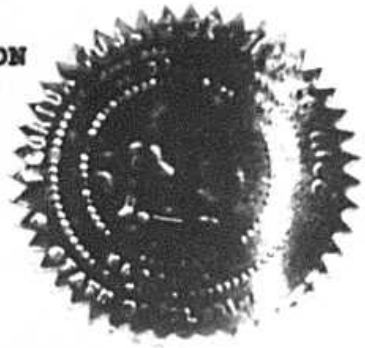
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of	DOCKET NO. 950001-EI
Fuel and Purchased Power Cost Recovery Clause with Generation Performance Incentive Factor	

FIRST DAY - MID-MORNING SESSION

VOLUME 2

Pages 181 through 309



PROCEEDINGS:	**HEARING**
BEFORE:	COMMISSIONER J. TERRY DEASON COMMISSIONER JULIA L. JOHNSON COMMISSIONER DIANE K. KIESLING
DATE:	**Wednesday, March 8, 1995**
TIME:	Commenced at 10:00 a.m.
PLACE:	Fletcher Building FPSC Hearing Room 106 101 East Gaines Street Tallahassee, Florida
REPORTED BY:	JOY KELLY, CSR, RPR Chief, Bureau of Reporting SYDNEY C. SILVA, CSR, RPR ROWENA NASH HACKNEY Official Commission Reporters

APPEARANCES:

(As heretofore noted.)

WITNESSES - VOLUME 2

EXHIBITS - VOLUME 2

NUMBER		IDENTIFIED	ADMITTED
39	(Birkett) Response to Florida Steel's First Set of Interrogatories, No. 5	225	262
12			262
13			262
40	(Silva) Florida Steel's First Set of Interrogatories, No. 1, Schedule A3	302	
41	(Silva) 12-2-94 Wall Street Journal article	308	
42	(Silva) 3-6-95 Wall Street Journal article	308	

PROCEEDINGS

(Transcript follows in sequence from Volume 1.)

COMMISSIONER DEASON: Okay. Now we can move to the testimony of those witnesses whose testimony has not been inserted into the record. And I'm going to ask all witnesses in all dockets which are present in the room at this time who will be testifying today to please stand and raise your right hand.

(Witnesses collectively sworn.)

COMMISSIONER DEASON: Thank you, please be seated. I believe that the first scheduled witness is witness Birkett.

MR. CHILDS: That's correct.

- - - - -

B. T. BIRKETT.

was called as a witness on behalf of Florida Power and Light Company and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. CHILDS:

Q Would you state your name and address, please?

A My name is Barry T. Birkett. My address is 9250 West Flagler Street, Miami, Florida.

Q By whom are you employed and in what capacity?

Q And are the documents that you [illegible] prepared by you or under your direction, supervision or control?

A Yes, they were.

Q Do you have any changes or corrections to make either to the testimony or the documents you are sponsoring?

A No, I do not.

Q Do you adopt this as your testimony in this proceeding?

A Yes, I do.

MR. CHILDS: Commissioner, we ask that the prepared testimony of Mr. Birkett be inserted into the record as though read.

COMMISSIONER DEASON: Without objection it will be so inserted.

MR. CHILDS: And I believe that -- I don't recall the numbers, but the documents he is sponsoring have be already been numbered according to your numbering sequence.

COMMISSIONER DEASON: That's correct. They have been identified.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF B.T. BIRKETT

DOCKET NO. 940001-EI

November 14, 1994

Q. **Please state your name, business address, employer and position.**

A. My name is Barry T. Birkett, and my business address is 9250 West Flagler Street, Miami, Florida, 33174. I am employed by Florida Power & Light Company (FPL) as Manager of Rates and Tariff Administration.

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

A. Yes, I have.

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

A. The purpose of my testimony is to present the schedules necessary to support the actual Fuel Cost Recovery Clause (FCR), Capacity Cost Recovery Clause (CCR), and Oil Backout Cost Recovery Clause (OB) Net True-Up amounts for the period April 1994 through September 1994. The Net True-Up for FCR is an underrecovery,

including interest, of $6,684,993. The Net True-Up for CCR is an overrecovery, including interest, of $2,159,836. The Net True-Up for OB is an overrecovery, including interest, of $11,602. I am requesting Commission approval to include these true-up amounts in the calculation of the FCR, CCR, and OB factors respectively, for the period April 1995 through September 1995.

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

A. Yes, I have. It consists of four appendices. Appendix I contains the FCR related schedules, Appendix II contains the CCR related schedules, and Appendix III contains the OB related schedules. Also attached to this filing is Appendix IV, which contains Commission Schedules A-1 through A-13 for April 1994 through September 1994 period.

Q. **What is the source of the data which 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 FPL. The books and records are kept in the regular course of our 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 CLAUSE (FCR)

Q. **Please explain the calculation of the Net True-up Amount.**

A. Appendix I, page 3, entitled "Summary of Net True-Up Amount", shows the calculation of the Net True-Up for the period, an underrecovery of $6,684,993, which I am requesting be included in the calculation of the Fuel Cost Recovery Factor for the period April 1995 through September 1995. The calculation of the true-up amount for the period follows the procedures established by this Commission as set forth on Commission Schedule A-2 "Calculation of True-Up and Interest Provision".

The actual End-of-Period overrecovery of $27,833,669 shown on line 1 less the estimated/actual End-of-Period overrecovery of $34,518,662 shown on line 2 that was included in the calculation of the Fuel Cost Recovery Factor for the period October 1994 through March 1995, results in the Net True-Up for the period shown on line 3, an underrecovery of $6,684,993.

Q. **Have you provided a schedule showing the variances between actuals and estimated/actuals?**

A. Yes. Appendix I, page 4, entitled "Calculation of Final True-up Variances", shows the actual fuel costs and revenues compared to the estimated/actuals for the period April through September 1994.

Q. **What was the variance in fuel costs?**

A. As shown on Appendix I, page 4, line A7, actual fuel costs on a Total Company basis were $6.6 million higher than the estimated/actual projection. This variance is detailed by major cost components on Appendix I, page 5, entitled "Final True-up Variance Analysis". The $6.6 million total system variance was primarily caused by a $20.0 million increase in the Fuel Cost of System Net Generation, a $5.6 million increase in Energy Cost of Economy Purchases, offset by a $14.6 million decrease in the Fuel Cost of Purchased Power, and a $4.5 million decrease in Energy Payments to Qualifying Facilities.

Q. **What was the variance in retail (jurisdictional) Fuel Cost Recovery revenues?**

A. As shown on line D1, actual jurisdictional Fuel Cost Recovery revenues, net of revenue taxes, were $2.3 million lower than the estimated/actual projection. This decrease was due to lower jurisdictional kWh sales. Jurisdictional sales were 134,202,482 kWh (.34%) lower than the estimated/actual projection.

Q. **Have you provided a schedule explaining the reasons for these variances?**

A. Yes. Pages 5 and 6, of Appendix I, contain a more detailed analysis of the cost variances with a corresponding explanation for

each significant variance.

CAPACITY COST RECOVERY CLAUSE (CCR)

Q. Please explain the calculation of the Net True-up Amount.

A. Appendix II, page 3, entitled "Summary of Net True-Up Amount" shows the calculation of the Net True-Up for the period, an overrecovery of $2,159,836, which I am requesting be included in the calculation of the Capacity Cost Recovery Factor for the period April 1995 through September 1995.

The actual End-of-Period overrecovery of $18,941,197, shown on line 1 less the estimated/actual End-of-Period overrecovery of $16,781,361, shown on line 2 that was included in the Capacity Cost Recovery Factor for the period October 1994 through March 1995, results in the Net True-Up shown on line 3, an overrecovery of $2,159,836.

Q. Have you provided a schedule showing the calculation of the End-of-Period true-up?

A. Yes. Appendix II, page 4, entitled "Calculation of Final True-up Amount", shows the calculation of the CCR End-of-Period tue-up for the period April 1994 through September 1994. The End-of-Period true-up shown on line 19 is an overrecovery of $18,941,197.

Q. Is this true-up calculation consistent with the true-up methodology used for the other cost recovery clauses?

A. Yes it is. The calculation of the true-up amount follows the procedures established by this Commission as set forth on Commission Schedule A-2 "Calculation of True-Up and Interest Provision" for the Fuel Cost Recovery Clause.

Q. Please explain the calculation of the interest provision.

A. Appendix II, page 5, entitled "Calculation of Interest Provision", shows the calculation of the interest provision for the period April 1994 through September 1994 and follows the same methodology used in calculating the interest provision for the other cost recovery clauses, as previously approved by this Commission.

The interest provision is the result of multiplying the monthly average true-up (line 4) by the monthly average interest rate (line 9). The average interest rate is developed using the 30 day commercial paper rate as published in the Wall Street Journal on the first business day of the current and subsequent months. The interest calculated during the period amounts to $2,728 as shown on line 10.

Q. **Have you provided a schedule showing the variances between actuals and estimated/actuals?**

A. Yes. Appendix II, page 6, entitled "Calculation of Final True-up Variances", shows the actual capacity charges and applicable revenues compared to the estimated/actuals for the period April 1994 through September 1994.

Q. **What was the variance in net capacity charges?**

A. As shown on line 6, actual net capacity charges on a Total Company basis were $4.2 million lower than the estimated/actual projection. This variance was primarily due to lower than expected capacity payments to the Southern Company for Unit Power Sales (UPS) and to Jacksonville Electric Authority (JEA) for SJRPP. The actual UPS capacity charges were $2.5 million lower than the estimated/actual projection primarily due to common investment for all units being lower than projected. Capacity Charges paid to JEA were $2.2 million lower than the estimated/actual projection due to a prior period billing adjustment.

Q. **What was the variance in Capacity Cost Recovery revenues?**

A. As shown on line 13, actual Capacity Cost Recovery revenues, net of revenue taxes, were $2.0 million lower than the estimated/actual projection. This decrease was primarily due to lower jurisdictional kWh sales than projected. Jurisdictional sales were 134,202,482

kWh (.34%) lower than estimated/actual projection.

OIL BACKOUT COST RECOVERY CLAUSE (OB)

Q. Please explain the calculation of the Net True-up Amount.

A. Appendix III, page 3, entitled "Summary of Net True-Up Amount", shows the calculation of the Net True-Up for the period, an overrecovery of $11,602, which I am requesting be included in the calculation of the Oil Backout Cost Recovery Factor for the period April 1995 through September 1995.

The actual End-of-Period overrecovery of $519,854, shown on line 1 less the estimated/actual End-of-Period overrecovery of $508,252, shown on line 2 that was included in the Oil Backout Cost Recovery Factor for the period October 1994 through March 1995, result in the Net True-Up shown on line 3, an overrecovery of $11,602.

Q. What is the purpose of the schedule showing kWh sales?

A. The purpose of the schedule showing kWh sales on page 5, is to calculate the monthly percentage of retail (jurisdictional) kWh sales to total kWh sales. This monthly percentage (jurisdictional factor) is used to allocate costs between retail and wholesale customers. These kWh sales are consistent with the kWh sales shown in the FCR and CCR schedules.

Q. **Have you provided a schedule showing the calculation of the End-of-Period true-up?**

A. Yes. Appendix III, page 6, entitled "True-up Calculation" shows the calculation of the OB End-of-Period true-up for the period April 1994 through September 1994. The End-of-Period true-up shown on line 12, is an overrecovery of $519,854.

Q. **Is this true-up calculation consistent with the true-up methodology used for the other cost recovery clauses?**

A. Yes it is. The calculation of the true-up amount follows the procedures established by this Commission as set forth on Commission Schedule A-2 "Calculation of True-Up and Interest Provision" for the Fuel Cost Recovery Clause.

Q. **Please explain the calculation of the interest provision.**

A. Appendix III, page 7, shows the calculation of the interest provision for the period April 1994 through September 1994 and is consistent with the procedures used in calculating the interest for the FCR and CCR clauses. The interest calculated for the period is $6,049, as shown on line 10.

Q. **Have you provided a schedule showing the variances between actuals and estimated/actuals?**

A. Yes. Appendix III, page 8, entitled "Calculation of Final True-up

Variances", shows the actual Oil Backout costs and revenues compared to the estimated/actuals for the period April 1994 through September 1994.

Q Have you provided a schedule explaining the reasons for these variances?

A Yes. Pages 9 and 10, of Appendix III, provide a more detailed analysis of the variances with corresponding explanations.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF BARRY T. BIRKETT

DOCKET NO. 950001-EI

JANUARY 17, 1995

Q. Please state your name and address.

A. My name is Barry T. Birkett and my business address is 9250 West Flagler Street, Miami, Florida 33174.

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

A. I am employed by Florida Power & Light Company (FPL) as the Manager of Rates and Tariff Administration.

Q. Have you previously testified in this docket?

A. Yes, I have.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present for Commission review and approval the fuel cost recovery factors, the capacity payment factors and the oil backout factor for the Company's rate schedules

for the period April 1995 through September 1995. The calculation of the fuel cost recovery factors is based on projected fuel cost and operational data as set forth in Commission Schedules E1 through E10, H1 and other exhibits filed in this proceeding and data previously approved by the Commission.

In addition, my testimony presents the schedules necessary to support the calculation of the Estimated/Actual True-up amounts for the Fuel Cost Recovery Clause (FCR), Capacity Cost Recovery Clause(CCR), and Oil Backout Cost Recovery Clause (OB), for the period October 1994 through March 1995. I have included explanations for the variances between the original projections for the period October 1994 through March 1995 approved at the August 1994 hearings, versus the two months actual/four months revised projections for the same period (Estimated/Actual).

Q. Have you prepared or caused to be prepared under your direction, supervision or control an exhibit in this proceeding?

A. Yes, I have. It consists of various schedules included in Appendices II, III, IV, and V. Appendices II and III contains the FCR related schedules, Appendix IV contains the capacity related schedules, and Appendix V contains the Oil-backout related schedules.

Also, included in Appendix III (pages 7 through 49) are the Commission Schedules A1 through A13 for October and November 1994. These schedules were prepared by various departments including Power Supply, Rates, Plant Services and Accounting, and present a monthly comparison between the original projections and the actual generation, sales and fuel costs for the two months.

Q. What is the source of the data which 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 FPL. The books and records are kept in the regular course of our 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 CLAUSE

Q. What are the proposed fuel factors for which the Company requests approval?

A. The proposed Fuel factors for which the Company is requesting approval are shown on Schedule E1, Page 4 of Appendix II for Non Time of Use Rates and Schedule E1, Page 5 of Appendix II for Time of Use Rates. Schedule E2, Page 6 of Appendix II indicates the

monthly fuel factors for April 1995 through September 1995.

Q. Has the Company made any changes to the Fuel Cost Recovery Clause being proposed?

A. Yes, we have. The Company is proposing to change the allocation of fuel costs. This proposed method was originally submitted on June 27, 1994 and deferred to this filing during the August 1994 Fuel hearings.

Q. Please describe why FPL is proposing to change the allocation of fuel costs?

A. The current method of charging customers in all classes based on the same average cost per kWh assigns cost responsibility as if all kWhs have an equal impact on FPL's fuel cost. A more appropriate methodology would recognize and take into account the fact that system fuel cost is not the same in all hours of the day, nor in all days of the year due to differences in the level of generation and in the cost of fuel for, and the efficiencies of, generation units. A more appropriate allocation methodology would reflect that each rate class does not comprise the same proportion of system kWh sales in every hour, but that the proportions change from hour to hour. A methodology that took all of this into account would reflect that some classes use more energy in higher cost periods than do other

classes rather than having all customers classes pay the same average fuel costs. FPL is proposing a change to the allocation of fuel costs through the Fuel Cost Recovery Clause which addresses differences in costs and class kWh usage between hours and results in a more appropriate allocation of cost between customer classes.

Q. Will you describe FPL's proposed fuel cost allocation method?

A. The allocation method which FPL is proposing recognizes that system fuel cost per kWh increases and decreases as load increases and decreases. This is the result of the use of economic dispatch, under which the most economical units are called upon to serve load first. As load grows, units with higher incremental costs are called upon, resulting in increasing costs per kWh. It would be impractical to attempt to project fuel cost by hour for a six month period and to match that with a projection of kWh sales by rate class. Instead, our proposed methodology looks at the hourly loads from the previous year and the contribution of each class to those hourly loads. The kWhs consumed in each hour are weighted such that kWhs in those hours with higher loads are allocated a higher proportion of total fuel cost to reflect the higher fuel cost for those hours. The kWhs in those hours with lower loads receive lower weights and thus are allocated a lower proportion of total system fuel cost. This weighting of kWhs by the load in the hour in which they

were consumed is done for each rate class. By doing this, the method proposed by FPL results in the establishment of Fuel Cost Recovery factors for each class such that the price is highest for those classes which contribute the most to the hours with the highest load.

I am using "higher" and "lower" as relative terms as compared to a typical hour. Loads in a "higher" hour are higher than those in a typical hour and result in a higher fuel per kWh than in a typical hour. Loads in a "lower" hour are lower than those in a typical hour and result in a lower fuel cost per kWh than in a typical hour.

Q. Please summarize the calculation of the fuel cost recovery factors under the method proposed by FPL.

A. In FPL's proposed methodology, each hour from the historic period is given a weight based upon that hour's contribution to total retail kWh for the period. The weight calculated for each hour is then applied to the kWh for each class in that hour. These "weighted kWhs" are summed for each class and the contribution of each class to the total weighted kWhs for the historic period is determined. A ratio of weighted kWh contribution to unweighted kWh contribution, or price multiplier, is then calculated for each rate class. This price multiplier is then applied to the system average Fuel Cost Recovery

factor for the projected period to determine the class factor before losses. The delivery loss multipliers for each rate class then are applied to establish the Fuel Cost Recovery factors for the classes. The calculation of the Fuel Cost Recovery factors for the non-time of use classes is shown on Schedule E1, Page 4 of Appendix II .

Under FPL's proposal, classes which contribute more to high-load periods than to lower-load periods will have a higher percentage of the weighted kWh than unweighted kWh. These classes will thus have a price multiplier greater than one and a fuel factor higher than the average factor. The opposite is true for classes with greater contributions to lower-load (and lower cost) periods.

Q. How are charges for Time Of Use (TOU) classes established in your proposed methodology?

A. The charges for TOU rate classes start with the factor calculated as discussed above for the non-TOU counterpart to each class (e.g. the RS-1 factor is the basis for the RST-1 factor, etc.). The calculation also uses the on-peak, off-peak and average marginal fuel costs projected for the period as presented in the twentieth revision of COG-1 Tariff Sheet No. 10.101, effective October 1, 1994. The ratio of the onpeak marginal cost to the average marginal cost would be applied to the class Fuel Cost Recovery factor to determine the

onpeak fuel factor. Likewise, the ratio of the offpeak marginal cost to the average marginal cost would be used to calculate the offpeak fuel factor. These factors based on the marginal cost ratios are then adjusted, both by the same percentage, to achieve revenue neutrality. The calculation of the Fuel Cost Recovery factors for the TOU classes is shown on Schedule E1, Page 5 of Appendix II.

Q. Is this the method currently used to calculate Fuel Cost Recovery factors for TOU classes?

A. No, it is not. Under the method currently used, system average onpeak and offpeak factors are calculated using total system fuel costs and kWhs projected for the onpeak and offpeak periods. The proposed method improves upon that in two ways. First, the use of the Fuel Cost Recovery factor for the counterpart non-TOU class result in the same allocation improvement discussed above. In addition, the use of the marginal cost ratios to calculate onpeak and offpeak fuel factors results in a price signal to TOU customers which better reflects the impacts on the system of onpeak and offpeak usage.

Q. How does the FPL proposal affect "fuel symmetry"?

A. This question was first raised at the Commission's workshop called to discuss FPL's proposal. To my knowledge, fuel symmetry is a

theoretical concept for which there is no single common definition or usage. Basically, fuel symmetry refers to the relationship between the allocation of fuel costs and the allocation of production plant costs among classes or customers within classes. For example, some use fuel symmetry as a basis to propose that customer classes pay for each type of fuel in the same proportion that they pay the fixed costs associated with the plant(s) that burn the fuel.

Classes with lower than average load factors, primarily residential classes, by definition contribute a greater proportion to system peak loads than to total kWh sales. The class's contribution to system peak loads is important because fixed power plant costs are allocated to each class on that basis. For exampe, a class could pay for 60% of the fixed costs associated with power plants (based on its peak contribution) but use only 50% of the total kWh. Under the current method, the class would pay for 50% of the fuel costs. The fuel symmetry theory says that this class should pay 60% of the total fuel cost even though it uses only 50% of the kWh. As such, the fuel symmetry theory says this class should pay 60% of the fuel cost without even looking at the class's contribution to the causation of those fuel costs.

The necessary relationship between cost causation for the fixed plant

costs and for the fuel cost does not exist to support the application of fuel symmetry as I understand it.

Q. Is this concept appropriate for application here?

A. No. In my opinion, fuel symmetry represents an incorrect attempt to simplify a relationship which is very complex -- a relationship which really should not impact a decision on the use of FPL's proposed allocation methodology.

Q. Why should the Commission rule on the allocation of fuel cost separately from the allocation of base rate costs?

A. Fuel costs are a different type of cost from fixed costs, with different cost causation, and are appropriately allocated on different bases. Fuel costs are variable costs, that is the level of cost varies according to the level of kWh usage by customers. Under the current allocation methodology, each kWh used by our customers is assumed (implicitly) to have the same impact on fuel costs. Under our proposed allocation methodology, kWhs used when loads are the highest are assumed to have a greater impact on fuel costs than those used during lower load periods, which more accurately reflects the causation of the fuel costs. Both methods, though, reflect the fact the fuel costs are variable costs, or costs which vary with the number of kWh.

Fixed production costs, on the other hand, do not vary with the number of kWh used. In its recent decisions, the Commission has allocated these costs to classes based on each class' contribution to monthly system peaks. This is consistent with the causation of the fixed costs because new plants are built (or capacity is purchased) as the utility's peak loads increase.

Q. How does this relate to the fuel symmetry discussion?

A. As I explained, there are different bases used for the allocation of fuel costs and fixed productions costs -- bases which reflect the drivers, or cost-causation factors -- of those costs. As such, it would be inappropriate to simply say that "Class A pays for x% of this type of power plant so it should pay for x% of the fuel from that type of plant." In other words, "fuel symmetry" is an approach which would not reflect the underlying basis of FPL's fuel costs. The result I pointed out earlier is just as wrong from a theoretical standpoint as it is from a common-sense point of view.

Q. If the Commission were to say that "fuel symmetry" was to be one of the criteria used to determine the appropriate allocation of fuel costs, how would that impact the appropriateness of your proposed methodology compared to the current methodology?

A. It shouldn't impact the appropriateness of our proposal at all. The

allocation method being proposed by FPL really has a small impact on the proportion of total fuel costs allocated to each class. Because the change is small, there should not be any significant change in whatever fuel symmetry might or might not exist, which would be accidental in either case, under the current methodology.

Q. Does FPL have any other costs that should be recovered through the Fuel Cost Recovery Clause?

A. Yes. FPL is including in the proposed Fuel Cost Recovery Factor the cost of implementing certain equipment modifications at some of its generating facilities to enable these facilities to operate using a less expensive grade of residual fuel oil. As further discussed in the testimony of Rene Silva, the cost of these modifications are estimated to be $2,754,502.

The Company has analyzed several alternative periods for recovery of these costs, which would normally be put into rate base. We have determined that expensing these costs in the month of April 1995, the first month of the recovery period, is the least costly alternative for our customers. The cost to our customers would be lowest, on a net present value basis, if the cost is expensed rather than capitalized and recovered over time with FPL earning a return on the investment.

Q. What is the basis for requesting recovery of these equipment modifications through the Fuel Cost Recovery Clause?

A. The Commission in Docket No. 850001-EI-B, Order No. 14546 issued on July 8, 1985 stated, regarding the charges appropriately included in the calculation of fuel expense:

> "Fossil fuel-related costs normally recovered through base rates but which were not recognized or anticipated in the cost levels used to determine current base rates and which, if expended, will result in fuel savings to customers. Recovery of such costs should be made on a case by case basis after Commission approval."

The Company has estimated that these modifications costing $2,754,502 will yield fuel savings of approximately $8.38 million during the April through September 1995 period and $81.3 million from 1995 to 1999. Since these or similar modifications have not been made at any other generating unit, FPL believes that these or similar costs have not been recognized in cost levels used to determine FPL's current base rates.

While I am not aware of an instance in which the Commission approved a similar cost for recovery through the Fuel Cost Recovery clause, these expenditures will result in signficant fuel savings for FPL's customers and appear to be the type of a costs which the

Commission contemplated being recovered through the clause. For these reasons, FPL believes that it is appropriate to bring this issue forward for Commission consideration and approval.

Q. What adjustments are included in the calculation of the six-month levelized fuel factor shown on Schedule E1, Page 3 of Appendix II?

A. As shown on line 28 of Schedule E1, Page 3, of Appendix II the estimated/actual fuel cost overrecovery for the October 1994 through March 1995 period amounts to $21,299,545. This estimated/actual overrecovery for the October 1994 through March 1995 period plus the final underrecovery $6,684,993 for the April 1994 through September 1994 period results in a net overrecovery of $14,614,552. This amount, divided by the projected retail sales of 39,346,511 MWh for April 1995 through September 1995 results in a decrease of .0371¢ per kWh before applicable revenue taxes. In his testimony for the Generating Performance Incentive Factor, FPL Witness R. Silva calculated a reward of $3,065,156 for the period ending September 1994, to be applied to the April 1995 through September 1995 period. This $3,065,156 divided by the projected retail sales of 39,346,511 MWh during the projected period, results in an increase of .0078¢ per kWh, as shown on line 32 of Schedule E1, Page 3 of Appendix II.

Q. Please explain the calculation of the Estimated/Actual True-up amount you are requesting this Commission to approve.

A. Appendix III, page 3, shows the calculation of the Estimated/Actual True-up amount. The calculation of the estimated/actual true-up amount for the October 1994 through March 1995 is an overrecovery, including interest, of $21,299,545 (Column 7, lines D7 plus D8). This amount, when combined with the Final True-up underrecovery of $6,684,993 (Column 7, line D9a) deferred from the period April 1994 through September 1994, presented in my Final True-up testimony filed on November 14, 1994, results in the End of Period overrecovery of $14,614,551 (Column 7, line D11).

This schedule also provides a summary of the Fuel and Net Power Transactions (lines A1 through A7), kWh Sales (lines C1 through C4), Jurisdictional Fuel Revenues (line D1 through D3), the True-up and Interest calculation (lines D4 through D10) for this period, and the End of Period True-up amount (line D11).

The data for October and November 1994, columns (1) and (2), reflects the actual results of operations and the data for December 1994 through March 1995, columns (3) through (6), are based on updated estimates.

The true-up calculations follow the procedures established by this Commission as set forth on Commission Schedule A2 "Calculation of True-Up and Interest Provision" filed in this proceeding in Appendix III, pages 7 through 49.

Q. Have you provided a schedule showing the variances between the Original Projections and the Estimated/Actuals?

A. Yes. Appendix III, page 4, shows Estimated/Actual fuel costs and revenues compared to the original estimates for the October 1994-March 1995 period.

Q. What is the variance in fuel costs for the period?

A. As shown on line A7, fuel costs on a total system basis are now projected to be $1.3 million higher than originally estimated. This variance is detailed by major cost components on page 5. The $1.3 million total system variance relating to the estimated/actual period is primarily caused by a $14.3 million increase in energy cost of economy purchases, offset by a $6.4 million decrease in energy payments to qualifying facilities, a $4.5 million decrease in the cost of purchased power and a $4.1 million decrease in the fuel cost of system net generation.

Q. What is the variance in retail (jurisdictional) Fuel Cost Recovery

revenues for the period?

A. As shown on Page 4, line D1b, jurisdictional fuel revenues, net of revenue taxes, are now projected to be $20.8 million higher than originally estimated. This increase is primarily due to higher jurisdictional kWh sales. Jurisdictional sales are now estimated to be 1,377,146,127 kWh (4.13%) higher than originally forecasted.

Q. Have you provided a schedule explaining the reasons for these variances?

A. Yes. Appendix III, pages 5 and 6, contain a more detailed analysis of the cost variances with a corresponding explanation for variances deemed material.

CAPACITY PAYMENT RECOVERY CLAUSE

Q. Please describe Page 3 of Appendix IV.

A. Page 3 of Appendix IV provides a summary of the requested capacity payments for the projected period of April 1995 through September 1995. Total recoverable capacity payments amount to $144,171,942 and include payments of $113,551,146 to non-cogenerators and payments of $76,913,075 to cogenerators. This amount is offset by revenues from capacity sales of $953,840, $28,472,796 of jurisdictional capacity related payments included in

Base Rates and the net overrecovery of $15,122,583 reflected on line 8. The net overrecovery of $15,122,583 includes the final overrecovery of $2,159,836 for the April 1994 through September 1994 period plus the estimated/actual overrecovery of $12,962,747 for the October 1994 through March 1995 period.

Q. Please describe Page 4 of Appendix IV.

A. Page 4 of Appendix IV calculates the allocation factors for demand and energy at generation. The demand allocation factors are calculated by determining the percentage each rate class contributes to the monthly system peaks. The energy allocators are calculated by determining the percentage each rate contributes to total kWh sales, as adjusted for losses, for each rate class.

Q. Please describe Page 5 of Appendix IV.

A. Page 5 of Appendix IV presents the calculation of the proposed Capacity Payment Recovery Clause (CCR) factors by rate class.

Q. Please explain the calculation of the CCR Estimated/Actual True-up amount you are requesting this Commission to approve.

A. Appendix IV, page 6, shows the calculation of the CCR Estimated/Actual True-up amount. The Estimated/Actual True-up for the period October 1994 through March 1995 is an overrecovery,

including interest, of $12,962,747 (Column 7, lines 14 plus 15). This amount, plus the Final True-up overrecovery of $2,159,836 (Column 7, line 17) deferred from the period April 1994 through September 1994, presented in my Final True-up testimony filed on November 14, 1994, results in the End of Period overrecovery of $15,122,583 (Column 7, line 19).

Q. Is this true-up calculation consistent with the true-up methodology used for the other cost recovery clauses?

A. Yes it is. The calculation of the true-up amount follows the procedures established by this Commission as set forth on Commission Schedule A2 "Calculation of True-Up and Interest Provision" for the Fuel Cost Recovery clause.

The resulting overrecovery of $15,122,583 has been included in the calculation of the Capacity Cost Recovery factor for the period April 1995 through September 1995.

Q. Please explain the calculation of the Interest Provision.

A. Appendix IV, page 7, shows the calculation of the interest provision and follows the same methodology used in calculating the interest provision for the other cost recovery clauses, as previously approved by this Commission.

Q. Have you provided a schedule showing the variances between the Estimated/Actuals and the Original Projections?

A. Yes. Appendix IV, page 8, shows the Estimated/Actual capacity charges and applicable revenues compared to the original projections for the period.

Q. What is the variance related to capacity charges?

A. The variance related to capacity charges is a $5.7 million decrease. This variance is primarily due to a $4.8 million decrease in Unit Power (UPS) Capacity Charges. This decrease is due to revised monthly capacity rates which are provided by Southern Company being lower than originally projected and common investment being lower than projected for the actual period.

Q. What is the variance in Capacity Cost Recovery revenues?

A. As shown on line 13, Capacity Cost Recovery revenues, net of revenue taxes, are now estimated to be $6.8 million higher than originally projected. This increase is primarily due to higher jurisdictional kWh sales. Jurisdictional sales are now estimated to be 1,377,146,127 kWh (4.13%) higher than originally forecasted.

OIL BACKOUT COST RECOVERY CLAUSE (OB)

Q. Please explain the calculation of the OB Factor you are requesting this Commission to approve.

A. Appendix V, page 3, shows the derivation of the OB Factor of .012 cents per kWh requested for the projected period April 1995 through September 1995. This Factor represents the $4,246,954 in projected costs divided by the total kWh sales projected for the period, plus the Estimated/Actual End of Period underrecovery of $515,929 for the period October 1994 through March 1995, divided by the retail kWh sales projected for the period April 1995 through September 1995. The resulting factor was then multiplied by the Revenue Tax Factor to arrive at the OB Factor for the period. Both the Revenue Tax Factor and the kWh sales are the same as those used in our Fuel Cost Recovery Clause included in this filing.

Q. What are the projected costs requested for recovery through the OB Factor for the period April 1995 through September 1995?

A. Appendix V, page 4, reflects the total projected costs requested for recovery for the period. These costs consist solely of the 500 kV Transmission Line Project (Project) revenue requirements, which total $4,246,954 for the projected period.

As detailed on page 4, the Project revenue requirements include a return on investment, taxes other than income taxes, income taxes,

and O&M expenses. No depreciation is included since the capital investment in the 500 kV line was fully depreciated in October 1989. A detailed description of the methodology used to calculate the revenue requirements of the Project was included in E.L. Hoffman's testimony, Document No. 1 for the February 1983 hearing.

Q. Have you also presented the Estimated/Actual costs for the period October 1994 through March 1995?

A. Yes, Appendix V, page 6, shows the components of the $4,874,070 Estimated/Actual Project revenue requirements requested for the period. It contains similar information as that described in the previous paragraph, except it reflects two months actual data and four months updated estimates.

Q. What is the purpose of the schedules showing kWh sales?

A. The purpose of the schedules showing kWh sales on pages 5 and 7, is to show the calculation of the monthly percentage of retail (jurisdictional) kWh sales to total kWh sales, for the projected and Estimate/Actual periods respectively. These monthly percentages (jurisdictional factor) are used to allocate costs between retail and wholesale customers. The kWh sales reflected on these schedules are consistent with the kWh sales shown in the FCR and CCR schedules.

Q. Please explain the calculation of the OB Estimated/Actual True-up amount you are requesting this Commission to approve.

A. Appendix V, page 8, shows the calculation of the OB Estimated/Actual True-up amount. The Estimated/Actual True-up for OB is an underrecovery, including interest, of $527,531 (Column 9, lines 7 plus 8). This amount, when combined with the Final True-up overrecovery of $11,602 (Column 9, line 10) deferred from the period April 1994 through September 1994, presented in my Final True-up testimony filed on November 14, 1994, results in the End of Period underrecovery of $515,929 (Column 9, line 12).

Q. Please explain the calculation of the interest provision.

A. Appendix V, page 9, shows the calculation of the interest provision for the period October 1994 through March 1995 and is consistent with the procedures used in calculating the interest for the FCR and CCR clauses. The interest owed by FPL as a result of net overrecoveries during the period is $991 as shown on line 10.

Q. Have you provided a schedule showing the variances between Estimated/Actuals and the Original Projections?

A. Yes. Appendix V, page 10, entitled "Calculation of Estimated/Actual True-up Variances", shows the estimated/actual Oil Backout costs

and revenues compared to the original projections for the period October 1994 through March 1995.

Q **Have you provided a schedule explaining the reasons for these variances?**

A Yes. Pages 11 and 12, of Appendix V, provide a more detailed analysis of the variances with corresponding explanations for Revenue Requirements, and Jurisdictional kWh Sales, respectively.

Q. **What effective date is the Company requesting for the new factors?**

A. The Company is requesting that the new factors become effective with customer billings on cycle day 3 of April 1995 and continue through Customer billings on cycle day 2 of September 1995. This will provide for 6 months of billing on these factors for all our customers.

Q. **What will be the charge for a Residential customer using 1,000 kWh effective April 1995?**

A. The total residential bill, excluding taxes and franchise, for 1,000 kWh will be $72.65. The base bill for 1,000 residential kWh is $47.38, the fuel cost recovery charge from Schedule E1, Page 4 of Appendix II for a residential customer is $17.64, the Conservation charge is $2.52, the Oil Backout charge is $.12, the Capacity

Recovery charge is $4.15, the Environmental Cost Recovery charge is $.10 and the Gross Receipt Tax is $.74. A Residential Bill Comparison (1000kWh) is presented in Schedule E10, Page 30 of Appendix II.

Q. Does this conclude your testimony.

A. Yes, it does.

BY MR. CHILDS:

Q Mr. Birkett, would you please summarize your direct testimony.

A In my direct testimony I have presented for Commission review and approval the fuel cost recovery clause factor through the April to September 1995 period, including the estimated actual true-up for the October '94 through March 1995 period.

In addition, my testimony presents for Commission approval FPL's proposal to change the method of allocating fuel costs to the various customer classes.

The current recovery methodology assigns the same average cost to all kilowatt-hours as if they had an equal impact on FPL's fuel cost. The proposed methodology recognizes the fact that system fuel costs are not the same in all hours of the day, nor on all days of the year. This is due to differences in the levels of generation from hour to hour, and then the cost for fuel and the efficiencies of generating units. The proposed methodology addresses differences in cost and class kilowatt-hour usage between hours and results in a more appropriate allocation of cost between customer classes.

FPL is also requesting recovery of

$2.8 million of equipment modification to some of its generating units to enable these facilities to operate using a less expensive grade of fuel oil.

Our request for recovery is based on the criteria established by the Commission in Docket 850001, Order No. 14546, which was issued on July 8th, 1995, regarding charges which are appropriately included in the calculation of fuel expense.

Now, these equipment modifications will yield fuel savings of approximately $8.4 million in the projected period and a total of $81.3 million from 1995 through 1999.

Although these costs are of a type which would typically be recovered through base rates, the Commission, in Order 14546, provided further review and approval on a case-by-case basis of fuel cost recovery for expenses which were not recognized, nor anticipated, in the cost levels used to determine current base rates, and which if expended would result in fuel savings to customers.

I believe that these expenditures are of the type the Commission anticipated being recovered through the fuel cost recovery clause in that order.

This concludes may summary.

MR. CHILDS: We tender Mr. Birkett for cross

examination.

COMMISSIONER DEASON: Questions for Mr. Birkett? Mr. Kaufmann.

CROSS EXAMINATION

BY MR. KAUFMANN:

Q Good morning, Mr. Birkett.

A Good morning.

Q I'd like to ask you a couple of questions regarding the modifications to the plants that you discuss in your direct testimony.

How long will ratepayers receive benefits from these modifications?

A While I believe Mr. Silva can address that more fully, FPL has provided projections of savings for the next five years, though we believe that savings will exist beyond that period.

Q Do you know how far beyond that period they will continue?

A No, I do not. You'd have to ask Mr. Silva.

Q All right. Let me show you a document which was turned over to Florida Steel as a response to Florida Steel's First Set of Interrogatories, Interrogatory No. 5.

COMMISSIONER DEASON: Mr. Kaufmann, while you're speaking you need to be at a microphone so the

court reporter can pick it up. (Hands document to witness.)

MR. KAUFMANN: Commissioners, for another identification number, do I just take the next one? That would be 39?

COMMISSIONER DEASON: Yes. Do you wish this identified?

MR. KAUFMANN: Yes, please.

COMMISSIONER DEASON: It will be identified as Exhibit No. 39.

(Exhibit No. 39 marked for identification.)

Q (By Mr. Kaufmann) Mr. Birkett, do you see that that response answers a request regarding the remaining useful life for each plant listed in FPL Appendix 1, Page 8 of the January 17th, 1995 filing; is that correct?

A Yes, it is.

Q And was this response sponsored by you?

A I believe it was, yes.

MR. KAUFMANN: At this time I'd ask for admission of Exhibit No. 39, please.

COMMISSIONER DEASON: It's our custom that at the conclusion of the witness' testimony we'll move all exhibits and you'll be given that opportunity at the conclusion of this witness' testimony to move that

exhibit.

MR. KAUFMANN: Thank you.

Q (By Mr. Kaufmann) Is it correct from reading this response, Mr. Birkett, that the minimum remaining life of any of these units is 9.4 years?

A Yes. That is correct.

Q And the maximum listed here would be for Canaveral Unit 1, which is 20 years?

A Yes.

MR. KAUFMANN: Thank you.

COMMISSIONER DEASON: Any further questions?

MR. KAUFMANN: No more questions.

CROSS EXAMINATION

BY MR. HOWE:

Q Hello, Mr. Birkett.

A Good morning.

Q If Florida Power and Light were to include the cost of this $2.8 million modification in its calculation of its earned rate of return for surveillance report purposes, would the Company still earn within its authorized return on equity range?

A I haven't seen that calculation so I could not answer that question.

Q What's the next generating plant addition in FPL's plans currently?

A I do not know. I have not seen the plan.

Q Whatever they are planning on building in the future, do you believe they will take the cost of fuel into consideration?

A Yes, FPL takes into account the entire cost of the unit when determining which unit to build.

Q Would you agree the cost of fuel would be a significant consideration in determining what the next generation addition will be on Florida Power and Light's system?

A I don't know that I could say which costs would be highest relative in significance, but fuel cost would be one consideration.

Q In your estimation, would it be reasonable if Florida Power and Light were to bring on a generating unit, the single purpose of which was to reduce its overall fuel cost, would it be reasonable for Florida Power and Light to seek recovery through the fuel cost recovery clause of all of its investment in that plant addition?

A First, you're stating a premise which I don't think you know is possible.

FPL has no plans to bring on a unit which would be brought on solely to reduce fuel costs, though I would not foresee requesting to recover that unit

through the fuel clause.

Q Does Florida Power and Light have any similar plant modifications its made on generating units for the specific purpose of reducing fuel cost for which it has not sought recovery through the fuel clause?

A I'm not aware of any such modifications.

MR. HOWE: I have no further questions.

COMMISSIONER DEASON: Mr. McWhirter.

CROSS EXAMINATION

BY MR. McWHIRTER:

Q Mr. Birkett, as I understand it, Mr. Silva, is the one that will explain to us what these modifications are, and you're just the man that translates that into economic terms; is that correct?

A Yes. I translate it into the rates, and really I'm here also to explain why it's appropriate to recover them through the fuel clause.

Q Well, the rationale for the recovery is that these modifications result in a lower fuel cost, and as a result you want to pass it through the fuel cost recovery clause rather than base rates; is that the theory?

A Yes. It's our belief that the Commission envisioned costs of this type being recovered through the fuel clause, although, I believe as I said in my

testimony, we're not aware of any specific precedents. It is our belief that these would be appropriate pursuant to that order.

Q Well, you referred to Order 14546, and I presume it's Item 10 under that order that is the basis for your recovery?

A Yes, it is.

Q Now, the total cost is $2.8 million rounded. Is that the total cost of construction or the annual carrying costs on these modifications for one year?

A That is the total cost of construction and that is as an expense amount. There is no carrying cost in there.

Q What was the impetus to -- although the savings will be realized over a number of years -- to put the total cost in the first year?

A Well, we looked at expensing the costs in the current period versus, you know, spreading those over time with the carrying costs associated with them, and we found that expensing them resulted in a total lower cost to our customers, because the carrying cost would actually increase it if applied over time. And that combined with the fact that there were fuel savings in the current period significantly in excess of those expenses led us to believe that it would be appropriate

to recover them all at once in the current period.

Q For purposes of Florida Power and Light's 1994 tax return, were these costs expensed or were they capitalized?

A I could not tell you that, sir.

Q Mr. Birkett, I'd like now to change your attention to Exhibit 13, I believe it's BTB No. 6. On Page 4 of that exhibit you calculate the interest on the overrecovery amounts for the period of October '94 through March of '95. I guess it's an earlier period, the $20 million. And on Line 8 of Page 4 you show that interest to be $364,000 -- $364,888 that you're going to pay to customers this summer for overrecoveries last winter. Is that see essentially what is happening?

A Yes, it is.

Q What's that interest rate and how is it calculated?

A That interest rate is calculated pursuant to Commission Orders. It is the commercial paper rate.

Q I understand it's the commercial paper rate but what rate did you precisely use? I just devided $20 million into 364,000 and came out to about 1.7% interest. But obviously that's inaccurate.

A I would have to look back through the work papers. But the rate is actually applied on a monthly

basis to the net over- and underrecovery at that time, so if you're looking at --

Q Is the starting period from the moment the money is collected, or is it some other time?

A It is looked at at the end of each month. The balance of the over- and underrecovery at the end of each month. So over the course of a six-month period there could be offsetting over- and underrecoveries which would affect the total amount of interest paid.

Q As I understand it, the commercial paper rate is in the vicinity of 6% simple annual interest at this juncture?

A That's consistent with my understanding. It has been fluctuating some.

Q Is fluctuation on a monthly, daily or what other frequency period?

A Well, we look at the rate on a monthly basis, and I believe it has been fluctuating over the last year on a regular basis as the market has been changing.

Q You look at it on a monthly basis and then, is that determination of the rate in any fashion submitted to the Commission Staff for approval or disapproval?

A I'm not aware of whether or not it is submitted. I believe we use a commonly accepted source for that rate.

Q At the present time what is Florida Power and Light's authorized overall rate of return?

A I'm not -- I don't know what our authorized overall rate of return is, because there are components there of various debt and equity. I'm really just familiar with the authorized return on equity.

Q That return was established back in your last rate case in 1986 and then it has been modified subsequent on that time?

A Which return, sir?

Q Beg your pardon?

A Which return are you referring to?

Q The overall rate of return in your last general rate case.

A It has been modified as the Commission has modified the allowed return on equity.

Q Have all aspects of the return been modified or only the return on equity?

A Only the return on equity has been modified.

Q What, to your recollection, if you'll refresh mine -- what's the rationale for paying customers at the commercial paper rate whereas customers pay you at your overall rate of return, which, to the best of my recollection, is somewhere in the range of about 9.7% now or something in that area.

MR. CHILDS: Wait a minute, I will object to that premise. I don't think that that's a correct characterization to say the rationale -- what's the rationale and then assume that the commercial paper rate is paid to customers and overall return is paid to the company. The Commission has a procedure, and the commercial paper rate is paid to both the Company and the customer, depending on whether there is an over- or underrecovery.

COMMISSIONER DEASON: Mr. McWhirter.

MR. McWHIRTER: Is he objecting to the form of the question, Your Honor?

COMMISSIONER DEASON: I think he's objecting to your characterization within your question that there is somehow a different rate of interest paid to the company versus what is paid to the customers when there is an over- or an underrecovery for fuel purposes.

MR. McWHIRTER: If there is --

COMMISSIONER DEASON: I understand your question; you're mixing fuel concepts here with base rate concepts.

MR. McWHIRTER: Oranges and apples being mixed.

COMMISSIONER DEASON: Right. And perhaps you need to clarify your question, exactly what you're

speaking to.

MR. McWHIRTER: I accept the objection and withdraw the question.

Q (By Mr. McWhirter) Would it be fair to assume, for purposes of general illustration, at the present time your authorized return on base rates is somewhere between 9.5 and 10%?

A I will assume that, subject to check.

Q All right, sir. Now, with respect to overrecoveries and underrecoveries, if there is an underrecovery, you charge the customers for that underrecovery and you add a commercial paper rate to that and that currently is in the range of 6%; is that correct?

A Yes, that is correct.

Q And if there is an overrecovery, you pay the customers the commercial paper rate, which is in the rate of 6%; is that correct?

A Yes, it is.

Q Now, can you explain to me the rationale as to why, for purposes of fuel underrecovery and fuel overrecovery, the commercial paper rate is used rather than the Company's authorized return?

A Well, the commercial paper rate is used, first of all, because that is what the Commission has

established for this docket. However, it is also appropriate to use that because we are dealing here -- you've got two different rates because you're dealing with two different types of cost. The fuel cost that goes through the the clause and over- and underrecoveries represent expenses. They do not affect the bottom line of FPL and, really, the commercial paper rate is meant to keep both the customers and the Company whole for this process. The overall rate of return is meant to allow the Company to recover the cost of financing the rate base of the Company, which includes earning a fair return for the stockholders who have made an investment in equity. So they are two completely different issues.

Q Would you summarize that a little bit for me and explain once again -- you say this is an interest rate on expenses, do I understand you to be saying that and, therefore, it should be less than the interest rate on capital investment?

A I guess what I'm saying is that the expenses are -- they are subject to an interest rate for over- and underrecoveries, which reflects the current cost of money in the market, so that everybody is held on an equal basis; whereas, the base cost, the capital cost of the Company is -- to that is applied a return which

reflects the cost to the company of providing that base, so it is an appropriate -- it's an appropriate rate and an appropriate calculation for the two different types of cost.

Q What safeguards are in place, since you're dealing with projected rates, to ensure that Florida Power and Light doesn't always establish an overrecovery so it would be able to get low cost money for a short period of time?

A Well, first of all, I don't think there's any incentive there for FPL to overrecover because that commercial paper rate is its low cost money, but that is intended to be, and really is, you know, the rate, in essence what the Company would have to pay in the market. So FPL is, I believe, truly indifferent. However, there are safeguards there to ensure that, you know, the -- you know that the system works.

I mean the Commission, when they established the fuel cost recovery process, recognized that there was going to be some volatility particularly due to the fact that fuel prices will change over the course of the period. And in that there are the filing of monthly A Schedules so that the Commission can monitor on a monthly basis what is happening. You know, the true-up provision itself with the interest paid for over- and

underrecoveries, and there is what we call, you know, the midcourse correction process, where if we believe that at any time the over- or underrecovery is going to be 10% or more of the total fuel cost for the period, we are to notify the Commission and propose appropriate action to take. And that way I think both the Company and the customers are suitably protected in this process.

Q The protections that are provided are regulatory protections in the form of Commission oversight as opposed to market-oriented incentives for you not to -- is there any business reason why it would not be advantageous to you to get low cost short-term money in this fashion rather than going to the bank?

A Yes. We have a very good business reason right now in that our customers are telling us they don't want our rates to fluctuate. And we're doing our best to come in with the most appropriate projection so we set the most appropriate price to avoid the over- and underrecoveries which cause swings in price from one period to the next. We're very sensitive to what our customers are telling us about needing to be able to budget for, you know, their energy costs, and you know, obviously electricity, you know, is a big part of our customers' energy cost and we're doing our best to avoid

those fluctuations from one period to the next.

Q You're familiar with the conservation and oil back out and the environmental and capacity pass through dockets that are considered conjointly with this proceeding.

Did you have underrecoveries in any or all of those other dockets?

A I would have to go back and check those filings.

MR. CHILDS: Commissioner, I'm having some difficulty in understanding to what issue this line of questioning relates. I realize that it's somewhat relaxed and I haven't objected to the line of questioning, but I do not understand it.

As to rationale for the interest rate, etcetera, this is a matter that the Commission addressed in detail when it first established the clause. And it made a selection and we have been using that for over ten years, and, therefore, I don't understand the line of questioning.

COMMISSIONER DEASON: Mr. McWhirter, there's been an objection made as to the relevancy of your questions and the question as to which issue -- if they are relevant, to which issue they pertain.

MR. McWHIRTER: Mr. Chairman, the issue in 01

is -- there are two issues: one is what is the amount that the customer should be required to pay for the fuel cost recovery, and that amount of money incorporates a variety of component parts.

One of the component parts in the amount of that recovery is the interest that is paid to consumers for the overrecoveries during the prior period. In this docket, and in the other dockets as well, I think we'll find that there are over- and underrecoveries, and it may work out perfectly satisfactory, but my concern is that whether or not it's up to the Commission alone to protect the consumers against a habit and a custom of overrecoveries, or whether there are market incentives in place that would encourage the Company not to overrecover from time to time.

COMMISSIONER DEASON: I thoroughly understand that, but my specific question is: Which issues in the Prehearing Order, which are being contested, do your questions relate?

MR. McWHIRTER: It's a total amount of fuel cost factor. Let me see if I can quickly find that issue.

COMMISSIONER DEASON: Mr. McWhirter, that issue has been stipulated to the extent it is a fallout calculation. And to the extent there are other issues,

namely 10A, 10 B, 10C, 23A which result in a change in calculations, those would automatically be factored into the final determination.

I need to know if your questions in your mind relate to one of the four issues, 10A, 10B, 10C or 23A.

MR. McWHIRTER: With respect to 10C there's an allegation that there will be a $65 million overrecovery, as I recall the allegation, from Florida Steel. And if that's the case, then at the end of the the term that $65 million will be refunded to the customers, the winter consumers of Florida Power and Light, and the question is when that is returned, will there be a neutral impact or will the interest charge placed upon that $65 million be less than the market rate of interest?

COMMISSIONER DEASON: I'm going to ask you then to -- if your questions relate to 10C and the estimated gas prices, and whether those have been reasonably estimated, and if there's an impact with interest rates on that estimation, I'm going to allow you to pursue your questions. But I need -- your question is more directly related to the issue which is specifically identified as 10C.

MR. McWHIRTER: All right, sir.

COMMISSIONER DEASON: If this is all predicate

leading to that, that's fine. But I'm going to ask you to try to make your point as quickly as possible.

Q (By Mr. McWhirter) Assuming for purposes of my question, Mr. Birkett, that there is a $65 million overrecovery during the summer period, am I correct that that $65 million would be refunded to the customers who are your customers during the winter period?

A Assuming that was the case, to which obviously we disagree, yes, that would be recovered along with any other over- and underrecoveries, you know, in the following years.

Q And that $65 million, assuming that it were an overrecovery, would bear interest at the then active commercial paper rate?

A Yes, it would.

Q Mr. Birkett, am I correct in assuming that your fuel costs that are being passed along during this period, are the lowest they have been in a number of periods?

A I'm not familiar with all of the details of the fuel cost that's in there, but I know we have been seeing some reductions in fuel costs.

Q I'll ask you this, subject to check, but it looks to me like the fuel cost that you're proposing in this period is probably lower than it has been any time

in the last ten years. Is that a fair assumption or am I totally in error on that?

MR. CHILDS: I'm going to object again. I don't see how this relates to the matters that are still at issue, or how it relates to Mr. Birkett's direct testimony.

COMMISSIONER DEASON: Mr. McWhirter.

MR. McWHIRTER: I will withdraw the question and that's the last question I have.

COMMISSIONER DEASON: Staff.

CROSS EXAMINATION

BY MS. BROWN:

Q Mr. Birkett, you've been asked questions on two of the issues that are outstanding for the Commission's decision today, 10A -- or three actually, 10A, 10B and 10C. I just want to make it clear that we're going to ask the majority of our questions on 10A, but I have a couple of follow-up questions from some of the cross that you have had with respect to the other issues.

A Okay.

Q First of all, with respect to Issue 10B, which is, is it appropriate for Florida Power and Light Company to recover $274,502 for modifications made to generating units through the fuel and purchased power

cost recovery clause? You were asked questions about Order 14546, do you remember that?

A Yes, I do.

Q I think you stated to Mr. McWhirter, or maybe Mr. Howe -- Mr. McWhirter, I think, that you were relying on No. 10 on Page 5 of that order?

A I believe that's what I said. Yes, I have the order before me.

Q Do you? Would you turn to Page 5, please, and do you see the paragraph in the middle of the page that begins right after the number "4". Begins "While it is."

A Yes, I see that.

Q Would you read that, please?

A "While it is the Commission's intent in this order to establish comprehensive guidelines for the treatment of fossil fuel related costs, it is recognized that certain unanticipated costs may have been overlooked. If any utility incurs, or will incur, a fossil fuel related cost which was not addressed in this order and the utility seeks to recover such costs through its fuel adjustment clause, the utility should present testimony justifying such recovery in an appropriate fuel adjustment hearing."

Q That's what you're doing here, isn't it?

A Yes, it is.

Q Is it your understanding, Mr. Birkett, that the methodology for calculating the interest associated with over- and underrecovery was first established when the fuel clause itself was established, around 1980 to 1981?

A Yes, that is my understanding.

Q All right. Now we'll switch to our questions on Issue 10A, "Is Florida Power and Light's proposed new methodology for allocating fuel costs to the various customer classes appropriate?"

You've stated in your testimony that the proposed fuel allocation methodology reflects the fact that each rate class does not comprise the same proportion of system kilowatt-hour sales in every hour but that the proportion changes from hour to hour; is that correct?

A Yes.

Q I believe you also state in your testimony that Florida Power and Light's proposed allocation of fuel costs results in a more appropriate allocation of cost between customer classes, correct?

A Yes.

Q When you speak of allocating costs, you are referring to the allocation of fuel costs, correct?

A Yes, I am.

Q You are not proposing to change the allocation of production plant costs at this time?

A No, we are not.

Q You state in your testimony that Florida Power and Light's fuel costs per kilowatt-hour will increase and decrease as the system load increases and decreases, correct?

A Yes. That's the result of economic dispatch.

Q Right. By the term "economic dispatch" you are referring to the principle of calling or dispatching the units that are the most economical first to serve load; is that correct?

A Yes, it is.

Q And when you say most economical, you are referring to the operating fuel cost associated with producing kilowatt-hours and not the capital costs of the generators producing those kilowatt-hours, correct?

A Yes. We look at just the variable cost associated with just running that unit.

Q So the answer is yes?

A Yes.

Q Now, in your deposition, Mr. Birkett -- do you have that deposition with you by any chance?

A No, I do not.

Q Okay. We only have one copy. Thank you Mr. Kaufmann. (Hands document to witness.)

Q In that deposition, Mr. Birkett, we established that there is a mix of generating units on Florida Power and Light's system that is designed to fulfill different needs, system needs, at different times, correct? I can direct you to Page 9 of your deposition, Lines 15 through 18.

A Yes.

Q Now, we made a simple comparison in the deposition with respect to baseload units and peaking units.

You said in your deposition that what are commonly called baseload units are designed to operate over more hours, and what are commonly called peaking units are not intended to operate in the same manner; is that correct?

A Yes, that's what I said. Although you know -- and I recognize I think we struggled a bit over terms and ideas in the deposition, and since I think the reason is that it's really an overly simplified view of what happens.

Q Would you explain that?

A I guess it is not uncommon for people to think that there are -- you know, baseload units have high

capital cost and low fuel cost relative to what are called peaking units, which, you know, are thought to have low capital cost and high fuel costs. Now that at one point in time might have been more clear-cut, but that really doesn't fit today and it really ignores some, I think, important factors such as the fact that fuel costs do change over time and the relative relationship of fuel costs.

There are new technologies which really are dramatically changing what we think of as baseload units versus peaking units. The units we built over time, you know, will depreciate and, in fact, a unit that was built as a baseload unit may not function that way today. Just many factors which really make that less a distinction than it might have been before.

Q That may make it less of a distinction in the future when you build new plant, correct?

A I think it makes it less of a distinction today as well.

Q But you did, in your deposition, agree generally that a baseload plant typically has higher capital costs but the fuel costs are cheaper, did you not?

A Yes, I did.

Q And you also agreed that a peaking plant costs

less to build but the fuel costs are higher, did you not?

A Yes, I did.

Q Okay. Now back to economic dispatch for a minute. Under economic dispatch, Florida Power and Light would typically generally dispatch the baseload unit first because it has lower fuel costs, correct?

A I guess that is correct, and that is the definition. I mean, you're defining baseload unit by talking about its economic dispatch. A unit is baseload if it is dispatched first.

Q And it is dispatched first because it has lower fuel costs, correct? Irrespective of the fact that it may have had higher capital costs, correct?

A Yes, that's correct. We look simply at the variable cost when doing the dispatching.

Q And that is the same principle that you apply when you dispatch peaker units as well, is it not?

A Yes, all units are dispatched that way.

Q And peaker units are dispatched last because they have higher fuel costs, correct?

A Yes. I would agree that units with higher fuel cost are dispatched less. They may or may not be units which were initially designed and built to be peakers.

Q And they are dispatched last irrespective of the fact that they had lower capital costs, correct?

A That is correct, yes.

Q Okay. So would it be fair to say that part of the reason why there is even a need for economic dispatch is because of the mix of generating units on your system, baseloads and peakers and intermediate?

MR. CHILDS: Would you say that again, I'm sorry.

Q Would it be fair to say that part of the reason why there is even a need for economic dispatch is because of the mix of generating units on Florida Power and Light's system?

A I think I know what you're trying to say.

Q Well, just answer the question.

A The reason for economic dispatch is even within one type of unit there are differences in fuel costs, and we're trying to get the least expensive unit on any given time. And, you know, the units you dispatch first are referred to as baseload units. The units that are dispatched only to serve -- or typically only to serve the peaks are referred to as peaking units.

The link is between the variable cost of the units, not between the designation between baseload and

peaking load units; that's where I'm having the problem with what you are saying, that's all.

Q Okay. Under Florida Power and Light's proposed fuel allocation methodology, as I understand it a rate class that contributes more to the peaking system load periods will be assigned relatively more fuel costs because Florida Power and Light is having to dispatch the peaking units or the less economical units at that time; is that correct?

A Yes. Every class is assigned costs based -- every class that is on in that hour will be assigned costs reflecting its proportion of the load in that hour.

Q But relatively speaking, the classes that contribute more to the peak will be assigned relatively more fuel costs.

A Yes. FPL believes that's appropriate.

Q Now, for a minute I want to discuss how production plant costs were allocated in Florida Power and Light's last full requirements rate case.

With the exception of certain plant costs associated with the St. Lucie nuclear units, nearly all of Florida Power and Light's demand-related production plant costs were allocated using the 12 CP and one-thirteenth average demand method; is that correct?

A Yes, it is.

Q And isn't this also the method that is currently used to allocate costs to rate classes through the capacity cost recovery clause?

A Yes, for that reason because it is the method used in base rates.

Q Under this method, would you agree that approximately 92% of the plant costs that are allocated to -- are allocated to the class based on each class' contribution to the 12 monthly system peaks?

A Yes, that's correct.

Q Okay. Now, we've been talking earlier about different types of generating units, and what I want to know is when Florida Power and Light uses the 12 CP, one-thirteenth demand allocator to assign plant cost responsibility to the rate classes, does it use the same allocator that is supplied to peaking plants, is that also applied to baseload plants?

A Yes. Each class is assigned responsibility for all of the plants based upon their contribution to our peaks.

Q So in essence, each rate class receives a portion of Florida Power and Light's peaking plant costs and a portion of the baseload plant costs regardless of the fact that some classes contribute relatively more to

the higher load periods than to the lower load periods, correct?

MR. CHILDS: Wait a minute. That's a long one.

MS. BROWN: Do you want me to break it up?

MR. CHILDS: Yeah. I'm not sure whether it's an assumption or it's a premise in the first part of that question.

Q (By Ms. Brown) In essence, does each rate class receive a portion of Florida Power and Light's peaking plant costs and a portion of baseload plant costs regardless of whether they contribute relatively more to higher load periods?

A I don't know if I can answer that yes or no. What I will say is we only look at the 12 monthly peaks when allocating those plant costs, so they are allocated responsibility based upon their contribution to the peaks that cause the costs, and we don't take into account what they might do in the other hours for the allocation of the capacity cost.

Q But you have agreed that you use the same allocator --

A For all types of plant, subject to the exception you discussed earlier.

Q Right. So unlike this proposed fuel

allocation method that you're proposing today, which attempts to allocate fuel costs based on the class' contribution to the system load in any given hour, the method used to allocate generating unit costs does not attempt to make the allocation on a hour-by-hour basis; is that correct?

A Yes, properly so. I think the two methods are consistent.

Q Today, currently, all customers pay an average fuel factor; is that correct?

A Yes, all kilowatt-hours are treated the same regardless of when they are used.

MS. BROWN: Could we have just one second, Commissioner, then I think we'll be about done.

COMMISSIONER DEASON: Why don't we go ahead and take ten minutes.

MS. BROWN: Thank you.

(Brief recess.)

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COMMISSIONER DEASON: Call the hearing back to order. Ms. Brown.

MS. BROWN: We have no further questions for Mr. Birkett.

COMMISSIONER DEASON: Very well. Commissioners, questions? Redirect.

MR. CHILDS: Yes, I have some.

REDIRECT EXAMINATION

BY MR. CHILDS:

Q Mr. Birkett, do you have a copy of the Prehearing Order before you? I want to refer to Issue 10B, which is on Page 14.

A I have a copy of that and have that in front of me now.

Q Would you look to the statement of the issue on the second line where the number $2,754,502 is identified?

A Yes.

Q Is that an estimated number in that the total costs are not yet final?

A Yes, it is.

Q You were asked a question by Staff to the effect of whether fuel costs increase and decrease as load increases and decrease. Do you recall that question?

A Yes, I do.

Q And I believe you answered yes. Do you recall answering yes?

A Yes.

Q Do you know whether the average cost of fuel increases as load increases?

A Yes, that would follow, that as you bring more expensive units on line, because the load is going up, that those more expensive units would raise the average fuel cost in that hour.

Q So then the total cost goes up as load goes up, the average goes up, and does the marginal cost of fuel go up as well, if you know?

A Yes, it does.

Q All right. As to the discussion about whether baseload units have higher capital costs and lower fuel costs with regard to peaking units, you were asked a number of questions in that area, do you recall them?

A Yes, sir, I do.

Q Over time peaking units and baseload units are depreciated, are they not?

A Yes, they are.

Q After some period of time it is possible for the remaining net investment in a baseload unit to be substantially less than it was when it was first installed; is that correct?

A Yes, that is correct.

Q And when we talk about a baseload unit having a higher capital cost than a peaking unit, is that true throughout the life of the unit?

A No, it is not because of what you referred to

with the depreciation.

Q You were asked questions about the allocation of capacity costs to customer classes. Do you know how nonfuel O&M costs for generating units are allocated to customer classes?

A Are you referring to base rates?

Q Yes, base rates.

A Yes. Using the methodology approved by the Commission they are allocated to each class on an average basis just as fuel is now. And not only the time of use, unfortunately, but also whether they are coming from baseload or peaking units.

Q Okay. You were asked a question by the Staff of whether you would agree that 92% of the plant costs were allocated to customer classes based upon the customer class contribution to the 12 monthly peaks. Do you recall that?

A Yes, I do.

Q Would it be correct then when you answered yes that you were talking about the capital cost as opposed to the nonfuel O&M cost?

A Yes, that's correct.

Q Now, as to the allocation of the capital cost, each customer class that has demand at time of the peak which is used to measure allocation, is allocated

responsibility in accordance with its contribution to the peak?

A Yes, that's correct.

Q That's a concept that this Commission has used for years, is it not?

A Yes, it has.

Q All right. Now, when that cost is allocated to each customer class, is it correct to conclude that it is an allocation of the costs of each and every generating unit that the Company has operating at that time, whether peak or baseload?

A Yes, to the extent it's really just an allocation of the total cost, so, you know, each unit isn't individually allocated, we just take the total cost and allocate it to the classes based upon their peak contribution.

Q Okay. But the allocation is in proportion to the class contribution to peak; is that correct?

A Yes, based on the fact that it is the peaks that cause us to build the plants in the first place.

Q So hypothetically if a class contributed to 65% of the peak demand, then that class would be allocated 65% of the total capital cost for production plant?

A Yes, properly so.

Q Okay. And your total fuel cost is higher during times of peak that we just covered?

A Yes.

Q And yet currently the fuel cost is allocated under the fuel adjustment procedure on the basis of average; is that right?

A Yes. That is the problem we had with the current methodology, that it ignores the fact that fuel costs do differ from one hour to the next, and treats all hour, all kilowatt-hours the same regardless of the cost and the individual hour. And I think that is contrary to the way that costs are incurred, and in some respects it might even be considered contrary to what the Commission, you know, has done in the past with looking at the PURPA time-of-use standards in that it doesn't -- the methodology, while it was simple, doesn't properly reflect the way the costs are incurred.

Each class is not equally responsible for FPL's fuel costs in relationship to its percentage of the sales over the six-month period. A class could be 70% of the total sales for the period, but contribute much more to our peak hours than they do to the off-peak periods, and it's not appropriate, we believe, to charge them just that flat percentage of all fuel costs, when, in fact, they cause us to incur more of the more

expensive fuel costs than do other classes.

Q Under the methodology for allocating fuel costs that you are proposing, does that methodology include recognition of both peak hours and off-peak hours?

A Yes. The methodology includes recognition of every hour. It looks at each class' contribution and its propositional contribution to every hour during the period, and allocates costs according to -- as a proportionate contribution to each hour, so it properly reflects classes that contribute more to the high load hours and less to the low load hours.

Q And is it true that it does the reverse of that, too? In other words, that if a class contributes relatively more to the off-peak consumption than to the on-peak consumption, then that class is to be charged less for fuel?

A Yes. Those classes as well, and in particular the clear example to me are the streetlighting classes. They contribute far more to the least expensive hours on the system, the very late night hours, than they do to, you know -- the daytime hours, yet they are allocated based on an average on-peak/off-peak as well. I think the methodology -- that's the most striking example, I guess, in what we've got in that the methodology

reflects that the streetlights are on primarily during the lowest cost period, and as a result they will see a reduction from current fuel factors reflecting that.

Q Do you know whether the method that you are proposing for allocating fuel costs is inconsistent with the way generating plant costs are allocated to customer classes?

A No. As I believe I told Ms. Brown, I think they are exactly consistent.

Q All right.

A Both reflect the causation of the cost, the baseload costs are allocated based on each customer class' contribution to the peak loads that cause us to build the plants. Whereas our proposal for fuel cost allocation looks at each class' contribution to each hour's cost.

Now, we build baseload -- excuse me, we build plants looking at peak loads, so it's appropriate to allocate those costs that way. We burn fuel based on the load in each hour, so it's more appropriate to look at the load in each hour when allocating the fuel cost.

MR. CHILDS: All right. That's all I have.

MR. McWHIRTER: Mr. Chairman, this is a peculiar request, but in a sense, with respect to this issue, I'm on the same side as Florida Power and Light,

and I'd like to have the opportunity to ask something that would be akin to a redirect, as opposed to standard cross examination, with respect to this one issue, 10A, and I've just got a couple of questions.

MS. BROWN: Mr. Chairman, this is unusual and Staff objects to it.

COMMISSIONER DEASON: I think it is unusual and I'm going to recognize the objection and deny you that opportunity.

MR. McWHIRTER: The question relates to questions that were raised by the Staff that did not come out on his direct. So I'm essentially foreclosed from asking the question.

COMMISSIONER DEASON: That's correct. You are foreclosed. You could have presented your own witness on this issue if you wished, and you then could have engaged in redirect of your own witness. I'm not going to allow you to engage in redirect of this witness.

Exhibits.

MR. CHILDS: Mr. Commissioner, I would move -- I either can move into evidence the exhibits that this witness is sponsoring on direct or I can wait until we get finished with direct and rebuttal and move them all at one time.

COMMISSIONER DEASON: I would like to go ahead

and take care of this witness' exhibits that have not already been admitted.

MR. CHILDS: The exhibits this witness is sponsoring on direct, I believe, are BTB-5 and BTB-6. Let me get the code here.

COMMISSIONER DEASON: I believe that's Exhibits 12 and 13.

MR. CHILDS: I would move those into evidence.

COMMISSIONER DEASON: Without objection, hearing none, Exhibits 12 and 13 are admitted. Could have man I believe you have an exhibit you wish to move.

(Exhibit Nos. 12 and 13 received in evidence.)

COMMISSIONER DEASON: Mr. Kaufman, I believe you have an exhibit that you wish to move; is that correct?

MR. KAUFMANN: Yes. That would be Exhibit 39.

COMMISSIONER DEASON: Hearing no objection, Exhibit 39 is also admitted.

(Exhibit No. 39 received in evidence.)

COMMISSIONER DEASON: And I believe with that all of the -- let me ask you this, Mr. Childs, I have here that Exhibit 18 is being sponsored by Mr. Birkett as well. Is that correct?

MR. CHILDS: That is part of his rebuttal.

COMMISSIONER DEASON: That's rebuttal. We'll

wait on that until the appropriate time.

MS. BROWN: Commissioner, it's probably not necessary but Staff would ask the Commission to take official notice of Order 14546 that we passed out earlier.

COMMISSIONER DEASON: Yes. The Commission will take official notice of its own orders.

Thank you, Mr. Birkett.

MR. CHILDS: I call Mr. Silva.

COMMISSIONER DEASON: While Mr. Silva is coming to the stand, let me announce we will be taking a lunch break today. We will be breaking at approximately 11:30 and we will reconvene at 1:00.

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RENE SILVA.

was called as a witness on behalf of Florida Power and Light Company and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

CROSS EXAMINATION

BY MR. CHILDS:

Q Would you state your name and address, please?

A My name is Rene Silva. My address is 9250 West Flagler Street, Miami, Florida 33174.

Q By whom are you employed and in what capacity?

A By Florida Power and Light Company as Manager of Forcasting and Regulatory Response in the Power Generation Business Unit.

Q Mr. Silva, do you have before you a document entitled "Testimony of Rene Silva, Docket 950001-EI, January 17, 1995"?

A Yes.

Q Was this prepared by you as your direct testimony for this proceeding?

A Yes.

Q And were the documents you are sponsoring prepared by you or under your direction, supervision or control?

A Yes.

Q Do you have any changes or corrections to make to the testimony or the documents you are sponsoring?

A No.

Q Do you adopt this as your testimony?

A Yes.

MR. CHILDS: Mr. Commissioner, I'd ask that the prepared testimony of Mr. Silva be inserted into the record as though read.

COMMISSIONER DEASON: Without objection. It will be so inserted.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF R. SILVA

DOCKET NO. 940001-EI

NOVEMBER 14, 1994

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

A. My name is Rene Silva and my business address is 9250 W. Flagler Street, Miami, Florida 33174.

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

A. I am the Manager of Forecasting and Regulatory Response for the Power Generation Business Unit of FPL.

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

A. Yes, I have.

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

A. The purpose of my testimony is to present actual performance results for Equivalent Availability Factor (EAF) and Average Net Operating Heat Rate (ANOHR) for the twenty five (25) units used to determine the Generating Performance Incentive Factor (GPIF) and to compare these actual results to the targets that were approved in Commission Order No. PSC-94-0390-FOF-EI, issued April 4, 1994, for the period April, 1994 through September, 1994. On the

basis of this comparison, I have calculated an incentive amount for the period.

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

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

Q. What is the incentive amount you have calculated for the period April, 1994 through September, 1994?

A. I have calculated a GPIF reward of $3,065,156.

Q. Will you please explain how the reward amount is calculated?

A. The steps involved in making this calculation are contained in Document No. 1. Page 2 of Document No. 1 is the GPIF Reward/Penalty Table (Actual) and shows an overall GPIF performance point value of +3.7214 which corresponds to a GPIF reward of $3,065,156. Page 3 is the calculation of the maximum allowed incentive dollars. The calculation of the system actual GPIF performance is shown on page 4. This page lists each unit, the performance indicators (ANOHR and EAF), the weighing factors and the associated GPIF points.

Page 5 is the actual EAF and adjustments summary. This page lists each of the twenty five (25) GPIF units, the actual outage factors and the actual EAF in Columns 1 through 5. Column 6 is the adjustment for planned outage variation, which is shown on page 6. Column 7 is the adjusted actual EAF and Column 8 is the target EAF. Column 9 contains the Generating Performance Incentive

Points for availability as determined from the tables submitted and approved by the Commission prior to the start of the period. These tables are shown on pages 8 through 32.

Page 7 shows the adjustments to ANOHR. For each of the twenty five (25) GPIF units, it shows the target heat rate formula, the actual Net Output Factor (NOF) and the actual ANOHR in Columns 1 through 4. Since heat rate varies with NOF, it is necessary to determine both the target and actual heat rates at the same NOF. This adjustment is to provide a common basis for comparison purposes and is shown numerically for each GPIF unit in Columns 5 through 8. Column 9 contains the Generating Performance Incentive Points that have been determined from the table submitted for each unit and approved by the Commission. These same tables are shown on pages 8 through 32.

Q. Are there any changes to the targets approved by through Commission Order No. PSC-94-0390-FOF-EI ?

A. No, the approved targets have not changed. However, the actual availability (EAF) of St. Lucie Unit No. 1 , used in the calculation of the GPIF, was adjusted to compensate for the loss in availability resulting from an externally caused natural event during the month of June, 1994.

Q. Can you describe this externally caused natural event ?

A. Yes. On June 6, 1994 a severe thunderstorm accompanied by high wind activity struck the St. Lucie Nuclear Plant site. The high winds blew a piece of metal into

the transformer of Unit No. 1 causing a unit reactor trip . As a result, St. Lucie Unit 1 experienced a full forced outage. Since the event was an unpredictable, natural disturbance, neither FPL nor the customer should be penalized for the resulting loss in availability . Therefore, the loss in availability directly caused by the extreme weather will be excluded from the GPIF calculation by adjusting the actual equivalent availability (EAF) of St. Lucie Unit No. 1 for the April, 1994 through September, 1994 period. In addition, the occurrence will be excluded from calculations performed to determine future availability targets for St Lucie Unit No. 1. This approach is consistent with the GPIF Operating Manual, section 4.3.

Q. How was the actual EAF of St. Lucie Unit No. 1 affected by the severe storm?

A. The full forced outage hours due directly to the severe storm were removed from the total equivalent forced outage hours for the April, 1994 through September, 1994 period. The period hours were also reduced by the number of full forced outage hours. The Adjusted Actual EAF was recalculated with the adjusted outage hours and period hours. The adjustment to St. Lucie Unit No. 1 is directly related to the impact of the severe storm on that unit. Page 6 of 32 in Document 1 shows the final adjusted EAF for St. Lucie Unit No. 1. The equivalent forced outage hours were reduced by 118.4 equivalent hours from 248.2 equivalent hours to 129.8 equivalent hours. The period hours were reduced from 4391 hours to 4273 hours. The severe storm adjustment changed the actual EAF from 92.3% to 94.8%. The normal adjustment for differences between target and actual planned outage hours was not affected because no planned outages had neither been

scheduled nor performed on St. Lucie Unit No. 1 during the April, 1994 through September, 1994 period.

This methodology is consistent with that used for prior natural disturbances and disasters such as Hurricane Andrew.

Q. Mr. Silva, will you explain the primary reason or reasons why FPL will be rewarded under the GPIF for the period April, 1994 through September, 1994 ?

A. Yes. Improvements in the availability of FPL's nuclear generating units contributed to the majority of the GPIF reward. The improvement in the nuclear unit availability at Turkey Point Units No. 3 and No. 4 ,and St. Lucie Units No. 1 and No. 2 contributed significantly to the GPIF reward. Additionally, availability performance at the St. Johns Units 1 and 2 and at Scherer Unit 4 also contributed to FPL's reward. More detail is provided below.

Q. Mr. Silva, would you please summarize the performance of FPL's nuclear units availability?

A. Turkey Point Unit 3 operated at an adjusted actual EAF of 68.6% as compared to its target of 67.0%. This will result in a + 5.33 point reward which corresponds to a GPIF reward of $ 311,672.

Turkey Point Unit 4 operated at an adjusted actual EAF of 96.0% as compared to its target of 93.6%. This will result in a + 8.00 point reward which corresponds to a GPIF reward of $649,700.

St. Lucie Unit 1 operated at an adjusted actual EAF of 94.8% as compared to its

target of 93.4%. This will result in a +4.67 point reward which corresponds to a GPIF reward of $ 488,099.

St. Lucie Unit 2 operated at an adjusted actual EAF of 82.1% as compared to its target of 70.3%. This will result in a +10.00 point reward which corresponds to a GPIF reward of $1,179,477.

The total GPIF reward for the nuclear units' availability performance is $2,628,948.

Q. Mr. Silva, please summarize the nuclear units performance as it relates to the ANOHR of the units.

A. Turkey Point nuclear unit 3 operated with an adjusted actual ANOHR of 11131 BTU/KWH which was poorer than projected by 45 BTU/KWH. This ANOHR is within ± 75 BTU/KWH of the projected target, therefore there is no GPIF reward or penalty.

Turkey Point nuclear unit 4 operated with an adjusted actual ANOHR of 11220 BTU/KWH which was poorer than projected by 4 BTU/KWH. This ANOHR is within ± 75 BTU/KWH of the projected target, therefore there is no GPIF reward or penalty.

St. Lucie nuclear unit 1 operated with an adjusted actual ANOHR of 10942 BTU/KWH which was poorer than projected by 96 BTU/KWH. This will result in a -10.00 point penalty which corresponds to a GPIF penalty of ($235,566).

St. Lucie nuclear unit 2 operated with an adjusted actual ANOHR of 10902 BTU/KWH which was poorer than projected by 106 BTU/KWH. This will result in a -3.41 point penalty which corresponds to a GPIF penalty of ($58,891).

The total penalty for the nuclear units' heat rate performance is ($294,457).

Q. Mr. Silva, what will the total GPIF incentive reward be for the FPL nuclear units for EAF and ANOHR?

A. $2,334,491.

Q. Mr. Silva, would you please summarize the performance of FPL's fossil units?

A. Fourteen (14) of the units performed better than their availability targets, while the remaining seven (7) performed poorer than their targets. The combined fossil unit availability performance will result in a GPIF reward of $493,947.

Five (5) of the units operated with ANOHR's that were better than projected and seven (7) units operated with ANOHR's that were poorer than projected. The remaining nine (9) units were within the ± 75 BTU/KWH dead band and they will receive no incentive reward or penalty. The combined fossil unit heat rate performance will result in a GPIF reward of $236,719.

The performance of the twenty one (21) fossil units included in the GPIF for the period of September, 1994 through April, 1994 will receive a total combined GPIF reward of $730,666 for EAF and ANOHR.

Q. **Mr. Silva, does this conclude your testimony?**

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF R. SILVA

DOCKET NO. 950001-EI

JANUARY 17, 1995

Q. Please state your name and business address.

A. My name is Rene Silva and my business address is 9250 W. Flagler Street, Miami, Florida 33174.

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

A. I am the Manager of Forecasting and Regulatory Response for the Power Generation Business Unit of FPL.

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

A. Yes, I have.

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

A. The purpose of my testimony is to present the target unit average net operating heat rates and target unit equivalent availabilities for the period April, 1995 through September, 1995, for use in determining the Generating Performance Incentive Factor (GPIF). The improvement and degradation range for each performance indicator is also presented in this testimony.

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

A. FPL projects a weighted system equivalent planned outage factor of 2.0% and a weighted system equivalent unplanned outage factor of 8.5% which yield a weighted system equivalent availability of 89.6%. FPL also projects a weighted system average net operating heat rate of 9674 BTU/KWH. As discussed in more detail later in this testimony, these targets represent fair and reasonable values when compared to historical data. I therefore ask that the targets for these performance indicators and the respective improvement/degradation ranges in my testimony be approved by the Commission for FPL.

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

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

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

A. Yes, I have. Document No. 1, pages6 and 7 contain the information summarizing the targets and ranges for unit equivalent availability and average net operating heat rates for the twenty (20) generating units which

FPL proposes to have considered. These sheets were prepared in accordance with the latest revisions of the GPIF Manual, except that, for consistency with previous GPIF filings, it is necessary to divide the format of Sheet 3.505 of the GPIF Manual into two sheets. All of these targets have been derived utilizing methodologies as adopted in Section 4, Subsection 2.3 of the GPIF Manual.

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

A. The GPIF Manual requires that the equivalent availability target for each unit be determined as the difference between 100% and the sum of the Planned Outage Factor (POF) and the Unplanned Outage Factor (UOF). The POF for each unit is determined by the length of the planned outage during the projected period. The GPIF Manual also requires that the sum of the most recent twelve month ending average forced outage factor (FOF) and maintenance outage factor (MOF) be used as the starting value for the determination of the target unplanned outage factor (UOF). The UOF is then adjusted to reflect recent monthly performance and known modifications or changes in equipment.

For most units in the GPIF this adjustment is usually done for units which had or are forecast to have planned outages. When a unit is in a planned outage state the unit cannot incur an unplanned outage. For this reason, when historical data, which contains a planned outage, is used for developing targets, the UOF will be lower than if the unit had operated the entire period.

To account for this, the historical UOF is increased in proportion to the planned outage duration for that period. Similarly, if a unit is forecast to have a planned outage in the projection period the adjusted historical UOF will be higher than it should because it will not be exposed to unplanned outages for the entire period. In this case the UOF is reduced in proportion to the forecast planned outage duration.

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

A. Yes.

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

A. The twenty (20) units which FPL proposes to use represent the top 81.06% of the forecast system net generation for the April, 1995 through September, 1995 period. These units were selected in accordance with the GPIF Manual Section 3.1 using the estimated net generation for each unit taken from the production costing simulation program, POWRSYM, which forms the basis for the projected levelized fuel cost recovery factor for the period.

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

A. Yes. To fully appreciate why these targets are reasonable, and in some cases ambitious, it would be necessary to discuss the development of both the heat

rate and availability targets for each of the nineteen units in the GPIF. However, a less rigorous approach of comparing weighted system values of these targets to actual values for prior periods will provide a valuable insight into the appropriateness of the targets.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF RENE SILVA

DOCKET NO. 950001-EI

January 17, 1995

Q Please state your name and address.

A. My name is Rene Silva. My business address is 9250 W. Flagler Street, Miami, Florida 33174.

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

A. I am employed by Florida Power & Light Company (FPL) as Manager of Forecasting and Regulatory Response in the Power Generation Business Unit.

Q. Have you previously testified in this docket?

A. Yes.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present and explain FPL's projections for (1) dispatch costs of heavy fuel oil, light fuel oil, coal and natural gas, (2) availability of natural gas to FPL, (3) generating unit heat rates and

availabilities, and (4) quantities and costs of interchange and other power transactions. These projected values were used as input values to POWRSYM in the calculation of the proposed fuel cost recovery factor for the period April through September, 1995. In addition, my testimony presents and explains costs, included in the projected Fuel Cost Recovery Factor, associated with equipment modifications to some of FPL's generating units, necessary to allow these units to burn a more economic grade of residual fuel oil and thereby achieve significant fuel cost savings for its customers.

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

A. Yes, I have. It consists of pages 1 through 8 of Appendix I of this filing.

Q. What are the key factors that could affect the price for residual fuel oil during the April through September, 1995 period?

A. The key factors are (1) demand for crude oil and petroleum products, (2) non-OPEC crude oil

supply, (3) the extent to which OPEC production matches actual demand for OPEC crude oil, and (4) the relationship between residual fuel oil and crude oil.

In general, world demand for crude oil and petroleum products is projected to increase moderately during 1995, driven by the continued recovery in Western Europe and Japan, plus the rapid economic growth in other countries in the Pacific Rim.

On the supply side, total non-OPEC crude oil supply is projected to increase slightly during 1995 due to high levels of production in the North Sea and Colombia.

Regarding OPEC crude oil production, it is projected that in 1995 OPEC production will effectively match demand for OPEC crude oil.

It is projected that these factors will cause crude oil prices, and consequently heavy fuel oil prices, to increase moderately during 1995.

Q. What is the projected relationship between heavy fuel oil and crude oil prices during the April through September, 1995 period?

A. Heavy fuel oil prices on the U. S. Gulf Coast are projected to be approximately 74% of the price of West Texas Intermediate (WTI) crude oil.

Q. Please provide FPL's projection for the dispatch cost of heavy fuel oil for the April through September, 1995 period based on FPL's evaluation of the key factors discussed above.

A. FPL's projection for the dispatch cost of heavy fuel oil is provided on page 3 of Appendix I in dollars per barrel at each of the oil-fired plants. We project that during this period the dispatch cost of heavy fuel oil will range from $12.67 to $14.92 per barrel for 2.5% sulfur grade fuel oil, $12.95 to $15.80 per barrel for 2.0% sulfur grade fuel oil, $13.86 to $16.68 per barrel for 1.0% sulfur grade fuel oil, and from $15.09 to $17.51 per barrel for 0.7% sulfur grade fuel oil, approximately, (depending on the month and the delivery location).

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

A. The key factors that affect the price of light fuel oil are similar to those described above for residual fuel oil. Therefore, in general the market price of light fuel oil is projected to increase moderately during 1995.

Q. Please provide FPL's projection for the dispatch cost of light fuel oil for the period from April through September, 1995 based on FPL's evaluation of the key factors discussed above.

A. FPL's projection for the dispatch cost of light oil for each of the combustion turbine and combined cycle plants is shown on page 4 of Appendix I. We project that during this period the dispatch cost of light fuel oil will range from $20.61 per barrel to $25.10 per barrel for 0.5% sulfur grade light fuel oil and from $20.62 per barrel to $26.48 per barrel for 0.3% sulfur grade light fuel oil, approximately, (depending on the month and delivery location).

Q. What is the basis for FPL's projections of the dispatch cost of coal at the St. Johns River

Power Park (SJRPP)?

A. The projected dispatch cost of coal at SJRPP is based on FPL's price projection of spot coal delivered to SJRPP.

Although about 77% of the coal purchased for SJRPP during the period will be under the terms of the three long-term coal supply contracts, since annual coal volumes delivered under these contracts are fixed on October 1st of the previous year, they do not affect the daily dispatch decision. The dispatch price of coal for SJRPP is based on the variable component of the coal cost, the projected spot coal price. About 23% of coal purchased for SJRPP for the period will be spot coal.

Q. Please provide FPL's projection for the dispatch cost of coal for SJRPP for the April through September, 1995 period.

A. FPL's projected dispatch cost of coal at SJRPP, shown on page 5 of Appendix I, is approximately $1.37 per million BTU, delivered to SJRPP.

Q. What is the basis for FPL's projections of the

dispatch cost of coal at Scherer Unit 4 for the April through September, 1995 period?

A. FPL's projected dispatch cost of coal at Scherer Unit 4 for the first two months of the period, is set equal to the projected monthly average cost of coal delivered to the Scherer Plant. For the last four months of the period, the dispatch cost is set equal to the projected monthly spot price of coal, delivered to the Scherer Plant, since by June 1, 1995 FPL will have the right to dispatch the Unit 4, following the final closing on the acquisition of Scherer Unit 4. Approximately 79% of the coal purchased during the period is projected to be spot coal from the Powder River Basin. The balance will be Eastern coal delivered under existing contracts.

Q. Please provide FPL's projection for the dispatch cost of coal for Scherer Unit 4 during the April through September, 1995 period.

A. FPL's projected dispatch cost of coal at Scherer Unit 4, shown on page 5 of Appendix I, is $1.70 per million BTU for April and May, and $1.48 per million BTU, for the last four months of the period.

Q. What are the factors that affect natural gas prices during the April through September, 1995 period?

A. The key factors are (1) domestic natural gas demand and supply, (2) foreign natural gas imports and (3) heavy fuel oil prices.

In general, domestic demand for natural gas is projected to increase moderately during 1995 due primarily to increased usage for electric generation. On the supply side, U.S. production of natural gas, storage availability and Canadian imports are also projected to increase moderately. As indicated previously, heavy fuel oil prices are projected to be somewhat higher.

It is projected that these factors will result in 1995 average natural gas prices remaining essentially the same as 1994 average prices.

Q. What are the factors that affect the availability of natural gas to FPL during the April through September, 1995 period?

A. The key factors are (1) the projected capacity of natural gas transportation facilities into

Florida and (2) the projected natural gas demand in the State of Florida.

The capacity of natural gas transportation facilities into the State of Florida is projected to be 1,455,000 million BTU per day during the April through September, 1995 period. FPL's total firm transportation capacity will range from 480,000 million BTU per day to 630,000 million BTU per day.

Total demand for natural gas in the State during the period is projected to be between 1,405,000 million BTU per day and 1,305,000 million BTU per day, or from 50,000 to 150,000 million BTU per day below the pipeline's maximum capacity. This would make it possible for FPL to acquire additional gas.

Q. Please provide FPL's projections for natural gas unit costs and availability to FPL for the April through September, 1995 period based on FPL's evaluation of these factors.

A. FPL's projections of delivered natural gas unit costs and availability are provided on page 6 of

Appendix I. We project that during this period the system-weighted-average total cost of natural gas to the FPL system will range from $2.31 to $2.78 per million BTU and the average total availability of natural gas to FPL will range from 630,000 to 680,000 million BTU per day.

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

A. The projected Average Net Operating Heat Rates were developed using the actual monthly Average Net Operating Heat Rates and the corresponding Net Output Factors from the previous three years' April-through-September periods. The standard least squares regression method was applied to the three years' data to derive a first order Average Net Operating Heat Rate equation.

An efficiency factor, or heat rate multiplier, was then calculated for each unit. The efficiency factor represents the difference between the unit's measured heat rate and the

heat rate projected by the Average Net Operating Heat Rate equation. The most recent unit dispatch heat rate curves, modified by the unit's efficiency factors, were provided as input to the POWRSYM model.

Q. Are you providing the outage factors projected for the period April through September, 1995?

A. Yes. This data is shown on page 7 of Appendix I.

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

A. The unplanned outage factors were developed using the actual historical full and partial outage event data for each of the units. The actual unplanned outage factor of each generating unit for the previous twelve-month period was adjusted, as necessary, to eliminate non-recurring events and recognize the effect of planned outages to arrive at the projected factor for the April through September, 1995 period.

Q. Please describe significant planned outages for

the April through September, 1995 period.

A. Planned outages at our nuclear units are the most significant in relation to Fuel Cost Recovery. Turkey Point unit No. 3 is scheduled to be out of service for refueling from September 15, 1995 until November 7, 1995 or fifteen days during the period. There are no other significant planned outages during the projected period.

Q. Are any changes to FPL's generation capacity planned during the April through September, 1995 period?

A. No.

Q. Please discuss the arrangements between FPL and JEA regarding the St. Johns River Power Park (SJRPP).

A. Under the terms of the contract, FPL owns 20% of the units and has the right to schedule an additional 30% of the capacity of the units from JEA's portion. The portion of energy scheduled by FPL related to FPL's 20% ownership of the units is included in Fuel Cost Recovery Schedules as FPL generation, and the balance of

energy scheduled and related energy costs are included in Fuel Cost Recovery Schedules as purchased power.

Q. Are you providing the projected interchange and purchased power transactions forecasted for April through September, 1995?

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

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

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

For services provided by FPL to other utilities, FPL recently developed amended Interchange Service Schedules, including AF (Emergency), BF (Scheduled Maintenance), CF (Economy), DF

(Outage), and XF (Extended Economy). These amended schedules replace and supersede existing Interchange Service Schedules A, B, C, D, and X for services provided by FPL.

Q. Does FPL have arrangements other than interchange agreements for the purchase of electric power and energy which are included in your projections?

A. Yes. FPL purchases coal-by-wire electrical energy under the Unit Power Sales Agreements (UPS) with the Southern Companies. FPL has contracts to purchase nuclear energy under the St. Lucie Plant Nuclear Reliability Exchange Agreements with Orlando Utilities Commission (OUC) and Florida Municipal Power Agency (FMPA). FPL also purchases energy from JEA's portion of the SJRPP Units, as stated above. Additionally, FPL purchases energy and capacity from Qualifying Facilities under existing tariffs and contracts.

Q. Please provide the projected energy costs to be recovered through the Fuel Cost Recovery Clause for the power purchases referred to above during

the April through September, 1995 period.

A. Under the UPS agreements FPL's capacity entitlement during the projected period is 1,007 MW from April through May, 1995 and 916 MW from June through September, 1995. Based upon the alternate and supplemental energy provisions of UPS, an availability factor of 100% is applied to these capacity entitlements to project energy purchases. The projected UPS energy (unit) cost for this period, used as input to POWRSYM, is based on data provided by the Southern Companies. For the period, FPL projects the purchase of 1,775,782 MWH of UPS Energy at a cost of $34,177,200. In addition, we project the purchase of 1,794,008 MWH of UPS Replacement energy (Schedule R) at a cost of $33,670,300. The total UPS Energy plus Schedule R projections are presented on Schedule E7 of Appendix II.

Energy purchases from the JEA-owned portion of the St. Johns River Power Park generation are projected to be 1,382,650 MWH for the period at an energy cost of $21,177,000. FPL's cost for energy purchases under the St. Lucie Plant Reliability Exchange Agreements is a function of

the operation of St. Lucie Unit 2 and the fuel costs to the owners. For the period, we project purchases of 264,893 MWH at a cost of $1,322,695. These projections are shown on Schedule E7 of Appendix II.

In addition, as shown on Schedule E8 of Appendix II, we project that purchases from Qualifying Facilities for the period will provide 2,263,095 MWH at a cost to FPL of $38,925,070.

Q. How were energy costs related to purchases from Qualifying Facilities developed?

A. For those contracts that entitle FPL to purchase "as-available" energy we used FPL's fuel price forecasts as inputs to the POWRSYM model to project FPL's avoided energy cost that is used to set the price of these energy purchases each month. For those contracts that enable FPL to purchase firm capacity and energy, the applicable Unit Energy Cost mechanism prescribed in the contract is used to project monthly energy costs.

Q. Have you projected Schedule A/AF - Emergency

Interchange Transactions?

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

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

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

Q. Please describe the method used to forecast the Economy Transactions.

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

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

A. We have projected 319,365 MWH of Economy energy sales for the period. The projected fuel cost related to these sales is $7,001,445. The

projected transaction revenue from the sales is $9,754,583. Eighty percent of the gain for Schedule C is $2,202,510 and is credited to our customers.

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

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

Q. What are the forecasted amounts and costs of Economy energy purchases?

A. The costs of these purchases are shown on Schedule E9 of Appendix II. For the April through September, 1995 period FPL projects it will purchase a total of 1,378,029 MWH at a cost of $19,412,770. If generated, we estimate that this energy would cost $22,287,874. Therefore, these purchases are projected to result in savings of $2,875,104.

Q. What are the forecasted amounts and cost of energy being sold under the St. Lucie Plant

Reliability Exchange Agreement?

A. We project the sale of 262,154 MWH of energy at a cost of $1,120,283. These projections are shown on Schedule E6 of Appendix II.

Q. Does FPL have any other costs that are included in its proposed Fuel Cost Recovery Factor?

A. Yes. FPL is including in the proposed Fuel Cost Recovery Factor the cost of implementing certain equipment modifications at some of its generating facilities to enable these facilities to operate using a less expensive grade of residual fuel oil.

Q. Which generating units will be modified and what is the cost associated with these modifications?

A. This information is provided in tabular form on page 8 of Appendix I which lists the generating units to be modified, a brief description of the modification, the cost of the modification, the in-service date for each modification, and the total projected fuel cost savings to be realized. The total cost of the modifications is estimated to be $2,754,502. FPL is expected to incur the entire cost of these modifications

by February 28, 1995.

Q. What are the projected fuel cost savings to be derived from these modifications?

A. The projected fuel cost savings to be derived from these modifications are $8,384,671 during the April through September, 1995 period, and $81,325,000 from 1995 to 1999.

Q. Are the generating facilities to be modified permitted to use the less expensive grade of residual fuel oil?

A. Yes. The permits for these generating units presently allow them to use the less expensive higher sulfur grade of residual fuel oil. However, if the modifications were not made, there would have been times when these units, when using the less expensive grade of residual fuel oil, could have exceeded the opacity limit imposed by the Environmental Protection Agency. The modifications will reduce the opacity sufficiently to ensure that the opacity limit will not be exceeded at any time, and thus allow FPL to use the less expensive grade of residual fuel oil.

Q. Has FPL made these or similar modifications at its other generating units?

A. No. FPL has not made these or any similar modifications at any other generating unit. These modifications have only been made at the eight generating units listed on page 8 of Appendix I, and only for the express purpose of ensuring the continued use of the less expensive grade of residual fuel oil at those specific units. As indicated on page 8 of Appendix I, the modifications began in 1994 and will be completed in early 1995.

Q. Would you please summarize your testimony?

A. Yes. In my testimony I have presented FPL's fuel price projections for the fuel cost recovery period of April through September, 1995. In addition, I have presented FPL's projections for generating unit heat rates and availabilities, and the quantities and costs of interchange and other power transactions for the same period. These projections were based on the best information available to FPL, and were used as inputs to POWRSYM in developing the projected Fuel Cost Recovery Factor for the

April through September, 1995 period.

I also have provided the cost of specific plant modifications for several FPL generating facilities to enable them to use a less expensive grade of residual fuel oil and thereby achieve significant fuel cost savings for its customers. This cost has been included in the proposed Fuel Cost Recovery Factor.

Q. Does this conclude your testimony?

A. Yes, it does.

MR. CHILDS: And would you now summarize your testimony, Mr. Silva?

A Yes.

My direct testimony presents and explains the basis for FPL's projections for its unit costs of heavy fuel oil, light fuel oil, natural gas and coal used in FPL's generating units in the period April through September, 1995, as well as monthly quantities of natural gas that will be available to FPL during that period; heat rates and availabilities of FPL's generating units during that period, and quantities and costs of interchange and other power transactions.

These projections were used in the calculation of the proposed fuel cost recovery factor for the period April through September 1995.

In addition, my direct testimony explains why equipment modifications, which in the aggregate cost an estimated $2.8 million, were implemented at eight of FPL's generating units.

The modifications were necessary for FPL to reduce air emissions, opacity in particular, at these eight generating units, and thereby allow FPL to use a more economic rate of fuel oil and then reduce its customers' fuel costs. These modifications were completed by the end of February 1995.

Projected fuel cost savings due to the use of the more economic grade of heavy fuel oil made possible by these modifications amount to about $8.4 million during the April through September period, and $81.3 million through 1999. Since these modifications have been implemented for the specific purpose of reducing fuel costs, the cost of the modifications has been included in FPL's proposed fuel cost recovery factor through the April through September 1995 period.

This concludes my summary.

MR. CHILDS: We tender Mr. Silva.

COMMISSIONER DEASON: Mr. Kaufmann.

CROSS EXAMINATION

BY MR. KAUFMANN:

Q Good morning, Mr. Silva.

A Good morning.

Q I'm going to hand out to the Commission and to you a copy of your responses to Florida Steel's First Set of Interrogatories, Interrogatory No. 1, otherwise known as Schedule A3, and I'd like you to take a look at that, please.

COMMISSIONER DEASON: Do you wish to have this identified?

MR. KAUFMANN: Marked for identification for Exhibit No. 40.

COMMISSIONER DEASON: Yes, it will be so identified.

(Exhibit No. 40 marked for identification.)

BY MR. KAUFMANN:

Q Could you confirm that these are FPL's A3 Schedules?

A Yes.

Q Would you confirm that these are for the last 13 months, up to and including January 1994?

COMMISSIONER KIESLING: Ms. Rush, you have to give one to the court reporter. She's trying to get your attention and didn't make it.

A Yes. They are the A3 Schedules for January 1994 through January 1995.

Q Now, on line No. 44 of each of those schedules is FPL's actual cost of natural gas and estimated cost of natural gas for each month; is that correct?

A Yes.

Q Would you take a look at these monthly schedules, and looking at the current month column, which would be on the left side of the page, could you confirm that in each and every month for the last 13 months that FPL's actual cost of natural gas is less than FPL's estimated cost of natural gas? (Pause)

A Yes, sir.

Q So that there was never a time in the last 13 months that FPL had not overestimated its cost of gas; is that correct?

A There has never been a time when the actual cost of gas has been over our projection.

Q Or even equal too.

A I beg your pardon?

Q Or even equal too.

A Or equal too.

Q Again, referring to the same schedules, would you confirm that in all but three of the last 13 months FPL's actual cost of gas was at least 20% less than FPL's estimated cost of gas?

MR. CHILDS: If you have the months, identified it might be easier to ask him to do that.

MR. KAUFMANN: I would have to do the same thing.

MR. CHILDS: You've got a percentage figure and it's a long process.

COMMISSIONER DEASON: The percentage number is the next column over in the docket.

MR. CHILDS: I just thought rather than thumbing through and counting whether you had three or not out of the 12 it might be easier.

Q (By Mr. Kaufmann) If you would agree, subject

to check, in all but three months of the last 13 that FPL's actual cost of gas was at least 20% less than FPL's estimated cost of gas. (Pause)

A Yes.

Q And would you also confirm that FPL's actual cost of gas was less than FPL's estimate by as much as 39%, and that was, I believe, for September 1994. (Pause)

A Yes.

Q Is it correct that the percentage difference that's reported in this A3 schedule, or these A3 schedules, is reflection as a percentage of the estimated cost of gas; in other words, the difference of the actual versus the estimated?

A The percent difference is the difference as a percent of the estimated cost.

Q Now, if you were to calculate the percentage of overestimation or underestimation not using the estimated cost but actually as a percentage of the actual cost, that percentage would even be greater; is that not true?

A I expect.

Q For example, if you look at the September 1994 schedule where it's calculated that there is an overcollection for that month of 39.1%.

A Yes.

Q If we look at difference of .9819 as a percent of the actual, would you agree with me, subject to check, that the estimated cost of gas exceeded the actual cost by 64%?

A I have no way of knowing that without doing the calculation.

Q Is that a difficult calculation for you to do?

MR. CHILDS: I'm going to object to the question unless there's some basis established that that's an appropriate way to do it. If you change the numerator in the calculation, you always get a different number. I mean it's --

COMMISSIONER DEASON: There's been an objection made. Do you care to respond?

MR. KAUFMANN: I don't know exactly what the basis of the objection is. If he can't do the math, perhaps we can do it another way. I think it's a relevant question having to do with the cost of gas and the amount of the collections.

MR. CHILDS: My objection, Commissioner, went to objecting unless it's established that what he asked the witness to do is an appropriate way to measure the percent change.

COMMISSIONER DEASON: Do you understand the

basis of the objection?

MR. KAUFMANN: I understand. I'm just trying to illustrate that this number, this percentage difference relative to the percentage difference if it were measured against actual cost is actually even a greater variance.

COMMISSIONER DEASON: I understand the nature of the question, and I'm going to overrule the objection. I don't think you have to lay a predicate to determine what a percentage figure is in relation to another figure, and those figures speak for themselves. You may proceed.

MR. KAUFMANN: Just to be clear --

COMMISSIONER DEASON: I'm overruling the objection. You may proceed with your question.

Q (By Mr. Kaufmann) Mr. Silva, do you have in front of you the Appendix 3 that was filed in this case?

A Yes.

Q Would you take a look at Page 6 of Appendix 3.

A Yes.

Q If you refer to Note 6 on that page, based on your knowledge of fuel procurement, does the United State's supply of natural gas continue to be higher than the projections used when FPL reestimated the cost of natural gas for the period of December 1994 through

March 1995?

A Yes.

Q And is it also higher than the projections used when FPL estimated the cost of natural gas for the period of April 1995 through September of 1995 for this filing?

A I'm sorry, could you repeat the question as it related to this, to this statement on Page 6?

Q The question refers to the estimates of United State's gas supply; do they continue to be higher both for the prior period and the projected period than originally anticipated at the time you filed this testimony and appendix?

A We believe that it is, yes.

MR. KAUFMANN: Your indulgence, please.

(Pause)

MR. KAUFMANN: Mr. Silva and Commissioners, I'm handing out documents which I'd like to be marked as Exhibits 41 and 42 for identification. They are articles from the December 2nd -- not articles but pages from the December 2nd, 1994, and March 6th, 1995, Wall Street Journal regarding futures prices for gas.

COMMISSIONER DEASON: Okay, the February 2, '94 article will be identified as Exhibit 41.

MR. KAUFMANN: December 2.

COMMISSIONER DEASON: I'm sorry, December 2nd '94 will be identified as Exhibit 41, and the March 6th, '95, will be identified as Exhibit 42.

(Exhibit Nos. 41 and 42 marked for identification.)

MR. KAUFMANN: Just as a matter for clarification, for the December 2nd page from the Wall Street Journal, that reflects trading for December 1st of 1994, and the March 6th page reflects prices for March 3rd, in case there is any confusion.

Q (By Mr. Kaufmann) Mr. Silva, would you please read the April settlement price for MMBtu from Exhibit 41, and that would be on the second column from the left, about the bottom third of the page.

A Is this the December?

Q This would be for the December 1st, yes.

A I believe its $1.653 per MMBtu. I'm sorry, that was January.

Q For April, please.

A 1.674.

Q Thank you. And looking at the same settlement charge for gas again for April as reported for March 3rd, 1995.

A It is 1.448.

Q Would you agree with me, subject to check,

that is a 13% decrease in natural gas futures in the last three months?

A Approximately, yes.

COMMISSIONER DEASON: Mr. Kaufmann, when you get to a good breaking point, we're going to recess to lunch.

MR. KAUFMANN: This would be one.

COMMISSIONER DEASON: Well recess for lunch and reconvene at 1:00 p.m.

(Thereupon, lunch recess was taken at 11:30 a.m.)

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(Transcript continues in sequence in Volume 3.)