incentive dollars?

11

12 A. Yes. Incentive dollars are not to exceed fifty percent of
13 fuel savings. Page 2 of my exhibit demonstrates that this
14 constraint is met.

15

16 Q. Do you wish to summarize your testimony on the GPIF?

17

18 A. Yes. To the best of my knowledge and understanding, Tampa
19 Electric Company has fully complied with the Commission's
20 directions, philosophy, and methodology in our
21 determination of Generating Performance Incentive Factor.
22 The GPIF for Tampa Electric Company is expressed by the
23 following formula for calculating Generating Performance
24 Incentive Points (GPIP):

25

$$\begin{aligned}
& \text{GPIP} = (0.0279 \text{ EAP}_{\text{GN5}} + 0.0849 \text{ EAP}_{\text{GN6}} \\
& \quad + 0.0845 \text{ EAP}_{\text{BB1}} + 0.0647 \text{ EAP}_{\text{BB2}} \\
& \quad + 0.0871 \text{ EAP}_{\text{BB3}} + 0.0771 \text{ EAP}_{\text{BB4}} \\
& \quad + 0.0537 \text{ HRP}_{\text{GN5}} + 0.0747 \text{ HRP}_{\text{GN6}} \\
& \quad + 0.1153 \text{ HRP}_{\text{BB1}} + 0.1154 \text{ HRP}_{\text{BB2}} \\
& \quad + 0.1080 \text{ HRP}_{\text{BB3}} + 0.1067 \text{ HRP}_{\text{BB4}}
\end{aligned}$$

Where:

GPIP = Generating performance incentive points.

EAP = Equivalent availability points awarded/deducted for Units 5 and 6 at Gannon and Units 1, 2, 3 and 4 at Big Bend.

HRP = Average net heat rate points awarded/deducted for Units 5 and 6 at Gannon and Units 1, 2, 3 and 4 at Big Bend.

Q. Have you prepared a document summarizing the GPIF targets for the January 2000 - December 2000 period?

A. Yes. The availability and heat rate targets for each unit are listed on attachment "A" to this testimony entitled "Tampa Electric Company GPIF Targets, January 1, 2000 - December 31, 2000".

1 Q. Do you wish to sponsor an exhibit consisting of estimated
2 unit performance data supporting the fuel adjustment?

3

4 A. Yes I do. (Have identified as Exhibit GAK-3).

5

6 Q. Briefly describe this exhibit.

7

8 A. This exhibit consists of 23 pages. This data is Tampa Electric
9 Company's estimate of the Unit Performance Data and Unit Outage
10 Data for the January 2000 - December 2000 period.

11

12 Q. Does this conclude your testimony?

13

14 A. Yes.

15

16

17

18

19

20

21

22

23

24

25

TAMPA ELECTRIC COMPANY

DOCKET NO. 990001-EI

FILED: 10/1/99

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

MARK J. HORNICK

1 Q. Please state your name, address, occupation and employer.

2
3
4 A. My name is Mark Hornick. My mailing address is P.O. Box
5 111, Tampa, Florida 33601, and my business address is
6 6944 U.S. Highway 41 North, Apollo Beach, Florida 33572.
7 I am employed by Tampa Electric Company in the position
8 of Director, Fuels in the Environmental and Fuels
9 Department.
10
11
12

13
14 Q. Please provide a brief outline of your educational
15 background and business experience.
16

17 A. I received a Bachelor of Science Degree in Mechanical
18 Engineering in 1981 from the University of South Florida.
19 I began my career with Tampa Electric Company in 1981 as
20 an Engineer Associate in the Production Department. I
21 have held a number of engineering positions at Tampa
22 Electric's power generating stations. In August 1990, I
23 was promoted to Manager - Operations at Hookers Point
24 Station. In September of 1991, I was transferred to Big
25

1 Bend Station as Manager - Support. From September 1991
2 to July 1998, I had various managerial responsibilities
3 at Big Bend involving operations and maintenance of the
4 station. In July 1998, I was promoted to my current
5 position as Director - Fuels. I am responsible for
6 managing Tampa Electric's fuel-related activities
7 including planning, procurement, inventory, usage and
8 combustion by-product management.
9

10 Q. Please state the purpose of your testimony.
11

12 A. The purpose of my testimony is to report to the
13 Commission the actual 1998 costs of Tampa Electric's
14 affiliated coal transportation and coal transactions
15 compared to the benchmark prices calculated in accordance
16 with Order No. 20298 and Order No. PSC-93-0443-FOF-EI
17 ("Order No. 93-0443), respectively. I conclude that the
18 1998 prices paid by Tampa Electric to its affiliates TECO
19 Transport and Gatliff Coal are reasonable and prudent, as
20 adjusted.
21

22 Q. Have you prepared an exhibit that you sponsor in this
23 proceeding?
24

25 A. Yes. Exhibit No. ____ (MJH-1) titled "Exhibit of Mark

1 Hornick," consisting of two documents, was prepared under
2 my direction and supervision.

3
4 Q. Were Tampa Electric's actual affiliated coal
5 transportation prices for 1998 at or below the
6 transportation benchmark?

7
8 A. Yes, they were. This is reflected in Document No. 1 of
9 my exhibit.

10
11 Q. Were Tampa Electric's actual affiliated coal prices for
12 1998 at or below the benchmark?

13
14 A. No. As reflected in Document No. 2 of my exhibit, the
15 total cost of coal purchased from Gatliff Coal was in
16 excess of the benchmark for 1998. This amount has been
17 adjusted in a manner similar to that stipulated to in
18 Order No. PSC-98-1715-FOF-EI ("the Order") from Docket
19 No. 980001-EI and is addressed in the testimony of Tampa
20 Electric witness Karen O. Zwolak.

21
22 Q. Once the amount for coal prices is adjusted so that the
23 costs sought for recovery are at or below the benchmark,
24 is it appropriate for Tampa Electric to recover costs
25 paid to its affiliates for coal transportation and coal?

1 **A.** Yes. I demonstrated that the average 1998 prices for
2 TECO Transport coal waterborne transportation services
3 were at or below the appropriate benchmark calculations
4 as directed by Order No. 20298 of this Commission. In
5 addition, once adjusted in accordance with the Order, the
6 average prices paid for Gatliff Coal's coal were at or
7 below the appropriate benchmark calculations as ordered
8 in Order No. 93-0443 and Order No. 98-1715. Therefore,
9 it is appropriate for Tampa Electric to recover the
10 expenses for 1998 coal transportation and coal, as
11 adjusted.

12
13 **Q.** Does this conclude your testimony?

14
15 **A.** Yes, it does.
16
17
18
19
20
21
22
23
24
25

1 CHAIRMAN DEASON: We need to identify the
2 exhibits attached for those witnesses?

3 MR. KEATING: That's correct. The exhibits are
4 listed on Pages 42 through 48 of the prehearing
5 order, beginning with the exhibits for Mr. Silva's
6 testimony. That would be RS-1, RS-2, RS-3, and
7 RS-4. We'd ask that those be marked as Exhibits 1
8 through 4.

9 CHAIRMAN DEASON: They will be so marked.

10 MR. KEATING: Turning to Page 43 of the
11 Prehearing Order, the exhibits of John Scardino,
12 JS-1 and JS-2, should be marked as Exhibits 5 and
13 6.

14 CHAIRMAN DEASON: They will be so identified.

15 MR. KEATING: Further down that page, the
16 exhibits of Witness McClintock, RJM-1 and RJM-2, can
17 be identified as Exhibits 7 and 8. Sorry, and RJM-3
18 on the next page can be identified as Exhibit 9.

19 CHAIRMAN DEASON: They will they will be so
20 identified.

21 MR. KEATING: Exhibits of George Bachman,
22 GMB-2, should be identified as Exhibit 10.

23 CHAIRMAN DEASON: It will be so identified.

24 MR. KEATING: Okay. The exhibits of Witness
25 Oaks, MFO-1 and MFO-2, can be identified as Exhibits

1 11 and 12.

2 CHAIRMAN DEASON: They will be so identified.

3 MR. KEATING: On Page 45 of the Prehearing
4 Order, the exhibits of Witness Douglass, GDF-1 and
5 JRD-1, can be identified as Exhibits 13 and 14.

6 CHAIRMAN DEASON: They will be so identified.

7 MR. KEATING: And on Page 46 of the Prehearing
8 Order, the exhibits of Witness Keselowsky, GAK-2 and
9 GAK-3, can be identified as 15 and 16.

10 CHAIRMAN DEASON: They will be so identified.

11 MR. KEATING: And, finally, on Page 47 of the
12 Prehearing Order, the exhibit of Witness Hornick,
13 MJH-1, can be identified as Exhibit 17.

14 CHAIRMAN DEASON: Very well. That's all the
15 exhibits we need to identify at this point?

16 MR. KEATING: That's correct.

17 CHAIRMAN DEASON: Okay. So you're moving then
18 the admission of Exhibits 1 through 17.

19 MR. KEATING: Yes.

20 CHAIRMAN DEASON: Without objection?

21 (NO RESPONSE)

22 CHAIRMAN DEASON: Hearing none, then show
23 Exhibits 1 through 17 are admitted.

24 Okay.

25 MR. KEATING: Commissioner Deason, I believe

1 that there may be one other just minor matter to
2 cover. TECO has requested that the order of
3 witnesses be changed slightly for their witnesses.
4 That witness W. L. Brown -- this is on Page 6 of the
5 Prehearing Order -- be moved to follow Charles R.
6 Black.

7 CHAIRMAN DEASON: Very well. All witnesses
8 please stand and raise your right hand.

9 (WHEREUPON, THE WITNESSES WERE DULY SWORN BY
10 CHAIRMAN DEASON)

11 CHAIRMAN DEASON: Mr. Childs.

12 MR. CHILDS: Call Mr. Wade. While he is coming
13 to the stand, Commissioners, he is sponsoring a
14 document that was inadvertently omitted which I'll
15 be referring to.

16
17
18 * * * *

19
20 Whereupon,

21 R. L. WADE

22 was called as a witness by FPL and, after being first
23 duly sworn, was examined and testified as follows:

24 DIRECT EXAMINATION

25 BY MR. CHILDS:

1 Q Would you state your name and address, please?

2 A My name is Robert L. Wade. My address is 700
3 Universe Boulevard, Juno Beach, Florida, 33408.

4 Q By whom are you employed and in what capacity?

5 A I'm employed by Florida Power & Light as the
6 director of business services for the nuclear division.

7 Q Do you have before you a document entitled
8 Florida Power & Light Company, Testimony of R. L. Wade,
9 Docket Number 990001-EI, October 1, 1999?

10 A I do.

11 Q Was that prepared by you as your testimony for
12 this proceeding?

13 A It was.

14 Q Do you have any changes or corrections to make
15 to the testimony?

16 A None.

17 Q Do you adopt it as your testimony?

18 A I do.

19 MR. CHILDS: I ask that the prepared testimony
20 of Mr. Wade be inserted into the record as though
21 read.

22 CHAIRMAN DEASON: Without objection, it shall
23 be so inserted.

24

25

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF R. L. WADE

DOCKET NO. 990001-EI

October 1, 1999

1 Q. Please state your name and address.

2 A. My name is Robert L. Wade. My business address is
3 700 Universe Boulevard, Juno Beach, Florida 33408.

4

5 Q. By whom are you employed and what is your position?

6 A. I am employed by Florida Power & Light Company
7 (FPL) as Director, Business Services in the Nuclear
8 Business Unit.

9

10 Q. Have you previously testified in this docket?

11 A. Yes, I have.

12

13 Q. What is the purpose of your testimony?

14 A. The purpose of my testimony is to present and
15 explain FPL's projections of nuclear fuel costs for
16 the thermal energy (MMBTU) to be produced by our
17 nuclear units and costs of disposal of spent

1 nuclear fuel. Both of these costs were input values
2 to POWERSYM for the calculation of the proposed
3 fuel cost recovery factor for the period January
4 2000 through December 2000.

5

6 Q. What is the basis for FPL's projections of nuclear
7 fuel costs?

8 A. FPL's nuclear fuel cost projections are developed
9 using energy production at our nuclear units and
10 their operating schedules, for the period January
11 2000 through December 2000.

12

13 Q. Please provide FPL's projection for nuclear fuel
14 unit costs and energy for the period January 2000
15 through December 2000.

16 A. FPL projects the nuclear units will produce
17 235,038,613 MMBTU of energy at a cost of \$0.3061
18 per MMBTU, excluding spent fuel disposal costs for
19 the period January 2000 through December 2000.
20 Projections by nuclear unit and by month are
21 provided on Schedule E-4, starting on page 16 of
22 Appendix II.

1 Q. Please provide FPL's projections for spent nuclear
2 fuel disposal costs for the period January 2000
3 through December 2000 and explain the basis for
4 FPL's projections.

5 A. FPL's projections for nuclear spent fuel disposal
6 costs of approximately \$21.5 million are provided
7 on Schedule E-2, starting on page 10 of Appendix
8 II. These projections are based on FPL's contract
9 with the U.S. Department of Energy (DOE), which
10 sets the spent fuel disposal fee at 0.9320 mill per
11 net Kwh generated minus transmission and
12 distribution line losses.

13

14 Q. Please provide FPL's projection for Decontamination
15 and Decommissioning (D&D) costs to be paid in the
16 period January 2000 through December 2000 explain
17 the basis for FPL's projection.

18 A. FPL's projection of \$5.93M for D&D costs is based
19 on the amount to be paid during the Period January
20 2000 through December 2000 and is included on
21 Schedule E-2 starting on page 10 of Appendix II.

22

1 Q. Are there currently any unresolved disputes under
2 FPL's nuclear fuel contracts?

3 A. Yes. As reported in prior testimonies, there are
4 two unresolved disputes.

5
6 1. Spent Fuel Disposal Dispute. The first
7 dispute is under FPL's contract with the Department
8 of Energy (DOE) for final disposal of spent nuclear
9 fuel. FPL, along with a number of electric
10 utilities, states, and state regulatory agencies
11 filed suit against DOE over DOE's denial of its
12 obligation to accept spent nuclear fuel beginning
13 in 1998. On July 23, 1996, the U.S. Court of
14 Appeals for the District of Columbia Circuit (D.C.
15 Circuit) held that DOE is required by the Nuclear
16 Waste Policy Act (NWPA) to take title and dispose
17 of spent nuclear fuel from nuclear power plants
18 beginning on January 31, 1998. DOE declined to seek
19 further review of the decision, which was remanded
20 to DOE for further proceedings. On December 17,
21 1996, DOE advised the electric utilities that it
22 would not begin to dispose of spent nuclear fuel by
23 the unconditional deadline.

1 In response to DOE's letter, FPL, other electric
2 utilities, states, and state utility commissions
3 petitioned the D.C. Circuit for an order
4 authorizing the suspension of payments into the
5 Nuclear Waste Fund (NWF) without prejudice to the
6 utilities' contract rights until DOE performs on
7 its unconditional obligation to take title to and
8 dispose of spent nuclear fuel. The petitioners also
9 requested an order requiring DOE to begin disposing
10 of spent nuclear fuel by January 31, 1998 or in the
11 alternative, directing DOE to develop a program
12 that would enable the agency to begin disposing of
13 spent nuclear fuel by January 31, 1998. (Northern
14 States Power Co. v. DOE).

15

16 While the petition was pending, and before oral
17 argument, DOE issued a letter on June 3, 1997 to
18 all electric utilities with nuclear plants that
19 have contracts with DOE for spent fuel disposal
20 asserting its preliminary position that the delay
21 in disposal of spent nuclear fuel was
22 "unavoidable." Based on this conclusion, DOE

1 asserted that it was not responsible for delays in
2 disposal of spent nuclear fuel.

3
4 On November 14, 1997, a panel of the D.C. Circuit
5 granted the mandamus petition in part, finding that
6 DOE did not abide by the Court's earlier ruling
7 that the NWPA imposes an unconditional obligation
8 on DOE to begin disposal of spent fuel by January
9 31, 1998. The writ of mandamus precludes DOE from
10 excusing its own delay on the grounds that it has
11 not yet prepared a permanent repository or interim
12 storage facility. The Court did not grant the other
13 requests for relief. The Court stated in its
14 decision that the utility contract holders should
15 pursue remedies against DOE in the appropriate
16 forum.

17
18 On May 5, 1998, the D.C. Circuit denied petitions
19 for rehearing filed by DOE and Yankee Atomic
20 Electric Company. The Court also denied requests
21 by all other petitioners in the Northern States
22 Power case for an order requiring DOE to begin
23 spent fuel disposal. On November 30, 1998, the

1 U.S. Supreme Court denied petitions for a writ of
2 certiorari filed by the states and state utility
3 commissions, and by DOE.

4
5 On June 8, 1998, FPL filed a lawsuit against DOE in
6 the U.S. Court of Federal Claims, claiming in
7 excess of \$300,000,000 in damages arising out of
8 DOE's failure to begin spent fuel disposal on
9 January 31, 1998. On July 31, 1998, DOE filed a
10 motion to dismiss a companion lawsuit brought by
11 Northern States Power Company (NSP) on grounds that
12 NSP failed to exhaust its administrative remedies
13 prior to filing the lawsuit and should have first
14 filed a claim with DOE's Contracting Officer.
15 FPL's lawsuit has been stayed pending the outcome
16 of the NSP case. NSP filed its opposition to DOE's
17 motion on August 31, 1998, in which NSP argued that
18 cases involving outright breaches of government
19 contracts by the government can be brought directly
20 in the Court of Federal Claims. On April 6, 1999,
21 the Court of Federal Claims granted DOE's motion to
22 dismiss. NSP appealed the court of Claims
23 decision on May 20, 1999 to the U.S. Court of

1 Appeals for the Federal Circuit. NSP's appeal,
2 which may bear on FPL's lawsuit, will be argued
3 before the same Federal Circuit panel that will
4 hear argument on a decision by a different judge in
5 the Court of Federal Claims. That judge ruled that
6 Yankee Atomic Electric Company, Connecticut Yankee
7 Atomic Electric Company, and Maine Yankee Atomic
8 Electric Company could proceed with their spent
9 fuel damages lawsuits against DOE in court without
10 proceeding first before DOE's Contracting Officer.

11

12 It is likely that the Federal Circuit will hear
13 argument on NSP's appeal and issue a decision in
14 2000. It is possible that the decision of the
15 Federal Circuit on the jurisdictional issue could
16 be reviewed by the full panel of the Federal
17 Circuit, and then by the U.S. Supreme Court.

18

19 2(a). Uranium Enrichment Pricing Disputes - FY 1993
20 Overcharges. FPL is currently seeking to resolve a
21 pricing dispute concerning uranium enrichment
22 services purchased from the United States (U.S.)
23 Government, prior to July 1, 1993. FPL's contract

1 for enrichment services with the U.S. Government
2 calls for pricing to be calculated in accordance
3 with "Established DOE Pricing Policy". Such policy
4 had always been one of cost recovery, which
5 included costs related to the Decontamination and
6 Decommissioning (D&D) of the DOE's enrichment
7 facilities. However, the Energy Policy Act of 1992
8 (The Act) requires utilities to make separate
9 payments to the U.S. Treasury for D&D, starting in
10 Fiscal Year 1993. FPL has been making such
11 payments. Therefore, D&D should not have been
12 included in the price charged by DOE for deliveries
13 during Fiscal Year 1993, and the price should have
14 been reduced accordingly. FPL filed a claim with
15 the DOE Contracting Officer on July 14, 1995, for a
16 refund for such deliveries. On October 13, 1995,
17 the DOE Contracting Officer officially rejected
18 FPL's claim. On October 11, 1996, FPL, along with
19 five other U.S. utilities and one foreign entity,
20 appealed DOE's rejection of the Fiscal Year 1993
21 overcharge claim with the U.S. Court of Federal
22 Claims (FPL v. DOE).

23

1 On August 12, 1998, the Court of Federal Claims
2 dismissed FPL's complaint. On August 25, 1999, the
3 Federal Circuit reversed the decision of the Court
4 of Federal Claims, and remanded the issue for
5 trial.

6
7 2(b).Uranium Enrichment Pricing Disputes -
8 Challenge to D&D Assessment. In a related case,
9 Yankee Atomic Electric Company had challenged the
10 authority of the United States to impose the D&D
11 fees. On May 6, 1997, a panel of the U.S. Court of
12 Appeals for the Federal Circuit held that the D&D
13 special assessment was lawful under the Energy
14 Policy Act. United States v. Yankee Atomic Electric
15 Co. A lower court had ruled that the D&D special
16 assessment was unlawful. On August 15, 1997, the
17 full panel of the Federal Circuit denied Yankee's
18 request for rehearing. On June 26, 1998, the U.S.
19 Supreme Court denied Yankee's petition for a writ
20 of certiorari.

21 FPL believes that the Yankee decision is not
22 necessarily dispositive of its claims against the
23 Government challenging the D&D assessment. As a

1 protective measure, on July 27, 1998, FPL filed a
2 claim before DOE's Contracting Officer and on July
3 29, 1998, a complaint with the U.S. Court of
4 Federal Claims challenging the D&D assessment on
5 grounds that the D&D assessment is an impermissible
6 retroactive adjustment to previous fixed price
7 uranium enrichment service contracts.

8
9 In addition, FPL has joined a complaint filed by 21
10 U.S. utilities in the U.S. District Court for the
11 Southern District of New York challenging the D&D
12 assessment as a violation of the due process clause
13 of the Fifth Amendment to the U.S. Constitution.
14 (Consolidated Edison Co. v. United States). The
15 Southern District of New York trial judge granted
16 the Government's motion for a stay of discovery in
17 the Consolidated Edison case pending the
18 Government's motion for interlocutory review before
19 the Federal Circuit. FPL's lawsuit in the Court of
20 Federal Claims has been stayed pending resolution
21 of the proceedings in the Southern District of New
22 York.

23

1 Q. Are there any other fuel related items which FPL
2 proposes to include in the Fuel Recovery Factor?

3

4 A. Yes. Ms. Korel M. Dubin has filed testimony in
5 which she addresses FPL's request that it be
6 allowed to amortize the "last core" of nuclear
7 fuel. My testimony describes the circumstances
8 that underlie FPL's request.

9

10 Q. Please explain nuclear fuel costs and FPL's method
11 of amortizing nuclear fuel.

12

13 A. The nuclear reactor core contains the uranium fuel
14 supply that is fissioned to produce heat. The
15 three major components of the reactor core are:
16 uranium fuel pellets, the fuel rods and the fuel
17 assemblies. The uranium fuel pellets are sealed
18 inside the fuel rods (over 300 pellets per fuel
19 rod). The fuel rods are bundled into lots to form
20 fuel assemblies. At Turkey Point, each reactor
21 contains 157 fuel assemblies comprised of over
22 32,000 fuel rods. At St. Lucie, each reactor
23 contains 217 fuel assemblies comprised of
24 approximately 38,000 fuel rods.

25

1 FPL's nuclear units are refueled approximately
2 every 18 months. At the end of each cycle
3 approximately one third of the fuel assemblies in
4 the reactor core are removed and transferred to
5 the spent fuel pool. The remaining two thirds of
6 the fuel assemblies are moved to new locations
7 within the reactor core. The oldest assemblies
8 ("twice-burned") are loaded around the perimeter
9 of the reactor core (less energy produced). The
10 assemblies which were fresh fuel in the prior
11 cycle ("once burned") are loaded with the new fuel
12 assemblies in the middle area of the reactor core.

13
14 FPL currently amortizes a nuclear fuel assembly
15 based upon its estimated energy produced while in
16 the reactor core. A typical fuel assembly is
17 amortized over a three cycle period (approximately
18 54 months). At the end of each cycle there is a
19 fuel cost balance for the once and twice burned
20 fuel assemblies which remain in the reactor core.

21
22 This balance (also known as the last core) would
23 have to be amortized during the final cycle of
24 unit operation if no alternative recovery methods
25 are introduced in the interim. Ultimately, the

1 last core must be expensed to ensure the net
2 investment in nuclear fuel is zero upon end of the
3 life of the unit. The last core fuel has no
4 salvage value due to the lack of a nuclear fuel
5 reprocessing industry and the delays in the
6 federal program to provide a repository for high
7 level waste and spent nuclear fuel.

8
9 The final cycle of operation is currently
10 scheduled for: Turkey Point Unit 3 November 2010
11 to July 2012, Turkey Point Unit 4 November 2012 to
12 April 2013, St. Lucie Unit 1 December 2014 to
13 March 2016 and St. Lucie Unit 2 May 2021 to April
14 2023. During these periods, the current
15 amortization method will cause total nuclear fuel
16 costs to increase for FPL's customers.

17
18 **Q. Please describe the amortization method FPL**
19 **proposes for nuclear fuel.**

20
21 **A.** FPL proposes to amortize the once burned and twice
22 burned fuel remaining at the end of plant
23 operations in accordance with the method described
24 in the testimony of Ms. Korel M. Dubin.

1 Q. Has FPL quantified the costs of the last core?

2

3 A. Yes, FPL estimates that the cost of the last core
4 is approximately \$77 million. This amount
5 consists of approximately \$54 million for the once
6 burned and \$23 million for the twice burned fuel.
7 (See Exhibit RLW-1.)

8

9

10 Q. Does this conclude your testimony?

11 A. Yes, it does.

1 BY MR. CHILDS (Continuing):

2 Q Did you also prepare a document attached to
3 your testimony that is identified as Exhibit RLW-1, Page
4 1?

5 A Yes, I did.

6 Q Was that prepared by you or under your
7 direction, supervision, or control?

8 A Yes, it was.

9 Q Do you have any changes or corrections to make
10 to that document?

11 A I do not.

12 MR. CHILDS: Commissioner, I ask that that be
13 marked for identification. I believe that would be
14 Exhibit 18.

15 CHAIRMAN DEASON: It will be so identified.

16 BY MR. CHILDS (Continuing):

17 Q Mr. Wade, would you please summarize your
18 testimony?

19 A Yes, I will. The purpose of my testifying here
20 today is to explain to the Commission FPL's request to
21 allow recovery of what is termed "the last core of
22 nuclear fuel." The last core of nuclear fuel is that
23 fuel purchased and installed for use during the last
24 three cycles of unit operation whose cost recovery under
25 current guidelines will not be recovered until the last

1 cycle of operations. The estimated value of that
2 unrecovered cost is approximately 77 million dollars
3 based on the current value of the fuel in our units.

4 Since this cost is a fuel cost and the recovery
5 for fuel costs is through the fuel clause, it is FPL's
6 request and my recommendation that this cost be recovered
7 through the fuel clause during the remaining life of our
8 units. This will more equitably spread the cost to the
9 customers receiving the power from the nuclear units as
10 opposed to unduly burdening those customers that exist
11 during the last cycle of operation.

12 Q Does that conclude your summary?

13 A Yes, it does.

14 MR. CHILDS: We tender the witness for cross.

15 CHAIRMAN DEASON: Mr. McWhirter, do you have
16 questions for this witness?

17 MR. McWHIRTER: No.

18 CHAIRMAN DEASON: Mr. Burgess.

19 CROSS EXAMINATION

20 BY MR. BURGESS:

21 Q Mr. Wade, how long have you been aware that
22 this last core circumstance exists?

23 A I would say it came into a more critical nature
24 during the Carter Administration. Prior to that time,
25 when we first initiated our plants, there was the

1 possibility that fuel could be reprocessed. And probably
2 at that time there were options to say, okay, it could be
3 reprocessed or not. There no longer is that option. Fuel
4 has no salvage value, cannot be reprocessed in the United
5 States as a matter of policy; and, therefore, we are left
6 with this particular issue.

7 Q And I'm sorry, did you say the Carter
8 Administration?

9 A It was approximately the Carter Administration
10 where it was determined that as a matter of government
11 policy we formally would not reprocess fuel.

12 Q You said the prior administration; is that
13 correct?

14 A The Jimmy Carter Administration.

15 Q Oh, okay, the Carter Administration. I heard
16 you correctly the first time.

17 Thank you.

18 CHAIRMAN DEASON: Staff.

19 CROSS EXAMINATION

20 BY MR. KEATING:

21 Q Mr. Wade, is it your understanding that one of
22 the purposes of the fuel cost recovery clause is to
23 recover actual fuel costs?

24 A Yes.

25 Q Okay. Is it correct that the actual cost of

1 the last core of nuclear fuel will not be known until the
2 shutdown of each unit?

3 A Yes.

4 Q To the best of your knowledge, what other
5 states have addressed the recovery of the last core?

6 A Vermont and Minnesota.

7 COMMISSIONER CLARK: Let me ask a question.
8 Have they addressed that for units that are
9 continuing to produce power?

10 WITNESS WADE: Yes, they have, Commissioner.

11 CHAIRMAN DEASON: Staff, you may continue.

12 BY MR. KEATING (Continuing):

13 Q Is it correct that the Minnesota Public
14 Utilities Commission authorized Northern States Power
15 Company to recover its estimated end-of-life nuclear fuel
16 cost as an unfunded decommissioning reserve?

17 A It's my understanding that they have allowed
18 them to recover the last fuel cost as part of
19 decommissioning. Whether it's an unfunded reserve or
20 not, I do not know.

21 Q Is it true that Minnesota has a fuel clause?

22 A I do not know.

23 COMMISSIONER CLARK: Mr. Wade, do you explain
24 in your testimony why it's appropriate to treat this
25 in the fuel clause and not as part of

1 decommissioning?

2 WITNESS WADE: Yes, I do. Basically, we cannot
3 operate the plants without this amount of fuel being
4 in there. It's very similar, in my mind, to where
5 you have a tank of fuel oil and you draw off
6 somewhere above the bottom of the tank so you have a
7 residual amount of fuel oil there. That, under
8 current guidelines, is recoverable as a fuel cost
9 under the clause.

10 In a nuclear reactor, it's very similar. You
11 have to put in a certain amount of fuel that when
12 you're all said and done, no matter when you stop
13 operation, today or sometime in the future, will be
14 left unburned. And the only mechanism in place now
15 to recover a fuel cost is the fuel clause. So it is
16 a cost we incur, but we don't recover it because we
17 haven't burned it.

18 COMMISSIONER CLARK: Well, you've indicated
19 that Minnesota did it as part of decommissioning
20 costs.

21 WITNESS WADE: Right. In the Minnesota case,
22 that order, as I understand it, was put in place in
23 1991. Subsequent to that, in 1996, the Nuclear
24 Regulatory Commission changed the rules on how you
25 could access decommissioning funds and what you

1 could access those funds for. We lease our fuel.
2 Under the current Nuclear Regulatory Commission
3 guidelines, when we shut down the plant, we can only
4 access three percent of the decommissioning funds to
5 do preparatory work for decommissioning. That would
6 leave us with what I believe would be a substantial
7 shortfall between the amount we need to do
8 decommissioning work and to make the lease payments
9 on the fuel that we have used during the last cycle
10 with no method of recovery.

11 COMMISSIONER CLARK: So you're saying that the
12 Minnesota decision is not an option given the 1996
13 NRC decision?

14 WITNESS WADE: I do not see it as an option for
15 us, no. And, frankly, I don't know how Minnesota is
16 going to reconcile that to the new NRC
17 requirements. I have not had any dialogue with
18 them.

19 COMMISSIONER CLARK: What did Vermont do?

20 WITNESS WADE: Vermont has passed it through
21 the fuel clause on an amortization schedule similar
22 to what we have proposed here.

23 BY MR. KEATING (Continuing):

24 Q So, Mr. Wade, let me ask you about the Vermont
25 decision. You stated that in Vermont that they

1 established an amortization schedule similar to what FPL
2 is proposing in this case?

3 A That's my understanding.

4 Q Okay. And Vermont Yankee is one hundred
5 percent wholesale regulated by FERC; is that correct?

6 A That's my understanding.

7 Q Okay. Is amortization expense recovered
8 through Vermont Yankee's wholesale rates?

9 A I don't know.

10 Q Well, if we assume that it is, in effect, FERC
11 would be considering last core as a rate base item; isn't
12 that right?

13 A I don't know.

14 Q Mr. Wade, I've got a copy of selected pages
15 from the FERC's order on the Vermont Yankee decision, and
16 I believe Ms. Lee will give you a copy of that.

17 (DOCUMENT TENDERED TO THE WITNESS).

18 Q I believe this -- Is it your understanding
19 that the FERC's order in this case was an order approving
20 settlement?

21 (WITNESS REVIEWED DOCUMENT)

22 A I have not seen this before today, so --

23 Q Okay.

24 A If that's what it says, I mean I won't dispute
25 that.

1 Q Okay. If you could turn to the third page of
2 that handout, and it's got the number 13 at the top,
3 Section 3.2. Could you read the first sentence in that
4 paragraph?

5 A "It is agreed for purposes of
6 settlement only that Vermont Yankee
7 may collect in rates each month an
8 amount necessary to fund over the
9 Vermont Yankee unit's licensed
10 operating life a reserve equal to
11 the projected cost of the unburned
12 nuclear fuel that will remain in the
13 core at the end of the unit's
14 licensed operating life."

15 Q So you had not reviewed this order prior to
16 filing your testimony?

17 A No, I have not reviewed this order.

18 Q Okay.

19 COMMISSIONER CLARK: Well, just so I'm clear,
20 then it would appear that this isn't a fuel clause
21 recovery. This is just in the rates charged for the
22 wholesale rates?

23 WITNESS WADE: Yeah, that may be. I'm not sure
24 exactly. I mean as I understand, it's over the
25 life -- the remaining life of the plant. I don't

1 know if they have a fuel clause.

2 CHAIRMAN DEASON: This amount is not in any way
3 considered part of your fuel inventory included in
4 your working capital now?

5 WITNESS WADE: It is part of our fuel
6 inventory, and it is part of what we lease as fuel
7 inventory, and it's part of what's amortized; but
8 the way we recover our fuel is as it's burned. If
9 this fuel is never burned or isn't fully burned,
10 then we don't recover the full cost. It's partially
11 burned by the end of life.

12 CHAIRMAN DEASON: So under your proposed
13 treatment, would you be -- when you collect through
14 fuel adjustment, you would be in effect amortizing
15 this over the remaining life of the unit?

16 WITNESS WADE: Yes, that's correct.

17 CHAIRMAN DEASON: So that would be reducing the
18 amount of your fuel inventory?

19 WITNESS WADE: Yes.

20 CHAIRMAN DEASON: And you recover the carrying
21 cost in your fuel inventory through base rates,
22 correct?

23 WITNESS WADE: I don't believe so. I would
24 have to check, but I don't believe we do. I believe
25 we cover the carrying cost and the actual principal

1 through fuel clause.

2 CHAIRMAN DEASON: Okay. I think it's something
3 we need to check on. Maybe staff has some
4 information on that.

5 COMMISSIONER CLARK: Who do you lease your fuel
6 from?

7 WITNESS WADE: I don't know. I don't know the
8 name of the company.

9 COMMISSIONER CLARK: Does everybody lease fuel?

10 WITNESS WADE: No, some people buy it
11 outright. Some people lease, and we just lease. We
12 --

13 COMMISSIONER CLARK: Is it --

14 WITNESS WADE: Well, let me go on and explain.
15 Internally to the company we have an arms-length
16 subsidiary, I guess it is, but I'm not sure of what
17 the name of it is, and that's who we lease through.

18 COMMISSIONER CLARK: Okay. Is it your -- who
19 is responsible then for disposal of the fuel? Is it
20 the entity from which you lease it?

21 WITNESS WADE: No, we are responsible for
22 disposal. And disposal costs, I would agree, would
23 be a decommissioning type expense.

24 MR. KEATING: Commissioner Deason, on your
25 question, were you looking for a response from

1 staff?

2 CHAIRMAN DEASON: Not immediately, but it seems
3 to me that we may need some information, or I would
4 request staff to look at that, to find out how -- I
5 know that it's been a long time since Power &
6 Light's last rate proceeding and that there has been
7 a significant settlement in the meantime, but it
8 seemed to me that in the last -- we could review
9 their last rate order and determine if there was an
10 amount included in working capital for nuclear
11 fuel. I think we could either refer to the order or
12 perhaps through -- I think the order would probably
13 contain that.

14 MR. CHILDS: Commissioner, for what it's worth,
15 you did approve a fuel lease for Florida Power &
16 Light company. I don't have it in front of me, but
17 I think it was in 1976, where all of the, at the
18 time, fuel was leased by the company for purposes of
19 obtaining a lower financing cost and an off-balance
20 sheet treatment. I believe that is what the witness
21 is referring to, but I can -- when he talks about
22 the lease they have; but I can try to get that
23 number for the staff.

24 CHAIRMAN DEASON: Okay. And it's off-balance
25 sheet, then it probably was not part of your last

1 rate base proceeding.

2 MR. CHILDS: That's right.

3 CHAIRMAN DEASON: Okay. If we could verify
4 that, that would be good.

5 MR. KEATING: Okay.

6 BY MR. KEATING (Continuing):

7 Q Mr. Wade, are there other recovery methods
8 other than recovery through the fuel clause that the
9 Commission could consider for these costs?

10 A I guess. I mean that's why we're here, is I
11 assume that at the Commission's discretion they can set
12 up or deny coverage of anything that they see fit.

13 Q Could recovery through nuclear decommissioning
14 be an alternative method?

15 A I don't understand how it would fit the
16 criteria of decommissioning because it's a fuel expense.
17 I guess in my mind it's a fuel expense. There's a
18 mechanism to recover fuel costs, and I just don't see it
19 as a decommissioning expense.

20 Q Is there anything that would specifically
21 prohibit recovery of these costs through nuclear
22 decommissioning?

23 A Not that I'm aware of.

24 Q Is this a cost that's incurred at the time of
25 unit shutdown?

1 A It's a cost, yes, that's realized at the time
2 the unit is shut down for the final time.

3 MR. KEATING: That's all the questions we have.

4 CHAIRMAN DEASON: I have a question. You
5 continue to lease your nuclear fuel, correct?

6 WITNESS WADE: Yes, sir.

7 CHAIRMAN DEASON: Okay. How do you recover the
8 cost of the lease through fuel adjustment under
9 normal procedures, just for nuclear fuel in general?

10 WITNESS WADE: We -- Each assembly has a cost
11 for manufacture, the raw materials plus a leasing
12 cost. That total cost is amortized over the time
13 period that that fuel was burned. So if we have a
14 piece of fuel that's fully burned, that takes about
15 54 months; so that's amortized over 54 months. What
16 we're talking about here is that when you get to the
17 end, you have some fuel that's only been burned for
18 one cycle, approximately 18 months. Some fuel
19 that's only been burned for two cycles and,
20 therefore, you have not recovered the full amount.
21 And that's --

22 CHAIRMAN DEASON: And how do you actually pay
23 your lease? Is it on an as-burned basis or not?

24 WITNESS WADE: I don't know that answer. I'd
25 have to check.

1 CHAIRMAN DEASON: Because if your lease cost is
2 only based on an as-burned basis, that's the cost
3 that you're incurring, correct?

4 WITNESS WADE: Well, we have to pay for all of
5 the fuel that we purchase. And the lease, of
6 course, would carry the capital cost -- the carrying
7 costs on that, and we pay for the fuel. We're
8 obligated to pay for a hundred percent of the fuel,
9 whether we burn it or not.

10 CHAIRMAN DEASON: And that's part of your lease
11 payment, correct?

12 WITNESS WADE: Yes, that's correct.

13 CHAIRMAN DEASON: So then you're already paying
14 for the unburned portion within your lease payment,
15 and that is allowed to be -- I guess what I'm trying
16 to determine, who is paying the carrying cost on
17 this in the sense that if it's not part of your
18 lease obligation, is there any obligation then to
19 pass through to ratepayers?

20 WITNESS WADE: This is similar to -- I liken it
21 to maybe buying a tank of gas. We pay for the tank
22 of gas, but as we use it, we recover the cost from
23 the ratepayer. So we pay the lease company. We pay
24 for all the material. We pay all the costs, and
25 then we recover it back as we use it. If we don't

1 use a portion of it but we need it to get, you know,
2 to get the car to run, which is really what's
3 happening here, we still have to pay for that. And
4 because the timing is such that when you shut down
5 the last time, you no longer have customers, the
6 fuel clause is no longer in effect, you now have a
7 piece of your fuel that you haven't recovered.

8 CHAIRMAN DEASON: So you're saying your lease
9 obligation is for the full amount of fuel regardless
10 of when it's burned?

11 WITNESS WADE: Yes.

12 COMMISSIONER JACOBS: For the 54-month cycle?

13 WITNESS WADE: Well, if you completely use the
14 fuel that you buy today, it takes about 54 months
15 for you to use it up.

16 COMMISSIONER JACOBS: Okay.

17 WITNESS WADE: If you were to stop operating
18 something short of that, then you have fuel that you
19 haven't used up, but you have bought it. But you
20 need it in there. You need that amount of fuel in
21 there to be able to operate.

22 COMMISSIONER CLARK: How is this amount
23 affected by extension of the licenses for your
24 plants?

25 WITNESS WADE: It will exist, Commissioner,

1 whether we shut down today or whether we shut down
2 20 years hence from the current licensed life
3 because --

4 COMMISSIONER CLARK: Won't it affect the amount
5 though?

6 WITNESS WADE: It will affect the amount. And,
7 in fact, the amount will change as we go along, I
8 think, possibly slightly up or down. And that's
9 because fuel prices change.

10 COMMISSIONER CLARK: What have you based your
11 request on in this case? Is it that they will
12 operate until the end of the current license?

13 WITNESS WADE: Yeah, we've based it that they
14 would operate on the current license, and the cost
15 that we have proposed is based on the value in the
16 core today without any escalation or deflation
17 factors applied.

18 CHAIRMAN DEASON: So it's your testimony that
19 you have already paid for fuel that you have not yet
20 burned so you have not been able to recover it
21 through the clause and that it is going to be an
22 obligation at the time that you retire the plant and
23 that you want to initiate recovery over the
24 remaining life of the plant; am I understanding your
25 position?

1 WITNESS WADE: Yes, that's essentially it.

2 CHAIRMAN DEASON: And it is your testimony you
3 have already paid for this fuel?

4 COMMISSIONER JACOBS: You leased it.

5 WITNESS WADE: We have paid for the fuel that's
6 currently in use, and we have incurred, because of
7 our fuel management scheme, a last core. In other
8 words, there will be a last core. If we just left
9 it the way it was, the last cycle of operation, we
10 would have to recover, at least under the current
11 rules, as I read them, all of that. So we would be
12 recovering the fuel we burn, which is normally what
13 we recover, plus this unused portion. And based on
14 our current estimates, that's about an additional 77
15 million dollars. So it would be, essentially,
16 double at that point in time as opposed to something
17 less if we amortize it over the remaining life.

18 COMMISSIONER CLARK: I'm not sure I understood
19 the implications of the answer you gave on the
20 decommissioning cost. You indicated it was limited
21 to three percent of the amount in the
22 decommissioning fund for --

23 WITNESS WADE: Right. Initially, when you --
24 Approximately five years before you shut down the
25 plant, you're required to file a plan, a

1 decommissioning plan with the Nuclear Regulatory
2 Commission. Up until the point that you take the
3 fuel out of the reactor and basically put it in the
4 spent-fuel pool, you have a limitation that you can
5 spend three percent of what the NRC says is for
6 decommissioning and planning and engineering. Once
7 you get that out, that fuel out and you meet that
8 milestone, so you've been shut down for some period
9 of time and the fuel is cooled and you can move it,
10 then you can access other funds, provided you've met
11 some other criteria also.

12 COMMISSIONER CLARK: Well, the NRC hasn't said
13 it can't be used to fund last-core costs?

14 WITNESS WADE: No, it hasn't said that it could
15 not, no.

16 COMMISSIONER CLARK: But the reason you think
17 it wouldn't be is because it would exceed the three
18 percent threshold?

19 WITNESS WADE: Yes, along with the other things
20 we have to do to meet the requirements for
21 legitimate -- what I call legitimate
22 decommissioning.

23 COMMISSIONER CLARK: Okay.

24 CHAIRMAN DEASON: Okay. Would it be
25 possible -- If we were to allow a recovery of

1 these costs through the fuel adjustment clause,
2 would it be possible to have that recovery become
3 part of your funded decommissioning reserve and have
4 it earmarked for purposes of recovery of fuel costs,
5 of the fuel costs?

6 WITNESS WADE: I'm not really someone to answer
7 that because I'm not that familiar with how reserves
8 are set up with the Commission.

9 CHAIRMAN DEASON: I think that's something
10 staff needs to maybe contemplate.

11 The question is this: If we were to allow
12 recovery of this portion of the nuclear fuel, would
13 it be permissible or possible to have the recovery
14 actually become part of the funded reserve and have
15 it earmarked for purposes of recovery of nuclear
16 fuel as opposed to actual decommissioning?

17 My concern is that we've developed a policy
18 where nuclear decommissioning should be a reserve.
19 It should be a funded reserve. And we periodically
20 look at that. I know that these fuel costs maybe
21 are going to escalate over time and be a larger
22 amount. It needs to be something that needs to be
23 continually monitored, and we need to be assured
24 that the funds are there when it comes time. If we
25 just allow recovery now, it seems to me that we

1 don't have that guarantee. And it may be something
2 staff needs to evaluate, and if you have any
3 thoughts on the matter, I'd be certainly willing to
4 listen to your thoughts.

5 WITNESS WADE: Well, Commissioner, I guess my
6 feeling is, is that we could certainly have an
7 account that's a part of the fuel clause account
8 that says this is associated recovery of last core.
9 And each year we go through true-up, and as we find
10 out new things -- for example, maybe the price is
11 going down so that we need to change that
12 adjustment, or maybe things have changed and it's
13 going up. We would have the opportunity, I think,
14 to bring forward to you those issues as well as
15 staff could raise issues and decide does the
16 adjustment need to be changed. So I think the fuel
17 clause, as it's set up with the annual filings and
18 true-ups, provides an excellent mechanism to track
19 these costs and make adjustments as events warrant.

20 CHAIRMAN DEASON: Yes, but if it becomes part
21 of the funded reserve, that reserve is invested and
22 it earns a rate of return, and so that the time
23 value of that money, the ratepayers get the benefit
24 of that over time; and it seems to me that we may
25 want to retain the same benefit if we allow recovery

1 now of costs ultimately that are going to have to be
2 paid down the road, that the customers get the
3 benefit of that as well, and we are assured that the
4 funds are there for that purpose and that you don't
5 have to go into other aspects of your nuclear
6 decommissioning fund to recover this particular
7 portion of unused nuclear fuel.

8 WITNESS WADE: I understand what you're
9 saying.

10 CHAIRMAN DEASON: Redirect?

11 MR. CHILDS: Yes, I have a few.

12 REDIRECT EXAMINATION

13 BY MR. CHILDS (Continuing):

14 Q Mr. Wade, you were asked about not knowing what
15 the costs would be until the units are shut down. Would
16 you turn to your document RLW-1?

17 (WITNESS COMPLIED)

18 Q Is that where you have shown your estimate of
19 the cost of the fuel when the units would be shut down?

20 A Yes, it is.

21 Q And are those costs based upon current costs
22 for fuel?

23 A Yes, they are.

24 Q So you have not escalated that to the future?

25 A I have not.

1 Q Would you explain why that -- why you did it
2 that way?

3 A Well, the reason I didn't escalate it out to
4 the future is that the historic costs of uranium and some
5 of the other elements which go into manufacturing fuel
6 have been relatively stable, and there's nothing that is
7 going on, if you will, or on the horizon that leads me to
8 believe an escalation factor, or necessarily a deflation
9 factor, is warranted at this time. So I have this
10 information. This information is accurate for the fuel
11 we currently have on hand, and I feel very comfortable
12 with these numbers. Anything out into the future would
13 be a little more speculative.

14 Q Now if these -- assuming that, or knowing that
15 these numbers are based upon current costs, if the units
16 continue to operate at the point in time here as shown on
17 your exhibit, if they were not shut down but continued to
18 operate, would the costs that you include here, in fact,
19 be the fuel costs for operating those nuclear units?

20 A Yes, it would.

21 Q Do they include any decommissioning costs in
22 these numbers?

23 A No, they do not.

24 Q Do they include any spent-fuel storage costs in
25 these numbers?

1 A No, they do not.

2 Q You were asked about costs and decommissioning
3 as well, and I think you said -- you referred to, that it
4 would be akin to or analogous to costs that are left in
5 the bottom of fuel tanks. Do you recall that answer?

6 A Yes, I do.

7 Q Do you know how this Commission treats tank
8 bottoms for oil in the fuel adjustment clause?

9 A Yeah, my understanding is, is that those are
10 recoverable through the fuel clause.

11 Q If the costs are not recovered as you're
12 proposing or some other alternative is not selected,
13 would that mean that the costs associated with the last
14 core would remain to be recovered from customers after
15 the nuclear units are shut down? You would have a cost
16 left over that you --

17 A I would have a cost left over, yes.

18 Q But you would not have any operation of the
19 nuclear unit that would produce fuel savings at that time
20 either, would you?

21 A That's correct.

22 Q And if you recover the costs this way, would it
23 then have an effect that you think is beneficial by
24 spreading that cost over as many customers as possible
25 that, in fact, benefit from the output of those units?

1 A If it was treated as proposed here, that is
2 correct.

3 Q Okay.

4 MR. CHILDS: That's all I have.

5 CHAIRMAN DEASON: Okay.

6 MR. CHILDS: I have reference to the order. I
7 was wrong. It's not 76; it's 79. And the order is
8 8923, and I have at least one copy here.

9 CHAIRMAN DEASON: Okay. Staff may wish to
10 refer to that. You wish to move Exhibit 18?

11 MR. CHILDS: I do move it into evidence.

12 CHAIRMAN DEASON: Without objection show then
13 it is admitted.

14 MR. CHILDS: And I call Ms. Dubin.

15 (WHEREUPON, the transcript continues in
16 sequence in Volume 2 without omission)

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