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PLEASE REPLY TO:
TALLAHASSEE

July 13, 1989

Mr. Steve Tribble, Director
Division of Records and Reporting
Florida Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, Florida 32399

Re: Docket No. 890001-EI, Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor; and

Docket No. 890148-EI, Petition of the Florida Industrial Power Users Group to Discontinue Florida Power and Light Company's Oil Backout Cost Recovery Factor.

Dear Mr. Tribble:

Enclosed are the original and 12 copies of the Direct Testimony and Exhibits of Jeffry Pollock, filed on behalf of the Florida Industrial Power Users Group.

Yours truly,

Joe A. McGlothlin

Joseph A. McGlothlin

JAM/jfg

Enclosures

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the Direct Testimony and Exhibits of Jeffry Pollock, on behalf of the Florida Industrial Power Users Group, has been furnished either by hand delivery* or by U.S. Mail to the following parties of record, this 13th day of July, 1989.

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Before the

Florida Public Service Commission

In Re: Petition of the Florida Industrial Power Users Group to Discontinue Florida Power & Light Company's Oil Backout Cost Recovery Factor	)	**Docket No. 890148-EI**

Testimony of Jeffry Pollock

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Jeffry Pollock, 12312 Olive Boulevard, St. Louis, Missouri.

Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?

A I am a consultant in the field of public utility regulation and a principal in the firm of Drazen-Brubaker & Associates, Inc., utility rate and economic consultants.

Q WOULD YOU PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE?

A This is set forth in Appendix A to the testimony.

Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?

A I am testifying on behalf of the Florida Industrial Power Users Group (FIPUG). The FIPUG participants in this Docket are customers of Florida Power & Light Company (FP&L) and are substantial consumers of electricity, primarily for manufacturing. During the year 1987, these customers purchased over 430,000,000 kilowatthours from FP&L under various rate schedules.

Q **WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

A I shall testify in support of FIPUG's Petition to Discontinue FP&L's Oil Backout Cost Recovery Factor. Specifically, I shall present evidence that:

> (1) FP&L's Transmission Project has failed to economically displace oil which led the Commission to qualify it under Rule 25-17.016,F.A.C., and the Project is needed to enable FP&L to meet projected load growth;
>
> (2) In light of actual experience, the prospective application of the energy-based Oil Backout charge for recovery of costs associated with the 500 kV transmission lines and the UPS capacity charges would be unjust, unreasonable and unduly discriminatory;
>
> (3) All Oil Backout revenues based on alleged benefits associated with the deferral of the Martin coal units have been improperly collected from customers; and
>
> (4) The separation of Oil Backout investment and revenues has the effect of understating FP&L's earned return on common equity (ROE) and resulted in a $6.7 million understatement in the refund under the Commission's Income Tax Savings Rule.

Q **ON THE BASIS OF YOUR ANALYSIS, WHAT RELIEF IS FIPUG REQUESTING IN THIS DOCKET?**

A FIPUG is requesting that the Commission:

> (1) Direct FP&L to refund to customers all "accelerated depreciation" revenues

associated with the inclusion of alleged Martin deferral benefits in the calculation of net savings;

(2) Order FP&L to terminate the Oil Backout charge;

(3) Direct FP&L to reflect the investment, revenues and expenses associated with the Oil Backout Project in its Surveillance Report; and

(4) Instruct FP&L that recovery of costs associated with the Oil Backout Project must henceforth be accomplished through the operation of the utility's base rate.

Q WERE YOU RESPONSIBLE FOR THE AFFIDAVIT WHICH WAS FILED WITH FIPUG'S PETITION IN ATTACHMENT 3?

A Yes, I was. The Affidavit was based on an analysis and review of various documents which were readily available at the time. This included FP&L's Fuel and Purchased Power and Oil Backout filings; the Ten-Year Power Plant Site Plans; testimony presented by FP&L in the Nonfirm Load Methodology proceedings (Docket No. 870198-EI); FP&L's APH filing (Docket No. 880004-EU); and various FP&L surveillance and financial reports. I have also reviewed FP&L's testimony and various Commission Orders in Docket No. 820155-EU, the Petition of Florida Power & Light Company for Approval to Recover the Cost of its 500 kV Transmission Project Through an Oil Backout Recovery Factor. The analysis and conclusions contained in the Affidavit, thus, were developed without benefit of discovery from FP&L.

Q HAS FIPUG NOW HAD THE OPPORTUNITY TO SUBMIT DISCOVERY REQUESTS TO FP&L?

A Yes. To date, FIPUG has submitted four rounds of discovery requests, including four requests for production of documents and three interrogatories. Thus far, we have received responses to only the first set of production of documents requests and the first and second sets of interrogatories. It may, therefore, be necessary to further supplement this testimony pending the receipt and analysis of additional discovery responses from FP&L.

Q WOULD ANY OF YOUR RECOMMENDATIONS CHANGE BASED ON FP&L'S RESPONSES TO FIPUG'S DISCOVERY REQUESTS?

A No. Although some of the numbers and calculations presented in the Affidavit have been updated, the revised analysis continues to support the relief sought by FIPUG, as stated above.

Q DO YOU HAVE ANY EXHIBITS TO SUBMIT WITH YOUR DIRECT TESTIMONY?

A Yes. I am sponsoring Exhibit JP-1 (   ), consisting of thirteen schedules.

SUMMARY

Q PLEASE SUMMARIZE YOUR TESTIMONY.

A Since October 1982, the Oil Backout Cost Recovery Factor (OBCRF) has been used by FP&L to recover the cost of constructing and operating two 500 kV transmission lines (the Transmission Project) and all of the capacity charges incurred under the Unit Power Sales (UPS) Agreements with the Southern Company. The Transmission Project strengthened the then existing interties with Georgia Power Company. This improved system reliability (by reducing FP&L's vulnerability to system separations and to single contingency line and generator trips); enabled FP&L to avoid potentially serious problems such as thermal overloads and low voltage conditions; and it removed existing transmission constraints to economic dispatch within the FP&L system enabling FP&L to fully utilize generating capacity located in Northeast Florida.

The Project also enabled FP&L to contract for and make larger quantities of coal-by-wire purchases from the Southern Companies than would have otherwise been possible. This capacity and energy was thought to have a limited availability, a phenomenon which was characterized as a temporary "coal bubble." It was expected, however, that these coal-by-wire purchases would provide power cheaper than FP&L could produce in its oil-fired units, because coal was cheaper than oil. Further, the gap was expected to widen in the future. Projections made by FP&L in 1982 suggested that the Transmission Project would generate nearly $3.5 billion in net fuel cost savings during the first ten years of commercial operation.

Our analysis reveals that the circumstances which may have once justified treating the transmission lines as an Oil Backout Project no longer prevail. Instead of an increasing gap between oil and coal prices, the gap has been substantially reduced due to the dramatic decrease in oil costs. As a consequence, $2.2 billion of promised fuel cost savings have failed to materialize. In fact, circumstances prevailing today suggest that the function being served by the Transmission Project is not oil displacement but to enable FP&L to meet the growing demands of its service territory. Oil displacement is possible only when the utility has surplus capacity. While in the past FP&L's reserve margins were generally above the levels necessary to maintain reliable service, the future promises to be much different. For this reason, FP&L has signed new UPS Agreements. These Agreements entitle FP&L to purchase up to 900 MW of firm capacity through the year 2010. Rather than a temporary "coal bubble," the UPS Agreements, instead, have become a long-term source of base load capacity. FP&L considers these purchases to be a vital cog in its generation expansion plan.

These dramatic changes in circumstances, coupled with the fact that the Oil Backout Rule prohibits the inclusion of any projects whose primary purpose is to meet load growth, justify discontinuing the OBCRF at this time. While it is understandable that the expectation and fear of continuing rising oil prices, which dominated everyone's thinking in 1981-1982, swayed FP&L and the Commission to treat the recovery of the Transmission Project under the OBCRF, the Project has not produced the expected results. Consequently, there is no longer any valid justification for continuing to recover oil backout costs through kWh charges. The Transmission Project revenue requirements and the UPS capacity charges should be collected through base rates.

Besides the above-described changes in circumstances, there are two other reasons for discontinuing the OBCRF. First, FP&L is not in compliance with the Oil Backout Rule because (1) it is recovering costs which are clearly related to load growth, and (2) by assuming a 15.6% return on equity, the utility is recovering more than its actual costs associated with the Oil Backout Project. The Rule clearly states that only the actual costs associated with a project are subject to recovery under the OBCRF. FP&L agreed to utilize a 13.6% ROE in determining the refunds under the Income Tax Savings Rule but it did so excluding the Oil Backout Project. Excluding the rate base and net income associated with the OBCRF in applying the Rule resulted in FP&L understating the required refund by about $6.7 million.

Second, the continued recovery of what are essentially demand-related costs through a kWh charge is unduly discriminatory. As a result, Rate GSLD/CS customers are paying 22% more in revenues than their corresponding responsibility for the oil backout costs.

Besides discontinuing the OBCRF, FIPUG also recommends that the Commission order FP&L to refund $285 million of revenues collected under the OBCRF that are associated with accelerated depreciation. Under the Rule, FP&L has included two-thirds of any positive net savings which it alleges have occurred. (These savings are utilized as accelerated depreciation to reduce the net investment of the Project.) The only reason for collecting any net savings in the OBCRF is the fact that, since June 1987, FP&L has included the costs associated with deferred coal-fired generation capacity in the net savings calculation . FP&L's theory is that, but for the construction of the Transmission Project, it would have built and placed into commercial operation three coal-fired units--in June 1987 (Martin Unit 1); December 1988 (Martin Unit 2); and January 1990 (Unsited Unit 1). Consequently, 700 MW of deferred capacity benefits were included in the net savings calculation beginning in June 1987 and an additional 700 MW of savings were included beginning in December 1988.

FIPUG contends that it is improper to include deferred capacity in the net savings calculation. First, FP&L concedes that the Transmission Project would have been built in any case, even in the absence of the Oil Backout Rule.

Further, the units in question have not been, and may never be, built. Consequently, the investment which FP&L is using to calculate the deferred capacity carrying charges is neither used nor useful. As a matter of accepted regulatory practice, utilities cannot include in their rates the recovery of costs of facilities that are not used and useful, absent extraordinary circumstances. There are no longer any extraordinary circumstances to justify this practice. To require ratepayers to pay higher rates because of the deferral of three, nonexistent, coal-fired units would be tantamount to paying twice for the same capacity. This is because two-thirds of the net savings (which consist primarily of the deferred capacity carrying charges) is added to the UPS capacity charges in determining the revenues to be recovered through the OBCRF.

FP&L has also inflated the net savings by using unrealistically high construction costs and by assuming a 15.6% return on equity in calculating both the AFUDC rate and the return on investment associated with the deferred capacity. At the very least, the Commission should order FP&L to refund these inflated costs. Finally, the Commission should also deny any attempt by FP&L to include Unsited Unit No. 1, which FP&L also alleges to have deferred in the calculation of net savings. FP&L did not make any commitment to construct any of the unsited units.

FP&L'S 500 KV TRANSMISSION PROJECT HAS FAILED TO ECONOMICALLY DISPLACE OIL-FIRED GENERATION

Q **WHY DID THE COMMISSION QUALIFY THE 500 KV TRANSMISSION PROJECT FOR SPECIAL RATE-MAKING TREATMENT UNDER THE OIL BACKOUT COST RECOVERY MECHANISM?**

A The Commission determined that the proposed 500 kV Transmission Line Project would likely economically displace oil-fired generation.

Q **HAS THE PROJECT RESULTED IN THE ECONOMIC DISPLACEMENT OF OIL?**

A No. When FP&L applied to the Commission to qualify the 500 kV Transmission Project for recovery under the OBCRF, it projected net fuel savings of $3.5 billion (nominal). These savings were predicated on the assumption that oil would become increasingly more expensive relative to the cost of importing coal-fired generation from The Southern Company (i.e., the coal-by-wire purchases).

The projections on which approval of the Project under the OBCRF have not materialized. Instead, oil prices have decreased dramatically. Based on FP&L's actual experience and current forecast, the net fuel savings will be only about $1.3 billion (nominal), or only 37%, of FP&L's original projections. The total costs of the Project, including the UPS capacity charges, have exceeded fuel savings by $1.6 billion. The actual net savings, thus, are $0.8 billion less than FP&L had originally projected, as shown in Exhibit JP-1 (   ), Schedule 1, and in the table on Page 11.

Comparison of Out-of-Pocket Costs and Actual Net Savings
(Billions)

Line	Description	Original Forecast*	Actual/ Current Forecast
	Savings:		
1	Avoided Fuel	$ 9.627	$ 4.045
2	Spinning Reserve	0.170	0.078
3	Total Fuel Savings	$ 9.797	$ 4.123
	Costs:		
4	Trans. Project Rev. Req.	0.846	0.292
5	Trans. Project O&M	0.005	0.005
6	Capacity Cost "UPS"	3.482	2.577
7	Capacity Cost "E"	0.096	0.072
8	Energy Cost	6.167	2.755
9	Total Costs	10.595	5.701
10	Net Savings (Losses)--L3-L9	$(0.798)	$(1.578)
11	Net Fuel Savings (L3-L7-L8)	$ 3.534	$ 1.296

*Source: Exhibit JP-1 ( ), Schedule 1

I have excluded the so-called capacity deferral benefits--which are associated with the deferred construction of three 700 MW coal-fired units--because I believe that these benefits have been improperly collected, as explained in more detail beginning on Page 19 of the testimony.

Schedule 1 is a summary of the analysis both in a graph (Page 1) and as a table (Page 2). Referring to Page 1, the projected net savings are shown by the blue bars, while the actual net savings are shown in the green bars. The red bars are based on FP&L's latest projections. These were developed in response to FIPUG's First Set of Interrogatories, No. 17.

Q **WHY DID THE COMMISSION APPROVE THE PROJECT UNDER THE OBCRF IF FP&L WAS PROJECTING TO ACCUMULATE SUCH SUBSTANTIAL NET LOSSES?**

A The Commission, apparently, believed that the projected fuel savings were conservative and that additional savings would have materialized in the form of Alternate and Supplementary energy purchases under the UPS Agreement. Had these alternatives been reflected in FP&L's original projections, the projected net fuel savings would have been materially higher. In other words, the Project would possibly have been projected to be economical even ignoring deferred capacity. (The fact that these alternatives are reflected in the actual/currently forecasted net savings analysis, but not in FP&L's original projections, suggests that the differences in net savings quantified in Schedule 1 are understated.)

The Commission chose, however, to also include benefits associated with deferring the construction of Martin Unit Nos. 3 and 4--which would have consisted of two 700 MW coal-fired units--from 1987 and 1988, respectively, to 1992 and 1994, respectively. In addition, the Commission determined that a third 700 MW coal-fired unit, referred to as Unsited Unit No. 1, would also have been deferred from 1990 to 1993, because of the temporary "coal bubble." Taking these deferral savings into account, the Commission determined that the Project would have accumulated positive net savings to the ratepayers within the first ten years of commercial operation.

Q WHAT FACTORS HAVE CAUSED THE EXPECTED NET FUEL SAVINGS TO BE $2.2 BILLION LESS THAN WAS ORIGINALLY PROJECTED?

A The Commission recognized, in 1982, that:

> **"Whether this project will ultimately prove to be cost-effective to FPL's ratepayers depends on the price differential between oil that would have been burned by FP&L to generate electricity and coal that will be burned by Southern to provide the power purchased by FPL." (Order No. 11217, Page 5)**

The projections made by FP&L and utilized by the Commission, took into account the Company's forecast of oil prices, the price of purchased power, the quantities of power to be purchased. Exhibit JP-1 (   ), Schedule 2, demonstrates that the failure of the Project to produce the expected savings has not been due to any significant difference between actual and projected load growth. Similarly, there has been no material discrepancy between actual and projected amounts of purchased power, as shown in Exhibit JP-1 (   ), Schedule 3. The reason why the net fuel savings are expected to be $2.2 billion less than the original projection lies in the substantial differences between projected and actual oil prices, as shown in Exhibit JP-1 (   ), Schedule 4.

For example, FP&L was originally projecting a composite oil price of $55.41 per barrel in 1989. FP&L is currently forecasting the price of residual oil to be $21.26 per barrel, for 1.0% sulfur content and $21.91 per barrel for 0.7% sulfur content. The latter is $33.50 per barrel, or 60% lower, than the original projection.

Because oil prices have dropped significantly relative to coal prices, FP&L at times can generate electricity from oil cheaper than it can purchase coal-by-wire from Southern. Exhibit JP-1 ( ), Schedule 5, is a comparison between the fuel cost associated with oil generation and the coal-by-wire energy charges since the commencement of the OBCRF, in October 1982. Initially, the difference between oil and coal-by-wire ranged from 1.5¢ to 2.0¢ per kilowatt-hour. The differential has since fallen dramatically. In some recovery periods, oil was cheaper than coal-by-wire. (Had The Southern Companies not made a concession by offering Schedule R to enable FP&L to meet its minimum annual purchase obligation under the Unit Power Sales Agreements, with cheaper resources, coal-by-wire energy would have been more expensive and, therefore, less economical than oil.)

Q FP&L, IN ITS MOTION TO DISMISS FIPUG'S PETITION, ALLEGES THAT FIPUG HAS MISCHARACTERIZED THE OIL BACKOUT RULE AND HAS MISREPRESENTED THE "PRIMARY PURPOSE" TEST WHICH THE COMMISSION PRESCRIBED IN ITS FINAL ORDER IN DOCKET NO. 820155-EU. HOW DO YOU RESPOND TO FP&L'S ALLEGATIONS?

A Contrary to the allegations made in FP&L's Motion to Dismiss, the analysis presented in my original Affidavit and updated herein in Schedule 1 was not intended to parallel the "primary purpose" test which was utilized by the Commission for a limited purpose in the 1982 case. My sole purpose was, and continues to be, to demonstrate that the promised savings have not materialized. FIPUG is not now asserting that the Project must requalify prospectively using the same "Primary Purpose" test, or that the special rate-making treatment is justified if the Project now passes that test. Our position is that the OBCRF should be discontinued because extraordinary rate-making treatment is no longer warranted due to the dramatic changes in circumstances that have transpired since 1982. These changed circumstances render that particular Test useless for evaluating the primary purpose of the Project, at the present time.

Q WHAT WAS THE SO-CALLED "PRIMARY PURPOSE TEST?"

A It was a test devised by the Commission during the qualification phase to determine whether the intended primary purpose of the proposed oil backout project was oil displacement. The Primary Purpose Test was limited to comparing the net fuel savings to the total cost of a project during the first ten years of commercial operation. Net fuel savings are the difference between (1) the sum of the avoided fuel and spinning reserve benefits and (2) the sum of the energy-related costs and the fuel displacement benefits foregone. Capacity-related costs (other than Schedule E) were not included in the determination. If the net difference is greater than the Project revenue requirements, then it was assumed that the primary purpose of the Project was oil displacement.

Q **CAN YOU ILLUSTRATE HOW THE TEST WAS APPLIED IN DOCKET NO. 820155-EI?**

A Referring to Order No. 11217, Attachment 1 to FIPUG's Petition, Page 5, the Primary Purpose Test was applied as follows:

Application of the "Primary Purpose" Test to FP&L's 500 kV Transmission Project in Docket No. 820155-EI (Dollar Amounts in Billions)

	Amount
Total Fuel Savings	$9.797
Energy Costs:	
Coal-by-Wire	6.263
Fuel Displacement Benefits Foregone	2.138
Total Energy Costs	8.401
Net Fuel Savings	$1.396
Total Project Costs	$0.851
Passed Test	Yes

Source: Late Filed Exhibit No. 6X, Page 3 of 12, Docket No. 840001-EI

Q **WHAT ARE THE RESULTS OF THE PRIMARY PURPOSE TEST AS APPLIED TO ACTUAL/CURRENT FORECAST CONDITIONS?**

A As shown in the table below, FP&L computes net fuel savings of $607 million. These savings, however, are nearly $789 million less than the original projections.

Application of "Primary Purpose" Test to FP&L's 500 kV Transmission Project Actual/Current Forecast (Dollar Amounts in Billions)

	per FP&L(a)
Total Savings	$4.123
Energy Costs:	
Coal-by-Wire	2.827
Fuel Displacement Foregone	0.689
Total Costs	3.516
Net Fuel Savings	$0.607
Total Project Costs	$0.297
Passed Test	Yes

(a) FP&L Response to FIPUG's First Set of Interrogatories, No. 17.

Because these are well in excess of the $297 million cost of the Project, FP&L claims that the primary purpose of the Project continues to be the economic displacement of oil-fired generation.

Q ARE THE RESULTS OF THE PRIMARY PURPOSE TEST MEANINGFUL IN TODAY'S ENVIRONMENT?

A No. In today's environment, the ability to purchase firm coal-by-wire capacity and all of the many reliability benefits associated with the Project more than outweigh any prospective oil displacement benefits. The emphasis, thus, has changed since 1982 from oil displacement to enabling FP&L to reliably serve the growing demands of its customers.

Even if the Project were not a vital cog in enabling FP&L to maintain system reliability, the Primary Purpose Test is seriously flawed for several reasons. The Test was not designed to specifically quantify the various reliability benefits associated with the Project. For example, what is the cost of not providing service because of frequent outages? What are the costs of thermal overloads, low voltage problems and system separations? These very real benefits cannot and should not be ignored especially when FP&L will no longer have considerable surplus generating capacity. Further, the Test assumes that coal-by-wire purchases always displace oil. In reality, there may be other ways to economically displace oil. For example, FP&L is relying more on natural gas in its overall generation mix. Several planned unit additions are to be fueled primarily by natural gas.

I also question FP&L's current estimate that the total cost of the Transmission Project would be $300 million (including O&M expense) over the first ten years of commercial operation. In an earlier forecast, by contrast, the cost of the Transmission Project was estimated to be $578 million. It is not clear what would account for the nearly 50% reduction in the cost of the Project. Because FP&L has not yet responded to FIPUG's Second Request for Production of Documents, No. 18, requesting detailed backup of the calculations supplied in response to Interrogatory No. 17, I have not yet had an opportunity to review FP&L's calculations and assumptions.

Coal-by-wire may not always be the most economical energy available to FP&L. Under the UPS Agreements, FP&L is obligated to schedule more expensive base energy whenever designated units are operating at minimum levels. The cost of this energy may, in fact, be quite high because the UPS units tend to have high fuel costs relative to other Southern coal-fired resources. Because FP&L has no other alternative than to schedule this energy, it is inappropriate to categorize these minimum purchases as displacing oil.

Q **HOW HAS FP&L TREATED THESE MINIMUM SCHEDULING OBLIGATIONS IN ITS VARIOUS OIL BACKOUT FILINGS?**

A FP&L has totally ignored these required minimum purchases in its calculations because it has included all coal-by-wire energy in determining net fuel savings (except for 100 MW of Schedule E capacity and energy which pre-dated the Oil Backout Rule). These minimum purchases, in fact, may actually be quite expensive in relation to oil-fired generation because of the substantial drop in oil prices relative to coal-by-wire energy, as shown in Schedule 5.

Q **WHAT WOULD BE THE IMPACT OF ELIMINATING THE MINIMUM SCHEDULING REQUIREMENTS FROM THE AVOIDED FUEL SAVINGS CALCULATION?**

A Assuming that the minimum scheduling requirements would account for 15% of the coal-by-wire purchases since 1985 (when oil prices became more competitive with, and, at times, even less expensive than, coal), then this would eliminate more than $400 million of the claimed avoided fuel savings. Eliminating the $400 million from the net savings calculation--because these minimum purchases are required under the UPS Agreements whether or not they economically displace oil--reduces the net fuel savings to $207 million. This is less than the $297 million cost of the Transmission Project now estimated by FP&L.

Q **ARE THERE ANY OTHER PROBLEMS WITH THE PRIMARY PURPOSE TEST AS IT WAS APPLIED IN DOCKET NO. 820155-EU?**

A Yes, there are. Circumstances have changed such that oil backout is not now the primary purpose of the coal-by-wire purchases.

Q **PLEASE EXPLAIN.**

A For the primary purpose of the project to be oil backout, the purchases must provide capacity in excess of FP&L's reserve requirements. In other words, the coal-by-wire purchases must be displacing oil generation and not merely supplying electricity to meet load growth. This is the same basis on which FP&L calculates the avoided energy fuel savings. As described by FP&L Witness, Mr. William H. Smith:

> "The avoided energy fuel savings were calculated using the 'Average of Displaced Fuels' method. This is the method used in previous Oil Backout Cost Recovery period filings.
>
> Under this method, the calculation of the avoided energy fuel savings is derived from two PROMOD simulation cases. The assumptions used in these PROMOD cases are the same as those used in the Fuel Adjustment PROMOD case for the April - September, 1989 period. The first PROMOD case includes the projected coal-by-wire energy purchases, as shown in Schedule OB-B1. The second case excludes these coal-by-wire purchases. The avoided energy fuel savings are developed by calculating the difference in fuel costs between the two PROMOD cases. These savings represent the fuel cost of an amount of energy equivalent to the coal-by-wire energy, if such energy had been generated by FPL energy sources." (Testimony filed in Docket No. 890001-EI, Page 8)

To be valid, the removal of the coal-by-wire purchases in the second case must assume that there is sufficient capacity and energy to maintain reliable service. If FP&L did not have sufficient capacity to meet the expected demands and to provide adequate reserves in the absence of the coal-by-wire purchases, then the primary purpose would be to supply capacity for increasing loads, not energy to displace oil.

Q **HAS FP&L'S CAPACITY VS. LOAD SITUATION CHANGED SINCE 1982?**

A Yes, it has. In the past, FP&L's reserve margins were generally well above the levels necessary to maintain reliable service. This is shown in Exhibit JP-1 (   ), Schedule 6. Except for 1983, the summer peak reserve margins (Page 1) have ranged from 25% to 38% during the 1982 to 1988 time frame. FP&L's planning reserve margin, by contrast, is currently 15%. Page 2 shows that the winter peak reserve margins were even higher--ranging from 26% to 46%. This surplus of capacity provided an ideal opportunity to utilize coal-by-wire energy to displace less economical oil-fired generation.

Because FP&L is currently experiencing rapid load growth, the future promises to be much different. FP&L is projecting much lower reserve margins. This means that all resources, including coal-by-wire capacity, will be needed by FP&L to maintain reliability.

Q **WOULD FP&L'S PROJECTED RESERVE MARGINS BE ADEQUATE IN THE ABSENCE OF THE COAL-BY-WIRE PURCHASES?**

A No. This is shown in Exhibit JP-1 (   ), Schedule 7. Page 1 of the analysis is based on FP&L's projected summer peak demands, adjusted for load control and qualifying facilities. These are the projected demands on which FP&L assesses the adequacy of its capacity resources. Page 2 of the analysis is based on FP&L's projected winter peak demands.

Referring to Schedule 7, Page 1, the projected summer peak reserve margins, including the additional coal-by-wire capacity, would range from 26% in 1989 to 19% in 1998. Removing the coal-by-wire capacity would reduce the projected summer peak reserve margins to between 7% and 18%.

Schedule 7, Page 2 demonstrates that the projected winter peak reserve margins would generally be lower both with and without the coal-by-wire capacity. In fact, the projected winter peak reserve margin without the coal-by-wire resources would remain below 15% during the forecast period.

The above analysis and FP&L's own statements concerning the importance of the coal-by-wire capacity compel the conclusion that the primary purpose of the transmission lines--both now and in the future--is to enable FP&L to meet its growing system demands.

Q **DIDN'T THE COMMISSION, IN 1982, BELIEVE THAT THE COAL-BY-WIRE PURCHASES WERE A TEMPORARY PHENOMENON?**

A Yes. Quoting from the Final Order in Docket No. 820155-EU, the Commission stated that:

> "Southern expects to have power produced from coal-fired generation available for sale on a firm basis in varying amounts through the mid-1990s. This is sometimes referred to as the coal bubble. Because of the projected price differential between coal and oil, FP&L, who relies heavily on oil-fired generation, has purchased up to 2,000 MW of Southern's coal-by-wire." (Order No. 11217, Page 2, emphasis added)

Similarly, on Page 8 of the same Order, the Commission quoted FP&L's Witness, Mr. Scalf, who testified that:

> ". . . the 500 kV line project appears to be a unique and short-lived coal bubble . . ."

Q **WHAT IS THE CURRENT STATUS OF THE COAL-BY-WIRE PURCHASES?**

A In June 1988, FP&L entered into new Agreements with The Southern Company under which Southern will be obligated to provide up to 900 MW of firm capacity beginning in 1993 and continuing through the year 2010. These new UPS Agreements are similar to the original Agreements which ramp down beginning in 1993.

Q **WHAT IS THE SIGNIFICANCE OF THE NEW UPS AGREEMENTS WITH SOUTHERN?**

A According to FP&L, these purchases are, in fact, a vital cog in its current generation expansion plan (Source: <u>FP&L's Ten-Year Power Plant Site Plan: 1988-1997</u>). Extending the coal-by-wire purchases for an additional fifteen years means that FP&L will be purchasing firm capacity for at least twenty-eight years. Rather than providing a temporary source of capacity, the UPS Agreements are nearly the equivalent of owning base load generation--both from a planning and an operating perspective.

Q **DOES THE OIL BACKOUT RULE PERMIT THE INCLUSION OF PROJECTS WHOSE PRIMARY PURPOSE IS TO SERVE INCREASED LOAD?**

A No. Quoting the Rule:

> "The Oil-Backout Cost Recovery Factor shall not be used for either the recovery of the costs of a project the primary purpose of which is to serve increased megawatt demand or for the recovery of the costs of a new generating unit." [Rule 25-17.016,F.A.C., Paragraph (2)(6)]

To the extent that the UPS Agreements are, in fact, a substitute for, rather than a deferral of, new generating capacity, the continued recovery under the OBCRF would be contrary to the Rule.

THE PROSPECTIVE APPLICATION OF THE OBCRF WOULD BE UNJUST, UNREASONABLE AND UNDULY DISCRIMINATORY

Q IN WHAT RESPECTS WOULD THE PROSPECTIVE APPLICATION OF THE OBCRF RESULT IN UNJUST AND UNREASONABLE RATES?

A FP&L's rates would be unjust and unreasonable because, under the OBCRF, the utility is allowed to earn a 15.6% ROE, and it is permitted automatic increases in fixed operation and maintenance expenses associated with the Project. The 15.6% ROE provides FP&L with a windfall because for all other purposes, including the application of the Commission's Income Tax Savings Rule, FP&L has offered to set rates for its nonoil-backout rate base using a 13.6% ROE.

Q IS A 15.6% ROE REASONABLE, IN YOUR OPINION?

A No. Although I have not conducted a formal study of FP&L's cost of equity, there are several observations which support the unreasonableness of a 15.6% ROE. These observations are summarized in Exhibit JP-1 (   ), Schedule 8. The 15.6% ROE was authorized in a 1984 rate case (Docket No. 830465-EI). Since that Docket, interest rates have fallen dramatically and utility stocks, including FP&L, are now selling at prices well above book value. In recognition of these changed circumstances, the utilities have offered, and the Commission has accepted, lower ROEs than were authorized in each utility's last general base rate case in implementing the Income Tax Savings Rule. The Commission has also approved a settlement authorizing a 12.6% ROE to calculate the base revenue requirement in the recent Florida Power Corporation rate case (Docket No. 870220-EI).

Q HAVE OTHER REGULATORY COMMISSIONS RECENTLY AUTHORIZED A 15.6% ROE?
A No. I'm not aware of any regulatory commission which has authorized a 15% or higher ROE since 1987. In fact, the median authorized ROE has ranged from 12.8% to 13.0%, as shown in Exhibit JP-1 (   ), Schedule 8. Most of these awards have been in the 12.0% to 14.49% range, as shown in Exhibit JP-1 (   ), Schedule 9. Similarly, the current FERC benchmark ROE is 12.44%.

On the basis of these observations, it is my contention that a 15.6% ROE does not represent the actual cost associated with the Oil Backout Project. The continued use of a 15.6% ROE, therefore, would be contrary to the Oil Backout Rule quoted earlier.

Q IS THERE EVIDENCE TO SUGGEST THAT FP&L HAS CHANGED VARIOUS COST PARAMETERS TO REFLECT ACTUAL CONDITIONS?
A Yes. In fact, FP&L is using different estimates of O&M expenses associated with the deferred Martin coal-fired units than the projections that were originally made during the qualification Docket. Similarly, all cost increases as well as changes in capital costs

and tax rates are being incorporated in the determination of Project revenue requirements and deferred capacity carrying charges.

It would be unreasonable to permit FP&L to automatically recover increases in fixed costs without similarly taking into account all circumstances which would lead to lower costs, such as a change in the cost of common equity. Such automatic recovery should, if anything, reduce FP&L's risk and, therefore, lower its cost of equity. FP&L is not afforded a similar luxury for all of its other regulated investment and expenses. In fact, as previously mentioned, FP&L has agreed to use a lower ROE in determining the income tax savings refunds.

The OBCRF was implemented in response to extraordinary circumstances--the expected high cost of oil. Now that these extraordinary circumstances are no longer applicable, there is no reason to treat the purchases from the Southern Company and the revenue requirements associated with the 500 kV Transmission Project any differently from FP&L's other regulated rate base and operating expenses.

Q **WHAT ELSE IS WRONG WITH THE OBCRF?**

A The OBCRF is applied to kilowatthour sales at the meter. The oil backout costs, however, serve the same function as FP&L's other non-nuclear power supply costs and, therefore, are more closely demand-related.

Q **HOW MUCH OF THE OIL BACKOUT COSTS WOULD BE ALLOCATED TO GSLD/CS CUSTOMERS IF THEY WERE TREATED LIKE ALL OTHER NON-NUCLEAR PRODUCTION AND TRANSMISSION CAPITAL COSTS?**

A In FP&L's last rate case, about 1[illegible].3% of the non-nuclear production and transmission capital costs were allocated to the GSLD and CS rate classes.

Q **HOW DOES THIS COMPARE TO THE PERCENTAGE OF COSTS RECOVERED FROM THE GSLD/CS RATE CLASSES UNDER THE OBCRF?**

A The corresponding percentage of oil backout costs recovered from the GSLD/CS rate classes is 18.3%. As shown in Exhibit JP-1 (   ), Schedule 10, the GSLD/CS revenue responsibility is four percentage points, or 22%, higher than the corresponding cost responsibility assuming that the oil backout costs were treated the same as all other non-nuclear production and transmission capital costs. Given that \$2.2 billion of promised fuel savings have failed to materialize and the fact that the coal-by-wire purchases made possible by the Project are a vital cog in FP&L's plans to meet future load growth, it would be unduly discriminatory to continue the extraordinary rate-making practice of charging the GSLD/CS classes rates which are 22% higher than their corresponding cost responsibility, as is presently the case under the OBCRF in which costs that are essentially demand-related costs are recovered solely on a kilowatt-hour basis.

Q **HAS THE COMMISSION EVER ADOPTED A COST ALLOCATION METHOD IN WHICH <u>ALL</u> FOSSIL STEAM PRODUCTION AND TRANSMISSION-RELATED COSTS WERE CLASSIFIED AND ALLOCATED ON ENERGY?**

A No. To my knowledge, the Commission has never approved a cost-of-service method in which <u>all</u> production and transmission fixed costs are allocated to customer classes based solely on kilowatthour sales at the meter. I recognize, of course, that the Commission has employed various energy-based allocation methods in certain base rate cases, including FP&L. In those cases, however, only 7% of the costs were classified to energy, and they were, unlike the OBCRF, allocated relative to energy at the generation level rather than sales at the meter. The Commission has always recognized, both in class cost-of-service studies and in the Fuel and Purchased Power Cost Adjustment Clause, that it is appropriate to adjust energy-related costs to recognize differences in losses.

Q **ARE THE OIL BACKOUT COSTS DEMAND-RELATED?**

A The UPS capacity charges are the major component of the costs which FP&L is passing through the OBCRF. These costs are demand-related because the capacity being purchased is needed by FP&L to maintain system reliability; that is, to meet the projected peak loads and to provide adequate reserves. The continued coal-by-wire purchases are a vital cog in FP&L's plans to maintain system reliability in light of current projections of summer and winter peak demands. Further, these costs are functionally equivalent to the capital costs associated with FP&L's non-nuclear generating resources. The Commission has previously classified these costs primarily to demand.

Similarly, the Transmission Project also provides substantial reliability benefits to FP&L and, therefore, these costs are also demand-related. As previously noted, the Project has enabled FP&L to import firm coal-by-wire capacity and to defer the construction of the Martin Unit Nos. 3 and 4. Because of the Project, FP&L's system is less vulnerable to the type of incidents which formerly would have caused severe outages. These benefits are described in a November 1980 study by Stone & Webster commissioned by FP&L entitled "Review of Planning and Operation of Bulk Power Transmission System." On Page 5-2, the Report states:

> "FP&L's system operators are today loading the transmission system to the point where single contingencies such as line or generator trips cause damage to equipment if operator action is not taken in a reasonable time. While it is acceptable to operate the system in this manner, it is not good practice to plan the system so that it must be stretched to the limit of operator ingenuity even when the generation plans remain on schedule and the load growth rates meet predictions."

Another section of this Report states the following:

> "Currently, to prevent system separation upon loss of the largest unit, power transferred to Florida from Southern Company would have to be limited to essentially zero. This limit is caused by voltage dips near Kingsland, Georgia that occur during the stability swing following the loss of a unit in Florida." (Page 4-1)

Q WOULD THE TRANSMISSION PROJECT HAVE BEEN CONSTRUCTED EVEN IN THE ABSENCE OF THE OIL BACKOUT RULE?

A FP&L has admitted this to be the case. Not only was the utility advised by Stone & Webster of the potentially serious problems associated with the then planned transmission system, FP&L itself has recognized the need to construct the Project. For example, in its April 1981 Petition to the Florida Public Service Commission to Commence Determination of Need for the Duval-Poinsett 500 kV Project, FP&L states:

> "D. Correct Thermal Overload and Low Voltage Conditions:
>
> There are several transmission facilities which will be subject to thermal overloads in the 1980s if the Duval-Poinsett 500 kV Project is not built. They are: (1) Brevard-Malabar 230 kV #1 and #2; (2) Putnam-Volusia 230 kV #1 and #2; (3) Gillette-Big Bend 230 kV (tie with TECO); (4) Midway-Ranch 230 kV; (5) Putnam-Rice 230 kV #1 and #2; (6) Sanford-North Longwood 230 kV (tie with Florida Power Corporation)."

On Page 8 of the same Report, FP&L states:

> "Paragraph E. Improved System Reliability:
>
> Sudden loss of a large generator in peninsular Florida has occasionally resulted in a system separation accompanied by underfrequency load shedding. Completion of the Duval-Poinsett 500 kV Project will substantially increase the ability of the system to withstand major system disturbances such that the need for dropping customer load will be virtually eliminated."

And finally, Page 9 of the Report contains the following language:

> "Paragraph G. Accommodate Load Growth:
>
> This 500 kV transmission will insure ample transmission capacity for future load growth in the FP&L Service Territory through which the Duval-Poinsett 500 kV lines will pass."

There are several locations in the Duval-Poinsett Petition which support FP&L's need for this transmission to properly dispatch its generation and transport available coal-fired generation from Northern Florida. On Page 1, the Petition states:

> "In order for FP&L to fully utilize the Southern purchase, FP&L/JEA joint coal units, Seminole plant transfers, and maximize the economics of oil displacement in Southeast Florida, this project, along with other related 500-kV projects in various stages of planning or construction, is required." (Emphasis added)

On Page 3 of this Petition, the following is listed as a principal benefit of this Project:

> "3. Remove Existing Transmission Constraints to Economic Dispatch Within the FP&L System."

And finally, on Page 21 of the Petition, an adverse consequence of not building the Duval-Poinsett 500 kV Project is listed as:

> "3. The Loss of Adequate and Reliable Transmission Capacity Between Duval and Poinsett."

This final point refers to the part of the State where the coal-fired Seminole Plant and joint FP&L/JEA St. Johns River Project Plants are in operation.

Q DO THE RELIABILITY BENEFITS DESCRIBED ABOVE AND THE DISPROPORTIONATE SHARE OF OBCRF COSTS BORNE BY GSLD/CS CUSTOMERS EXEMPLIFY YOUR CLAIM THAT THE OBCRF IS UNDULY DISCRIMINATORY?

A Yes. In the absence of some extraordinary circumstances, the reliability benefits not only of the Transmission Project but of the firm coal-fired capacity which FP&L is counting on to supply its future load growth needs exemplify the reasons why the costs being recovered through the OBCRF should be allocated among customer classes and collected through base rates on a basis that appropriately reflects the demands which give rise to the need for these costs.

OIL BACKOUT REVENUES BASED ON ALLEGED BENEFITS ASSOCIATED WITH THE DEFERRAL OF COAL-FIRED GENERATING UNITS HAVE BEEN IMPROPERLY COLLECTED FROM CUSTOMERS

Q EARLIER, YOU TESTIFIED THAT FP&L IS INCLUDING THE COSTS ASSOCIATED WITH DEFERRED GENERATION CAPACITY AS PART OF THE CALCULATION OF NET SAVINGS IN DETERMINING THE OBCRF. IS THAT CORRECT?

A Yes.

Q HOW MUCH OF THE DEFERRED CAPACITY COSTS HAVE BEEN COLLECTED BY FP&L?

A Through September 1989, FP&L has recovered about $285 million (0.190¢ per kWh) of costs (excluding add-on revenue taxes) that may be attributable to deferred capacity benefits. These are quantified in Exhibit JP-1 (   ), Schedule 11. In other words, if FP&L had not included the deferred capacity benefits in its Oil Backout filings, it would not have recovered $285 million of accelerated depreciation associated with the Transmission Project.

Q **WHAT UNITS ARE BEING INCLUDED IN FP&L'S ANALYSIS OF THE DEFERRED CAPACITY SAVINGS?**

A Presently, the deferred capacity savings are based on Martin Unit Nos. 3 and 4. Presumably, FP&L will include at least one unsited unit in the analysis beginning in December 1990, the date on which the latter was assumed to have begun commercial operation.

Q **ARE THE MARTIN UNITS PART OF FP&L'S GENERATION EXPANSION PLAN?**

A No. None of the units are under construction at the present time, contrary to the assumptions made in 1982-83, when the Project was qualified under the OBCRF. They have been supplanted by other options. Given the availability of alternatives, it would appear highly unlikely that any of these units will be built in the foreseeable future. According to FP&L's Ten-Year Power Plant Site Plan: 1989-1998, the utility is not planning to construct 700 MW (net) pulverized coal-fired units of the type similar to Martin Unit Nos. 3 and 4 during the forecast period. According to FP&L Form 6, Page 2, the Martin site is listed as a preferred site for planned and prospective generating capacity additions. Specifically, Footnote 3 states:

> "These sites will be considered along with FP&L's existing plant and substation sites

> in determining an appropriate location for the designated combined-cycle and IGCC units or future, unspecified, generating units whose in-service dates are beyond the reporting period." (Page 33)

To assert that the same Martin coal fired units will be constructed is to engage in sheer speculation. As a matter of regulatory practice, rates should never be set based on speculation nor should they include any costs associated with capacity that has not yet been built and is not used and useful in providing service to FP&L's customers.

Q **PLEASE EXPAND ON THE POINT THAT RATES SHOULD NOT BE SET BASED ON CAPACITY WHICH IS NOT USED AND USEFUL IN PROVIDING SERVICE.**

A The Martin units have not been, and may never be, built. Therefore, they cannot be used and useful in providing service to FP&L's customers. As a matter of accepted regulated practice, utilities cannot include in their rates recovery of costs of facilities that are not used and useful, absent extraordinary circumstances.

Even though the Martin units may have once been part of FP&L's generation expansion plan, FP&L has recognized long ago that these units are no longer consistent with least-cost planning. That is, FP&L chose other options besides constructing the Martin units because they were expected to be more cost-effective. Now that FP&L has opted for the least-cost plan, it is entitled to recover the prudently incurred costs of facilities included in that plan that provide used and useful capacity. As a matter of regulatory practice, utilities are not allowed to recover the cost of plans rejected. Yet, this is exactly what is happening in the OBCRF by allowing FP&L to include deferred capacity costs associated with the Martin and unsited coal-fired units. To now require ratepayers to pay higher rates to reflect deferred capacity carrying charges would be tantamount to charging twice for the same capacity.

Q **PLEASE EXPLAIN.**

A The OBCRF is comprised of three elements: (1) all costs of the Transmission Project; (2) the costs associated with the firm UPS capacity; and (3) two-thirds of any positive net savings. Because the present coal-oil energy cost differential is not sufficient to offset the very high UPS capacity charges, the only reason that FP&L is able to claim positive net savings is due to the inclusion of deferred capacity costs of the Martin and Unsited coal units in the net savings calculation. Recall, however, that the availability of firm UPS capacity allowed FP&L to defer the Martin units. Therefore, recovering both the UPS capacity costs and the Martin deferred capacity carrying charges, simultaneously, is would effectively result in a double recovery of the same capacity.

Q **DIDN'T THE COMMISSION, IN ITS ORDER DENYING PETITIONS FOR RECONSIDERATION IN DOCKET NO. 820155-EU, PERMIT FP&L TO INCLUDE THE SAVINGS ASSOCIATED WITH DEFERRED CAPACITY?**

A Yes. However, it deferred the issue of quantifying the proper amount of savings associated with capacity deferral.

Q **HAS THERE BEEN ANY CHANGE IN CIRCUMSTANCES TO WARRANT REVISITING THE ISSUE OF WHETHER THE DEFERRED CAPACITY SAVINGS ASSOCIATED WITH THE MARTIN AND UNSITED COAL-FIRED UNITS SHOULD BE INCLUDED IN DETERMINING THE NET SAVINGS UNDER THE OBCRF?**

A Yes. When the Commission issued its Order Denying Petitions for Reconsideration, these units were still part of FP&L's generation expansion plan. In fact, it was thought that these units would eventually be built because of the short-lived availability of coal-by-wire capacity. As noted above, the coal-by-wire capacity is no longer a short-lived phenomenon. Further, none of the units in question are in FP&L's current generation expansion plan. Not only is FP&L not actively involved in constructing any of the 700 MW pulverized coal-fired units, but it is unlikely that any of these units will be built in the foreseeable future. Because these circumstances are clearly different from the ones which prevailed when the Commission denied the Petitions for Reconsideration, I believe the issue of whether to include the Martin and Unsited coal-fired units in the deferred capacity savings analysis must be revisited.

Q DOES THE RULE PERMIT A UTILITY TO INCLUDE DEFERRED CAPACITY SAVINGS IN DETERMINING THE OBCRF?

A No, not necessarily. The Rule provides that only two-thirds of the *actual* net savings associated with an oil backout project (if positive) can be recovered through the OBCRF and applied as accelerated depreciation. Therefore, if the deferred units are either actually being constructed or are likely to be built within the foreseeable future, it is conceivable that the costs associated with these units could be included in the determination of net savings in the OBCRF. In this case, however, the units in question do not exist, are not under construction and may not be built in the foreseeable future. Further, these units have not been in FP&L's expansion plan since at least 1986. Given these different circumstances, it is highly questionable whether FP&L is in compliance with the Rule when it uses the costs of the Martin and Unsited coal-fired units to determine the deferred capacity savings.

Q ARE THERE ANY OTHER PROBLEMS WITH RESPECT TO FP&L'S ESTIMATES OF THE DEFERRED CAPACITY BENEFITS?

A Yes. Because FP&L has chosen, in this instance, to use the original cost estimates of constructing Martin Unit Nos. 3 and 4--adjusted only for the difference in escalation rates, it has significantly inflated the deferred capacity benefits. For example, the direct construction cost of the Martin units which is being used to calculate the deferred capacity benefits are as follows:

Martin Coal-Fired Unit Nos. 3 and 4 Investment Used in Quantifying Deferred Capacity Carrying Charges in the OBCRF

	Direct Cost	AFUDC	Total Installed Cost
Investment (000)			
Unit 1	$1,119,400	$ 611,508	$1,730,908
Unit 2	755,800	403,085	1,158,885
Total	$1,875,200	$1,014,593	$2,889,793
Unit Cost ($/kW)			
Unit 1	$ 1,599	$ 874	$ 2,473
Unit 2	1,080	576	1,656
Average	$ 1,339	$ 725	$ 2,064

Source: Testimony of D. L. Babka, Document No. 2, filed in Docket No. 890001-EI (January 13, 1989)

Q **HOW DO THESE COSTS COMPARE WITH OTHER COST ESTIMATES OF SIMILAR TYPES OF UNITS?**

A Exhibit JP-1 ( ), Schedule 12, is a comparison of the various cost estimates to construct a two-unit 700 MW (net) pulverized coal-fired generating station. These estimates were compiled from information provided by FP&L in response to FIPUG's First Request for Production of Documents. Although the numbers are not totally comparable because of the different in-service dates, it is instructive to note that the $1,339 per kW direct cost being used by FP&L is substantially above the $1,009 to $1,128 per kW direct cost estimates taken from more contemporaneous studies.

Rather than update its cost estimates--which would have resulted in significantly lower capacity deferral benefits--FP&L has once again chosen to "stick with the past."

Q WHAT ASSUMPTIONS DID FP&L MAKE WITH RESPECT TO THE TOTAL INSTALLED COSTS OF MARTIN UNIT NOS. 3 AND 4?

A The total installed costs of these units averages about $2,064 per kW. This assumes no CWIP in rate base, a 15.6% return on equity and an average cost of senior securities based on actual long-term debt and preferred stock issues during the assumed construction period. All of these assumptions, and particularly the 15.6% ROE, would have the effect of maximizing the total installed cost. This would, in turn, maximize the so-called deferred capacity benefits associated with the Project.

Q SHOULD FP&L BE ALLOWED TO REFLECT THE DEFERRED CAPACITY BENEFITS ASSOCIATED WITH AN UNSITED COAL-FIRED UNIT?

A No. Even though I contend that it is inappropriate to reflect the costs of the deferred Martin coal-fired Unit Nos. 3 and 4 in the calculation of net savings, it is even less appropriate to include any costs associated with unsited coal-fired units. FP&L has not made any commitment to purchase equipment or to enter into a contract to build these unsited units. Other than the Martin site, FP&L has not certified any other sites suitable for 700 MW coal-fired units. Further, the Martin site can only accommodate up to two 700 MW coal-fired units. Finally, FP&L has never applied for an application for site certification for any coal-fired units other than Martin Unit Nos. 3 and 4.

Rate-making should not engage in such endless speculations about what the future may have turned out to be if a different decision had been made. Allowing FP&L to claim capacity deferral benefits of units that do not, and may never, provide used and useful capacity would be highly inappropriate absent some proof that FP&L had made formal commitments to build specific units and that, in light of declining peak load forecasts and oil prices in the mid-1980s, these units would have been needed and would have been the most economical alternatives.

IMPACT OF EXCLUDING OIL BACKOUT COSTS FROM THE CALCULATION OF REFUNDS UNDER THE INCOME TAX SAVINGS RULE

Q HOW WERE OIL BACKOUT RATE BASE AND NET OPERATING INCOME TREATED BY FP&L IN DETERMINING THE AMOUNT OF REFUND NECESSARY UNDER THE COMMISSION'S INCOME TAX SAVINGS RULE?

A FP&L has completely removed all Oil Backout costs from the adjusted jurisdictional rate base, rate of return and net operating income in determining the required refunds. It did so under the guise that removing these costs is required by the Commission.

Q IS THERE ANYTHING IN THE INCOME TAX SAVINGS RULE WHICH REQUIRES FP&L TO REMOVE OIL BACKOUT COSTS FROM THE ANALYSIS?

A No.

Q WOULD FP&L'S REQUIRED REFUND HAVE BEEN DIFFERENT IF OIL BACKOUT COSTS HAD BEEN INCLUDED?

A Yes. The required refund would have been about $60.0 million rather than $53.3 million, a difference of $6.7 million. These amounts are derived in Exhibit JP-1 ( ), Schedule 13.

Referring to Schedule 13, Page 1, Column 1 shows the derivation of the refund proposed by FP&L which excludes the Oil Backout revenues and costs. Column 2 shows the same calculations with the Oil Backout net operating income and rate base included. The derivation of the Oil Backout operating income and rate base under both the old and new tax rates is shown on Page 2 of Schedule 13.

Schedule 13, Page 3, shows the derivation of the capital structure and stipulated cost of capital with the inclusion of the Oil Backout investment. Because the latter is financed with higher cost capital, the combined cost of capital with a stipulated 13.6% return on common equity yields an overall 9.31% rate of return. Even accounting for the higher cost of senior securities, FP&L continues to earn a higher return on its Oil Backout investment because it continues to use the 15.6% ROE approved in its last general rate case, in 1984.

RECOVERY OF OIL BACKOUT COSTS MUST HENCEFORTH BE ACCOMPLISHED THROUGH THE OPERATION OF THE UTILITY'S BASE RATES

Q **FIPUG IS RECOMMENDING THAT THE OBCRF BE TERMINATED AND THAT THE RECOVERY OF THESE COSTS SHOULD BE ACCOMPLISHED THROUGH BASE RATES. IF THE COMMISSION GRANTS FIPUG'S REQUEST, WOULD THIS NECESSITATE INCREASING FP&L'S BASE RATES AT THIS TIME?**

A It is not clear whether FP&L would require a base rate increase to absorb the costs which are currently being recovered through the OBCRF. Further, I would not recommend a base rate increase to compensate for the OBCRF without a full and complete review of FP&L's overall revenue requirements and, in particular, O&M expenses and return on equity. Despite all of the increases in investment and expenses incurred by FP&L since its last base rate case, in 1984, the Company has already implemented a $53 million refund in 1987 and is proposing to implement an additional refund in 1988, under the Commission's Income Tax Savings Rule. I would further note that FP&L absorbed nearly $200 million of additional rate base due to the unsuccessful litigation concerning the Martin Dam repairs and the Turkey Point steam supply costs without the necessity of a base rate increase. FP&L is also absorbing the costs of the St. John's coal-fired units, again without the need for a base rate increase.

In the final analysis, FP&L should have to demonstrate to this Commission that it would require a base rate increase after considering all factors, including the termination of the OBCRF. Further, mechanisms exist which are designed to enable FP&L to avoid any prejudice which might result if current rates are inadequate to absorb the Oil Backout costs.

Q PLEASE EXPLAIN.

A FP&L always has the ability to file an application with the Commission for interim rate relief. I am advised by Counsel that the Commission has the statutory authority to grant interim rate relief on an expedited basis provided that FP&L has made a proper showing. Thus, any financial integrity concerns can be properly and expeditiously addressed in a separate proceeding.

Q DOES THAT CONCLUDE YOUR DIRECT TESTIMONY, AT THIS TIME?

A Yes, it does, at this time.

Qualifications of Jeffry Pollock

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Jeffry Pollock, 12312 Olive Boulevard, St. Louis, Missouri.

Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?

A I am a consultant in the field of public utility regulation and am a principal in the firm of Drazen-Brubaker & Associates, Inc., utility rate and economic consultants.

Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A I am a graduate of Washington University. I hold the degrees of Bachelor of Science in Electrical Engineering and Master of Business Administration. At various times prior to graduation, I worked for the McDonnell Douglas Corporation in the Corporate Planning Department; Sachs Electric Company; and L. K. Comstock & Company. While at McDonnell Douglas, I analyzed the direct operating cost of commercial aircraft. Upon graduation, in June, 1975, I joined the firm of Drazen-Brubaker & Associates, Inc. My work consists of preparation of financial and economic studies related to electric and gas utilities, including revenue requirements, cost-of-service studies, rate design, site evaluations and service contracts. I am also responsible for the development of seminars on utility regulation.

I have testified before the regulatory commissions of Alabama, Arizona, Delaware, Florida, Georgia, Illinois, Iowa, Louisiana, Minnesota, Missouri, Montana, New Jersey, New Mexico, Ohio, Pennsylvania, Texas and Washington. I have also appeared before the City of Austin Electric Utility Commission, the Board of Public Utilities of Kansas City, Kansas, the Bonneville Power Administration, and the U.S. Federal District Court.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and has assumed the utility rate and economic consulting activities of Drazen Associates, Inc., active since 1937. In the last five years, our firm has participated in more than 700 rate cases in forty states and Canada.

The firm provides consulting services in the field of public utility regulation to many clients, including large industrial and institutional customers, some utilities and, on occasion, state regulatory agencies. In addition, we have also prepared depreciation and feasibility studies relating to utility service. In all these cases, it was necessary to analyze the utility's operating and financial records, including property records, depreciation studies, revenues, expenses and taxes. We also assist in the negotiation of contracts for utility service for large users and present seminars on utility regulation.

In general, we are engaged in regulatory consulting, economic studies and contract negotiation.

Exhibit JP-1 (   )
Schedule 1
Page 1 of 2

FLORIDA POWER & LIGHT COMPANY

Cumulative Out-of-Pocket Cost Savings of the Oil Backout Project
(1982 - 1992)

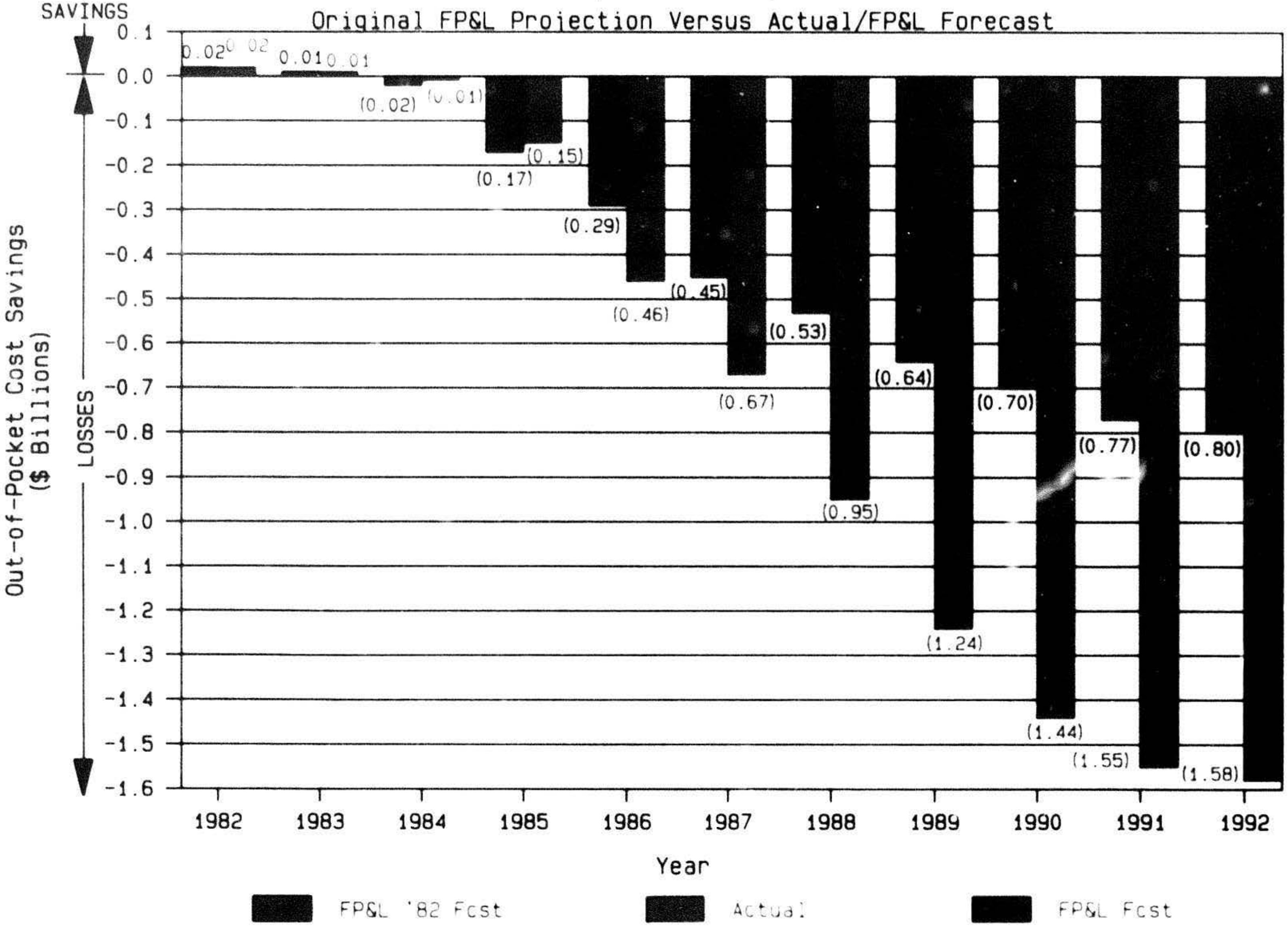


Exhibit JP-1 (   )
Schedule 1
Page 1 of 2

FLORIDA POWER & LIGHT COMPANY

Comparison of Actual and Estimated Future Oil Backout Savings (Losses)
With FP&L's Original Forecast
Excluding Generation Deferral Benefits
(Dollar Amounts in Thousands)

		FP&L's Original Forecast		Actual/Current Estimate		
Line	Year	Annual Net Savings or (Loss)(a) (1)	Accumulated Net Savings or (Loss) (2)	Annual Net Savings or (Loss)(b) (3)	Accumulated Net Savings or (Loss) (4)	Difference in Accumulated Savings or (Loss) (5)
1	1982	$ 16,994	$ 16,994	$ 16,541	$ 16,541	$(453)
2	1983	(8,265)	8,729	(11,458)	5,083	(3,646)
3	1984	(27,030)	(18,301)	(13,807)	(8,724)	9,577
4	1985	(153,386)	(171,687)	(146,220)	(154,944)	16,743
5	1986	(116,868)	(288,555)	(308,114)	(463,058)	(174,503)
6	1987	(159,868)	(448,423)	(202,872)	(665,930)	(217,507)
7	1988	(85,366)	(533,789)	(284,946)	(950,876)	(417,087)
8	1989	(111,007)	(644,796)	(289,081)	(1,239,957)	(595,161)
9	1990	(58,740)	(703,536)	(199,825)	(1,439,782)	(736,246)
10	1991	(65,867)	(769,403)	(107,637)	(1,547,419)	(778,016)
11	1992	(26,017)	(795,420)	(30,908)	(1,578,327)	(782,907)

(a)Late Filed Exhibit No. 6X, Docket No. 840001-EI, Line K - Line Q.

(b)FP&L's response to FIPUG's First Set of Interrogatories, No. 17, Line J - Line N.

FLORIDA POWER & LIG'T COMPANY

Comparison of FP&L's Actual Load Growth and Energy Consumption
With FP&L's Forecast of 1982

		Winter Peak Demand			
		1982 Forecast (MW)	Actual/ Current Forecast (MW)	Difference	
Line	Year	(1)	(2)	Amount (3)	Percent (4)
1	1981/82	10,123	11,345	$ 1,222	-12.1%
2	1982/83	10,523	9,280	(1,243)	-11.8
3	1983/84	10,923	11,050	127	1.2
4	1984/85	11,321	12,533	1,212	10.7
5	1985/86	11,695	12,139	444	3.8
6	1986/87	12,045	10,779	(1,266)	-10.5
7	1987/88	12,382	12,372	(10)	- 0.1
8	1988/89	12,729	13,197	468	3.7
9	1989/90	13,085	13,969	884	6.8
10	1990/91	13,445	14,410	965	7.2
11	1991/92	13,805	14,911	1,106	8.0

Source: (a) J. E. Scalf Testimony filed in Docket No. 820155-EU, Document No. 10, Page 1.

(b) FP&L's Ten Year Power Plant Site Plan: 1989-1998, Page 63.

FLORIDA POWER & LIGHT COMPANY

Comparison of FP&L's Actual Load Growth and Energy Consumption With FP&L's Forecast of 1982

		Summer Peak Demand			
Line	Year	1982 Forecast (MW) (1)	Actual/ Current Forecast (MW) (2)	Difference Amount (3)	Difference Percent (4)
1	1982	10,123	9,893	$(230)	-2.3%
2	1983	10,523	10,676	153	1.5
3	1984	10,923	10,270	(653)	-6.0
4	1985	11,321	10,654	(667)	-5.9
5	1986	11,695	11,022	(673)	-5.8
6	1987	12,945	12,394	349	2.9
7	1988	12,382	12,382	0	0.0
8	1989	12,729	13,084	325	2.8
9	1990	13,085	13,557	472	2.6
10	1991	13,445	13,842	397	3.0
11	1992	13,805	14,280	475	3.4

FLORIDA POWER & LIG·:T COMPANY

Comparison of FP&L's Actual Load Growth and Energy Consumption With FP&L's Forecast of 1982

		Net Energy For Load			
		1982 Forecast (GWh)	Actual/ Current Forecast (GWh)	Difference	
Line	Year	(1)	(2)	Amount (3)	Percent (4)
1	1982	52,110	50,532	$(1,578)	-3.0%
2	1983	54,246	52,500	(1,746)	-3.2
3	1984	56,394	53,149	(3,245)	-5.8
4	1985	58,526	55,998	(2,528)	-4.3
5	1986	60,855	58,266	(2,589)	-4.3
6	1987	63,277	61,616	(1,661)	-2.6
7	1988	65,810	64,716	(1,094)	-1.7
8	1989	68,458	67,960	(468)	-0.7
9	1990	71,210	70,529	(681)	-1.0
10	1991	74,082	72,573	(1,509)	-2.0
11	1992	76,737	74,843	(1,894)	-2.5

FLORIDA POWER & LIGHT COMPANY

Comparison Between Forecast and Actual/Current Forecast of Coal-by-Wire Energy Purchases

Line	Year	Forecast Annual (1)	Forecast Accumulated (2)	Actual/Current Forecast Annual (3)	Actual/Current Forecast Accumulated (4)	Difference Amount (5)	Difference Percent (6)
1	Oct-Dec 1982	1,201	1,201	1,196	1,196	(5)	- 0.4%
2	1983	6,595	7,796	5,364	6,560	(1,236)	-15.9
3	1984	6,642	14,438	7,587	14,147	(291)	- 2.0
4	1985	13,177	27,615	15,170	29,317	1,702	6.2
5	1986	13,293	40,908	9,011	38,328	(2,580)	- 6.3
6	1987	13,951	54,859	16,378	54,706	(153)	- 0.3
7	1988	13,996	68,855	11,212	65,918	(2,937)	- 4.3
8	1989	14,169	83,024	11,533	77,451	(5,573)	- 6.7
9	1990	14,303	97,327	15,932	93,383	(3,944)	- 4.1
10	1991	14,314	111,641	16,834	110,217	(1,424)	- 1.3
11	Jan-Mar 1992	3,496	115,137	3,933	114,150	(987)	- 0.9

Source: Forecast - E. L. Hoffman/J. E. Scalf, Late Filed Exhibit No. 6X, Docket No. 840001-EI, Line B.
Oct-Dec 1982 Forecast - J. E. Scalf, Docket No. 820001-EU, No. 2.

Actual - FP&L's First Set of Interrogatories, Docket No. 890148-EI, No. 17, Page 2.

FLORIDA POWER & LIGHT COMPANY

Comparison Between Forecast and Actual/Current Forecast of Firm Coal-by-Wire Capacity Purchases

		Coal-by-Wire Capacity		Difference	
Line	Year	Forecast (1)	Actual/Current Forecast (2)	Amount (MW) (3)	Percent (4)
1	1983	350	353	3	0.9%
2	1984	650	661	11	1.7
3	1985	1,700	1,700	-	-
4	1986	1,700	1,700	-	-
5	1987	2,000	2,000	-	-
6	1988	2,000	2,000	-	-
7	1989	2,000	2,000	-	-
8	1990	2,000	2,000	-	-
9	1991	2,000	2,000	-	-
10	1992	2,000	2,000	-	-

Source: Forecast - E. L. Hoffman/J. E. Scalf, Late Filed Exhibit No. 6X, Docket No. 840001-EI, Line S.
Oct-Dec 1982 Forecast - J. E. Scalf, Docket No. 820001-EU, No. 2.

Actual - FP&L's First Set of Interrogatories, Docket No. 890148-EI, No. 17, Page 2.

FLORIDA POWER & LIGHT COMPANY

Comparison of FP&L's Actual Composite Oil Prices, or 1988 Estimated Future Composite Oil Prices, With Prices Forecast in 1982

				Difference	
Line	Year	Forecast (a) (1)	Actual or '88 Forecast (2)	$/Bbl (3)	As Percent of Forecast (4)
1	1982	26.41	27.14(b)	0.73	2.8%
2	1983	26.56	26.95(b)	0.39	1.5%
3	1984	28.20	28.36(b)	0.16	0.6%
4	1985	28.93	25.83(b)	- 3.10	-10.7%
5	1986	32.12	14.67(b)	-17.45	-54.3%
6	1987	41.62	18.42(b)	-23.20	-55.7%
7	1988	51.81	14.38(c)	-37.43	-72.2%
8	1989	55.41	21.91(d)	-33.50	-60.5%
9	1990	59.71	23.40(d)	-36.31	-60.8%
10	1991	64.27	25.59(d)	-38.68	-60.2%
11	1992	68.87	28.30(d)	-40.57	-58.9%

Notes: (a)From M. C. Cook Testimony, Docket No. 820155-EU, Document No. 5, Page 1.

(b)FP&L 1987 Financial and Statistical Report (Residual Oil)

(c)FP&L Fuel Adjustment Filings

(d)FP&L Filing in Docket No. 880004-EU, Form 1.2 (0.7% Sulfur Content)

Exhibit JP-1 (   )
Schedule 5

FLORIDA POWER & LIGHT COMPANY

Comparison Between the Cost of Oil-Fired Generation and Coal-By-Wire Energy Purchases (¢/kWh)

Line	Recovery Period	Oil-Fired Generation (1)	Coal-By-Wire Purchases (2)	Differential Amount (3)	Differential Percent (4)
1	Oct '82 - Mar '83	4.28¢	2.53¢	1.75¢	41%
2	Apr '83 - Sep '83	4.34	2.89	1.45	33%
3	Oct '83 - Mar '84	4.62	2.81	1.81	39%
4	Apr '84 - Sep '84	4.69	2.93	1.75	37%
5	Oct '84 - Mar '85	4.90	2.94	1.96	40%
6	Apr '85 - Sep '85	4.09	2.92	1.16	28%
7	Oct '85 - Mar '86	3.69	2.49	1.20	33%
8	Apr '86 - Sep '86	2.12	2.78	(0.67)	-32%
9	Oct '86 - Mar '87	2.27	2.28	(0.01)	-0%
10	Apr '87 - Sep '87	2.92	2.44	0.48	17%
11	Oct '87 - Mar '88	2.62	2.15	0.47	18%
12	Apr '88 - Sep '88	2.25	2.31	(0.06)	-3%
13	Oct '88 - Mar '89	2.26	2.01	0.24	11%

Source: FP&L's Fuel Adjustment and Oil Backout Final True-Up filings.

FLORIDA POWER & LIGHT COMPANY

Actual Summer Peak Reserve Margins 1982 - 1988

Line	Year	Total Capacity Includes Load Control and Purchases (MW)	Summer Peak Load (MW)	Reserve Margin Amount (MW)	Reserve Margin Percent
		(1)	(2)	(3)	(4)
1	1982	12,758	9,983	2,775	28%
2	1983	12,334	10,676	1,658	16
3	1984	14,130	10,270	3,860	38
4	1985	14,545	10,654	3,891	37
5	1986	15,027	11,022	4,005	36
6	1987	15,540	12,394	3,146	25
7	1988	16,089	12,382	3,707	30

Source: FP&L's Ten Year Power Plant Site Plan: 1989-1998, Page 66.

FLORIDA POWER & LIGHT COMPANY

Actual Winter Peak Reserve Margins 1982/83 to 1988/89

Line	Year	Total Capacity Includes Load Control and Purchases (MW)	Winter Peak Load (MW)	Reserve Margin Amount (MW)	Reserve Margin Percent
		(1)	(2)	(3)	(4)
1	1982/83	12,633	9,280	3,353	36%
2	1983/84	13,907	10,384	3,517	34
3	1984/85	15,739	12,533	3,206	26
4	1985/86	15,730	12,139	3,591	30
5	1986/87	15,710	10,779	4,931	46
6	1987/88	16,055	12,372	3,683	30
7	1988/89	16,655	13,059	3,596	28

Source: FP&L's Ten Year Power Plant Site Plan: 1989-1998, Page 67.

FLORIDA POWER & LIGHT COMPANY

Projected Reserve Margins At Time of Summer Peak
With and Without Coal-By-Wire Capacity

Line	Year	With Coal-By-Wire Margin (MW) (1)	With Coal-By-Wire Percent of Peak (2)	Without Coal-By-Wire Margin (MW) (3)	Without Coal-By-Wire Percent of Peak (4)
1	1989	3,365	26%	1,298	10%
2	1990	3,070	23%	1,070	8%
3	1991	2,978	22%	978	7%
4	1992	2,920	21%	920	7%
5	1993	3,085	22%	1,785	12%
6	1994	2,919	20%	1,969	13%
7	1995	3,031	20%	2,131	14%
8	1996	3,714	24%	2,814	18%
9	1997	3,392	22%	2,492	16%
10	1998	3,020	19%	2,120	13%

Source: FP&L Ten Year Power Plant Site Plan: 1989-1998.

FLORIDA POWER & LIGHT COMPANY

Projected Reserve Margins At Time of Winter Peak With and Without Coal-By-Wire Capacity

Line	Year	With Coal-By-Wire Margin (MW) (1)	With Coal-By-Wire Percent of Peak (2)	Without Coal-By-Wire Margin (MW) (3)	Without Coal-By-Wire Percent of Peak (4)
1	1988-89	3,596	28%	1,546	12%
2	1989-90	3,162	23%	1,162	8%
3	1990-91	2,919	21%	919	6%
4	1991-92	2,664	18%	664	5%
5	1992-93	2,104	14%	437	3%
6	1993-94	2,936	19%	1,636	11%
7	1994-95	3,004	19%	2,054	13%
8	1995-96	3,222	20%	2,322	14%
9	1996-97	3,845	23%	2,945	18%
10	1997-98	3,485	21%	2,585	15%

Source: FP&L Ten Year Power Plant Site Plan: 1989-1998.

FLORIDA POWER & LIGHT COMPANY

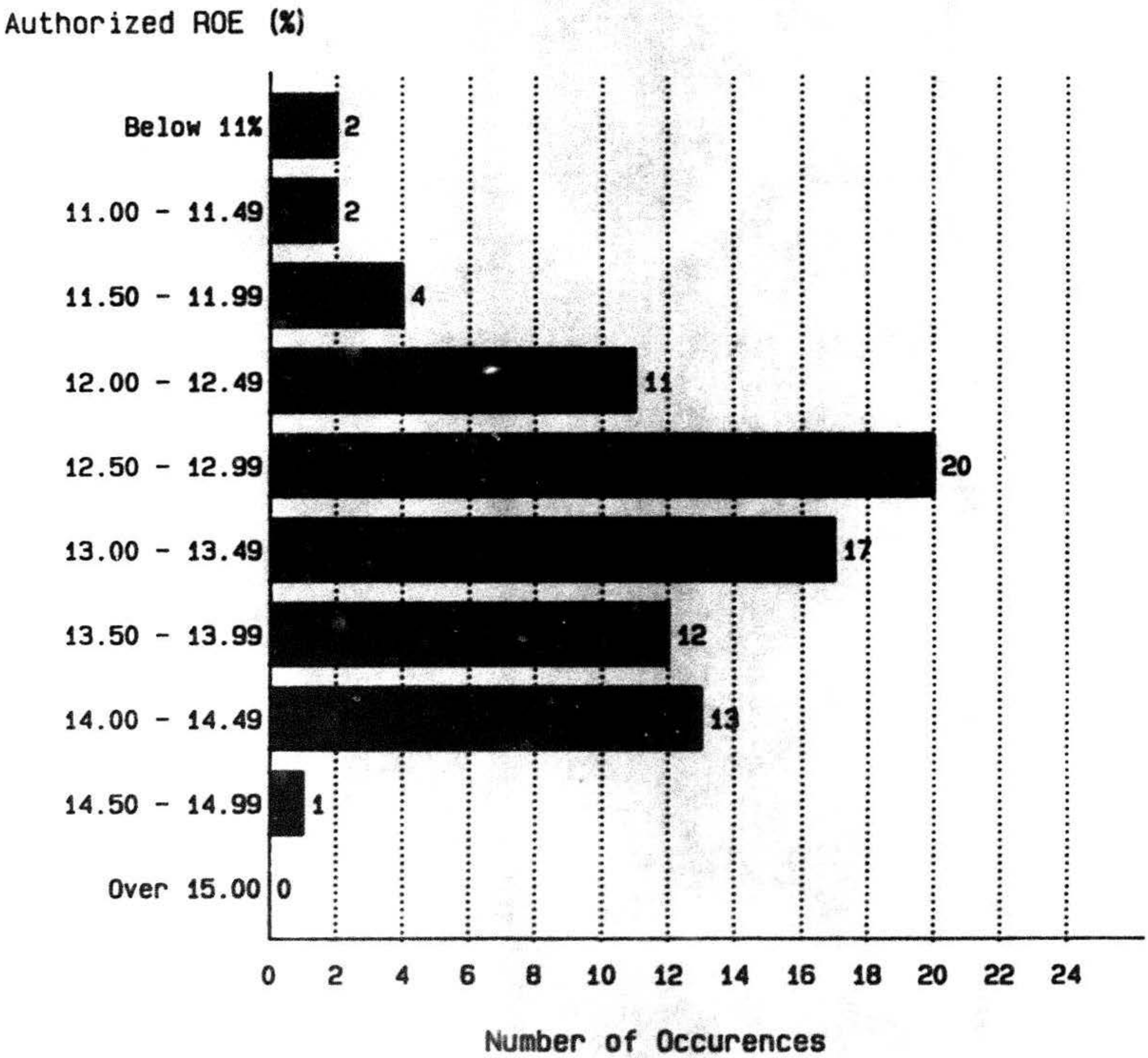
Comparison of Returns on Equity

Line	Description	Percent
	FP&L:	
1	Oil Backout	15.6 %
2	Income Tax Savings Refund	13.6 %
3	FPC (Settlement)	12.6 %
	Median of Allowed Returns by Regulatory Commissions:	
4	1987	12.9 %
5	1988	13.0 %
6	1989 through March 3, 1989	12.8 %
7	FERC Benchmark	12.44%

Exhibit JP-1 (   )
Schedule 9

FLORIDA POWER & LIGHT COMPANY

Analysis of Recently Authorized Returns on Equity



Source: Public Utilities Fortnightly,
1987, 1988, and 1989 Issues.

FLORIDA POWER & LIGHT COMPANY

Comparison Between the Production/Transmission Plant and Energy Allocation Factors Applicable to the GSLD and CS Rate Classes

Line	Description	GSLD/CS as a Percent of Total Retail
1	Non-Nuclear Production/Transmission Allocation Factor*	14.3%
	Energy Sold	
2	At the Meter	18.3%
	Difference Between Cost/Revenue Responsibility:	
3	Amount	4.0%
4	Percent	22%

*Twelve Coincident Peak and One-Thirteenth Average Demand method.

Source: Data from Docket No. 830465-EI.

Exhibit JP-i ( )
Schedule 11

FLORIDA POWER & LIGHT COMPANY

Recovery of Capac'ty Deferral Savings through the OBCRF

Line	Recovery Period	2/3 of Net Savings Taken (000)	Oil Backout Cost Recovery* (000)	Retail Sales (MWh)	2/3 of Net Savings Taken: As a Percent of OBCR	2/3 of Net Savings Taken: Cents per kWh Sold
		(1)	(2)	(3)	(4)	(5)
	1987					
1	April-September	$ 11,292	$ 206,463	30,314,869	5.5%	0.037¢
	1988					
2	October-March	53,903	212,663	26,333,896	25.3	0.205
3	April-September	24,514	191,462	31,283,301	12.8	0.078
	1989					
4	October-March	93,887	262,754	28,627,696	35.7	0.328
5	April-September	101,576	291,697	33,345,054	34.8	0.305
6	Total	$285,172	$1,165,039	149,904,816	24.5%	0.190¢
7	Total Through March, 1989	$183,596	$ 873,342	116,559,762	21.0%	0.158¢

*Excluding Add-on Revenue Taxes.

Source: FP&L's Oil Backout Filings; Final True-Up through March, 1989; projected for April through September, 1989.

Exhibit JP-1 (   )
Schedule 12

FLORIDA POWER & LIGHT COMPANY

Estimates of the Direct Cost of a 700 MW Pulverized Coal Station

Line	Date of Estimate	Reference (1)	Direct Cost ($/kW) (2)	In-Service Date (3)
1	February 1983	(a)	$ 961	1982
2	October 1983	(b)	1,000	1983
3	February 1984	(c)	1,200	1983
4	September 1985	(d)	1,050	1985
5	July 1986	(e)	1,009	1985
6	September 1986	(f)	1,025	1986
7	September 1988	(g)	1,128	1988
8	Martin Units 3 and 4	(h)	$1,339	1987/1989

(a)Assumptions to 1983 Annual Planning Workshop

(b)Letter to Robert Trapp from Karl Wieland

(c)Analysis of Timing and Feasibility of Generating Technologies, FP&L System Planning Department

(d)FP&L Filing in Docket No. 850004-EU

(e)FP&L Energy Capacity Study, 1986-2000

(f)FP&L Generation Planning Document filed in Docket No. 860004-EU

(g)FP&L Generation Planning Document filed in Docket No. 880004-EU

(h)Testimony of D. L. Babka, Document No. 2 filed in Docket No. 890001-EI (January 13, 1989)

FLORIDA POWER & LIGHT COMPANY

Revenue Requirement Effect of the Income Tax Saving Rule
9.22% Stipulated Rate of Return
(Year Ended December 31, 1987)

Line	Description	Adjusted Per FP&L (000) (1)	Adjusted Including Oil Backout (000) (2)
1	Change in Net Operating Income Due to Tax Rate Change	$44,099.3	$46,992.3
2	Difference Between NOI at New Tax Rate and NOI at the Stipulated Rate of Return(a)	$29,659.5	$33,429.5
3	Revenue Requirement Impact of the Lesser of Line 1 and Line 2(b)	$53,250.5	$60,019.2

(a)9.22% Rate of Return excluding Oil Backout
9.31% Rate of Return including Oil Backout (Page 3)

(b)Revenue Expansion Factor of 1.795395

FLORIDA POWER & LIGHT COMPANY

Earned Rate of Return Excluding and Including Oil Backout
Investment, Revenues and Expenses
(Year Ended December 31, 1987)

Line	Description	Adjusted Per FP&L (000) (1)	Oil Backout (000) (2)	Adjusted Including Oil Backout (000) (3)
	Old Tax Rate			
1	Operating Income	$ 618,648.7	$ 34,280.2	$ 652,928.9
2	Rate Base	$6,866,469.2	$289,792.1	$7,156,261.3
3	Rate of Return	9.010%	11.829%	9.124%
	New Tax Rate			
4	Operating Income	$ 662,748.0	$ 37,173.2	$ 699,921.2
5	Rate Base	$6,866,469.2	$289,792.1	$7,156,261.3
6	Rate of Return	9.652%	12.828%	9.781%

Source: FP&L Filing pursuant to Section 25-14:003, F.A.C. dated February 29, 1988.

FLORIDA POWER & LIGHT COMPANY

Revised Capital Structure and Stipulated Cost of Capital Including the Oil Backout Investment (Year Ended December 31, 1987)

Line	Capitalization	Amount (1)	Percent (2)	Cost (3)	Return (4)
1	Long-Term Debt	$2,458,375,199	34.35%	10.07%	3.46%
2	Short-Term Debt	26,280,492	0.37	6.77	0.02
3	Preferred	510,545,977	7.14	8.80	0.63
4	Common Equity	2,282,628,540	31.90	13.60	4.34
5	Customer Deposit	164,176,678	2.29	8.06	0.18
6	Deferred Income Taxes	1,286,668,604	17.98	0.00	0.00
7	Tax Credit - Zero Cost	4,362,082	0.06	0.00	0.00
8	Tax Credit - Weighted Cost	423,223,694	5.91	11.48%	0.68
9	Total	$7,156,261,326	100.00%		9.31%