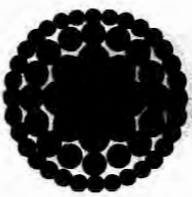


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**Florida Power**  
CORPORATION

**JAMES A. MCGEE**  
SENIOR COUNSEL

August 26, 1997

**Ms. Blanca S. Bayó, Director**  
**Division of Records and Reporting**  
**Florida Public Service Commission**  
**2540 Shumard Oak Boulevard**  
**Tallahassee, Florida 32399-0830**

**Re: Docket No. 98080RQ**

Dear Ms. Bayó:

Enclosed for filing in the subject docket are an original and fifteen copies of Direct Testimony and Exhibits of Lee G. Schuster on behalf of Florida Power Corporation.

Please acknowledge your receipt of the above filing on the enclosed copy of this letter and return to the undersigned. Also enclosed is a 3.5 inch diskette containing the above-referenced document in WordPerfect format. Thank you for your assistance in this matter.

- ACK
- AFA
- APP
- CAF
- CMU
- CTB
- EAG
- LEG
- LHI
- OFC
- RCR
- ST
- WFS
- OTH

*Stallcup*

Very truly yours,

**James A. McGee**

**JAM/lp**  
**Enclosures**

**cc: Parties of Record**

*3 tags*

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DIVISION OF RECORDS

DOCUMENT NUMBER-DATE

**08665 AUG 27 97**

**Docket No. 961184-EQ**  
**CERTIFICATE OF SERVICE**

**I HEREBY CERTIFY that a true copy of the enclosed Direct Testimony and Exhibits of Lee G. Schuster on behalf of Florida Power Corporation has been furnished to the following individuals by U.S. Mail this 26th day of August 1997.**

**Wm. Cochran Keating IV, Esquire  
Florida Public Service Commission  
2540 Stannard Oak Boulevard  
Tallahassee, FL 32399-0830**


**Roger Yott, P.E.  
Air Products & Chemicals, Inc.  
7210 Hamilton Boulevard  
Allentown, PA 18195**

**Steel, Hector & Davis, Esqs.  
Matthew Childs, Esquire  
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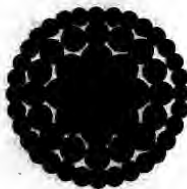
**J. Roger Howe, Esquire  
Office of the Public Counsel  
111 West Madison Street, Room 182  
Tallahassee, FL 32399-1400**

**Debra Swin, Esquire  
Legal Environmental Assistance  
Foundation, Inc.  
1115 N. Gadsden Street  
Tallahassee, FL 32303**

**Orlando Cogen Limited  
8275 Exchange Road  
Orlando, FL 32809**

  
\_\_\_\_\_  
Attorney

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FILE COPY



**Florida  
Power**  
CORPORATION

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**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET No. 981104-EQ**

**In Re: Petition for Approval of Early  
Termination Amendment of Negotiated  
Qualifying Facility Contract with  
Orlando Cogen Limited, Ltd. by  
Florida Power Corporation**

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**DIRECT TESTIMONY AND  
EXHIBITS OF**

**LEE G. SCHUSTER**

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**For Filing August 27, 1997**

DOCUMENT NUMBER DATE

**00665 AUG 27 5**

FPSC-RECORDS/REPORTING

**FLORIDA POWER CORPORATION**

**DOCKET No. 961184-EQ**

**DIRECT TESTIMONY OF  
LEE G. SCHUSTER**

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

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

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

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

8  
9 **Q. Would you please describe your educational background and work**  
10 **experience?**

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

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

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

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

21  
22 **Q. What is the purpose of your testimony and how is it organized?**

23 **A. The purpose of my testimony is to explain FPC's position regarding the**  
24 **disputed issues of fact and policy identified in FPC's Petition on**  
25 **Proposed Agency Action filed February 17, 1997. In addition, I will**

1 explain the justification for approval of the Orlando Cogen Limited, Ltd.  
2 (OCL) contract buyout as requested in FPC's original petition filed  
3 October 1, 1996, and the benefits that will result from this transaction.

4 My testimony is divided into the following sections:

- 5 I. Consistency of the OCL Bid with FPC's Request for Proposals
- 6 II. Staff's Cost Effectiveness Sensitivity Analysis Cases
- 7 III. Effect of the Buyout Proposal on Intergenerational Fairness
- 8 IV. Benefits of the OCL Contract Buyout
- 9 V. Conclusions

10  
11 I. Consistency of the OCL Bid with FPC's Request for Proposals

12  
13 Q. Do you agree with alternative Staff conclusion in the recommendation  
14 issued on December 28, 1996 that the OCL contract buyout  
15 contradicts the "primary" objectives of FPC's reverse auction bid  
16 solicitation (RFP)?

17 A No, I do not. The quotations from FPC's RFP that Staff asserts state  
18 the "objectives" were taken out of context from the RFP document and  
19 are not objectives of the RFP. When each of these statements are  
20 placed into proper context it becomes clear that they are not primary  
21 objectives of the RFP and that FPC's petition violates neither these  
22 statements nor the true objectives of the RFP.

23  
24 Q. The first "primary objective" quoted by staff was "Bids that provide net  
25 benefits (revenue requirement reductions) to customers sooner rather

1 than later will be given preference." What is the actual context of this  
2 statement in the RFP?

3 A. This statement was taken from the section of the RFP that describes  
4 how FPC will evaluate and compare bids (Exhibit No. \_\_\_ (LGS-2), page  
5 6). The statement in question is actually the second of two bid  
6 evaluation criteria and it expresses a preference for bids with near term  
7 benefits when two or more bids are available for comparison. Staff's  
8 interpretation of this statement fails in two respects. First, the context  
9 makes clear that the statement is not a primary objective of the RFP  
10 process. Second, the statement refers to a preference between bids,  
11 not an absolute test which a single bid can be subjected to and pass or  
12 fail. Given that only a single successful bid, namely the OCL buyout  
13 transaction, resulted from the RFP process, this statement obviously  
14 cannot be used as a criteria to accept or reject the OCL bid.

15  
16 Q. The second "primary objective" quoted by staff was "Bids that result  
17 in a near term increase of capacity payments may be limited to an  
18 aggregate net present value rate impact of \$17.7 million, the amount  
19 of the 1985 over-recovery from the revenue decoupling experiment."  
20 What is the actual context of this statement in the RFP?

21 A. This statement was also taken from the section of the RFP that  
22 describes how FPC will evaluate bids (Exhibit No. \_\_\_ (LGS-2), page 6).  
23 The statement was intended to provide general information to bidders  
24 and not to describe an absolute limit on acceptable bids. This was  
25 accomplished by clearly stating that the amount of bids accepted

1           **"...may be limited..." and by the following sentence of the RFP which**  
2           **states that FPC may choose to pursue bids with the FPSC that exceed**  
3           **\$17.7 million. FPC did elect to pursue the OCL bid and filed a petition**  
4           **with the Commission for approval of the OCL buyout transaction.**  
5           **Staff's interpretation of this statement falls in two respects. First, the**  
6           **context makes clear that the statement is not a primary objective of the**  
7           **RFP process. Second, Staff unaccountably describes the OCL**  
8           **transaction as contradicting this statement in the face of the plain**  
9           **language of the RFP and FPC's action in filing the petition.**

10  
11           **Q. In FPC's opinion, what were the primary objectives of the RFP against**  
12           **which the OCL buyout should be judged?**

13           **A. FPC made the following statement on pages 1 and 5 of the RFP:**  
14           **"Proposals will be judged according to their ability to reduce the long**  
15           **term cost of purchases under existing OF contracts in a manner that is**  
16           **cost effective to FPC's customers." (Exhibit No. \_\_\_ (LGS-2)) FPC**  
17           **described a typical scenario that may result from the RFP process by**  
18           **stating that it was soliciting proposals for capacity payment buy downs**  
19           **which "would result in a rescheduling of capacity payments over the**  
20           **remaining life of existing purchase agreements, resulting in higher**  
21           **capacity payments in the near term and lower capacity payments in the**  
22           **future." (Exhibit No. \_\_\_ (LGS-2), page 1)**

23  
24           **Q. Is the OCL buyout consistent with these objectives of the RFP?**



1 A. Yes. The OCL transaction is typical of the type of proposal that the  
2 RFP process was designed to elicit from its inception. As such, it is  
3 fully consistent with the objectives of the RFP.

4  
5 Q. Does the RFP document provide any further evidence that the OCL  
6 contract buyout bid is consistent with the objectives of the RFP?

7 A. Yes. The instructions to bid respondents (Exhibit No. \_\_\_ (LGS-2), page  
8 8) describes contract buyouts as one type of bid which FPC will give  
9 full consideration to and describes such contract buyouts as follows:  
10 "Contract buy outs may be designed to partially or completely buy out  
11 the existing contract. Partial buy outs can be based on a reduction in  
12 the term of the contract, a reduction in committed capacity, or other  
13 changes in the existing terms of the contract." The OCL contract  
14 buyout bid is a proposal to shorten the term of the contract by ten  
15 years and, as such, it is perfectly consistent with the RFP's definition  
16 of a contract buyout.

17  
18 **II. Staff's Cost Effectiveness Sensitivity Analysis Cases**

19  
20 Q. The alternative Staff analysis, which was incorporated into the  
21 Commission's Proposed Agency Action Order, states that the buyout's  
22 cost-effectiveness was determined using the fuel price forecast from  
23 FPC's 1988 Ten Year Site Plan (TYSP) filing, specifically the Base Case  
24 and High Case fuel forecasts. (Exhibit No. \_\_\_ (LGS-1), page 6) Do you  
25 agree with this statement?

1 **A. No. Staff did not use fuel price forecast data from FPC's TYSP filing**  
2 **for the time period relevant to the evaluation of the OCL contract**  
3 **buyout (2014 through 2023). The fuel price forecast data contained**  
4 **in FPC's 1996 TYSP filing extends only to 2005. My Exhibit No. \_\_\_\_**  
5 **(LGS-3) contains the fuel price forecast data from pages 14 through 19**  
6 **of FPC's TYSP Supplemental Information submitted to Staff on April**  
7 **26, 1996.**

8  
9 **Q. What was the source of the fuel price forecast used by Staff to**  
10 **determine the buyout's cost effectiveness and create the sensitivity**  
11 **analysis cases purported to be based on FPC's TYSP fuel forecast**  
12 **data?**

13 **A. Based on available information, it appears that the fuel price forecasts**  
14 **mistakenly described by Staff as FPC TYSP fuel price forecasts were**  
15 **created by Staff for the purpose of evaluating the OCL contract buyout.**

16  
17 **Q. What information is available to determine the source and nature of the**  
18 **fuel price forecasts used to perform Staff's evaluation of the buyout?**

19 **A. Staff has provided a copy of the Lotus spreadsheet file used to prepare**  
20 **the sensitivity analysis cases included in the alternative Staff**  
21 **recommendation. This spreadsheet file contains the fuel price forecast**  
22 **used in the Staff evaluation. The method used by Staff to create a**  
23 **fuel price forecast for 2006-2023 was documented in this spreadsheet**  
24 **file. Staff used the coal and natural gas high band fuel prices for 2005**  
25 **from FPC's TYSP as the starting point for its forecast. The price**

1 forecast for 2006 through 2023 for each scenario was created by using  
2 a constant price escalation rate selected by Staff.

3  
4 Q. In contrast to the price forecasting assumptions used by Staff, was  
5 information available from FPC to extend the subject fuel price  
6 forecasts beyond 2005?

7 A. Yes. FPC's 1996 TYSP filing was based on FPC's Fuel Cost  
8 Projection (FCP) 9501 forecast. The FCP 9501 natural gas forecast  
9 specified an escalation rate equal to 85% of the forecasted inflation  
10 rate to be used after 2005. The escalation assumption for coal prices  
11 after 2005 was equal to 67% of the forecasted inflation rate.

12  
13 Q. How do the fuel price forecasts used by Staff compare to FPC's FCP  
14 9501 high band fuel price forecast during 2014-2023, the time period  
15 relevant to the OCL buyout?

16 A. The fuel price forecasts used by Staff are substantially different from  
17 FCP 9501.

18  
19 Q. If Staff had, in fact, used Florida Power's fuel forecast FCP 9501 to  
20 perform the cost-effectiveness sensitivity cases (summarized at page  
21 8 of Exhibit No. \_\_\_ (LGS-1)) how would the savings for the cases be  
22 affected?

23 A. The sensitivity analysis cases supporting Staff's alternative  
24 recommendation on the OCL buyout have been reproduced by FPC and  
25 the results of this analysis are summarized in my Exhibit No. \_\_\_ (LGS-

1 4). Column (1) contains the net present value (NPV) savings from the  
2 Staff recommendation dated December 26, 1996.

3 Column (2) shows the results of an independent reproduction of  
4 the Staff results by FPC. The NPV results were derived by applying  
5 Staff's fuel price forecast assumptions to the original Excel  
6 spreadsheet used by FPC to file Exhibit D of the petition for approval  
7 of the OCL contract buyout. In this manner, it was possible to exactly  
8 reproduce the results for seven of the eight cases. There is an  
9 unexplained discrepancy of \$1,095,000 in the result for case #5.

10 Column (3) shows the results of reproducing Staff's cases using  
11 FPC's FCP 9501 fuel forecast rather than Staff's fuel forecast. Cases:  
12 3, 4, 7 and 8 are affected by this difference in assumptions. Using  
13 FPC's FCP 9501 fuel forecast results in positive NPV savings for all of  
14 Staff's cases.

15  
16 Q. Was it necessary for Staff to independently create the sensitivity  
17 analysis cases contained in the alternative Staff analysis?

18 A. No. Prior to issuing the recommendation Staff requested and FPC  
19 provided the results for a number of sensitivity analysis cases for the  
20 buyout (see Exhibit No. \_\_\_ (LGS-5)). The primary Staff  
21 recommendation found that the assumptions and methodology used by  
22 FPC in its analysis were reasonable and appropriate and relied on FPC's  
23 results to conclude that "Further, according to staff's sensitivity  
24 analysis of the buyout, the NPV remains positive, \$23.3 million, for a

1       worst case scenario which employs the high band of FPC's most  
2       recent fuel forecast."

3  
4       **Q. Do you agree with the statement in the alternative Staff**  
5       **recommendation that the scenarios used in its sensitivity analysis**  
6       **represent reasonable scenarios for the future?**

7       **A. No, I do not. Apart from discrepancies in the values used in Staff's**  
8       **fuel forecast discussed above, I have two primary disagreements with**  
9       **the scenarios prepared by Staff.**

10  
11       **Q. What is the nature of your first disagreement with the scenarios**  
12       **prepared by Staff?**

13       **A. The alternative Staff recommendation departs from the standard,**  
14       **accepted practice in forecasting to use the most recent and accurate**  
15       **forecast assumptions to perform its evaluation. In response to a Staff**  
16       **question (see Exhibit No. \_\_\_ (LGS-5)), FPC explained that FPC's Ten**  
17       **Year Site plan was based on FPC's 9501 fuel forecast issued on May**  
18       **1, 1995 and indicated that the 9501 forecast had been superseded by**  
19       **the 9601 fuel forecast issued on January 16, 1996 and subsequently**  
20       **by the 9603 fuel forecast issued on October 28, 1996. Subsequent to**  
21       **its filing on October 1, 1996 FPC provided an updated economic**  
22       **evaluation and sensitivity cases based on fuel forecast 9603.**

23       Simply put, the 9501 fuel forecast had been replaced with a new  
24       forecast and was no longer the most recent and accurate basis for  
25       planning. Although the primary Staff analysis relied on results based

1 on current forecast assumptions, the alternative Staff analysis  
2 nevertheless reverted to the use of the obsolete 9501 fuel forecast in  
3 its sensitivity analysis, and did so without providing any justification for  
4 this action.

5  
6 **Q. What is the nature of your second disagreement with the scenarios  
7 prepared by Staff?**

8 **A. The alternative Staff recommendation departs from standard  
9 forecasting and evaluation practices in a second important respect. A  
10 proper sensitivity analysis includes an evaluation of the expected value  
11 for a forecast as well as the variation or range of uncertainty around  
12 the expected value. Conclusions should be based on a balanced  
13 assessment of both risks and benefits, not based exclusively on risks.**

14 The alternative Staff recommendation based three of its seven  
15 sensitivity cases on the TYSP High Case fuel forecast and none on the  
16 TYSP Low Case fuel forecast. In addition, the scenarios based on the  
17 TYSP High Case fuel price forecast were characterized by Staff as  
18 being "reasonable scenarios for the future." It was not disclosed that  
19 the TYSP High Case fuel forecast is defined as having a probability of  
20 25% versus a probability of 50% for the Base Case. It also was not  
21 disclosed that the TYSP Low Case fuel forecast is equally probable with  
22 the High Case (25%) and would have resulted in cases with customer  
23 savings in excess of \$33 million on a net present value basis. For  
24 these reasons, the presentation of results in the alternative Staff  
25 recommendation is misleading. The results of the analysis are biased

1 against the transaction due to the fact that only scenarios that are  
2 adverse to the transaction are included, and the alternative  
3 recommendation is based on only those results.  
4

5 **III. Effect of the Buyout Proposal on Intergenerational Fairness**  
6

7 **Q. Do you agree with the alternative Staff assertion that the OCL**  
8 **transaction violates the goal of intergenerational fairness?**

9 **A. No. The alternative Staff's assertion that the OCL transaction violates**  
10 **the goal of intergenerational fairness is conclusionary and unsupported.**  
11 **Staff neither stated nor provided a reference to an objective definition**  
12 **of intergenerational fairness in its recommendation. As a result, Staff's**  
13 **assertion appears to be based entirely on its subjective opinion of the**  
14 **transaction.**  
15

16 **Q. Did Staff raise the issue of intergenerational fairness as part of its**  
17 **review of FPC's OCL buyout petition prior to issuing its**  
18 **recommendations?**

19 **A. Yes. FPC responded by explaining that opportunities to create savings**  
20 **for customers by buying out or buying down QF contracts, by their**  
21 **nature, exist primarily at the "back end" of the term of existing**  
22 **contracts where those contract costs are at their highest level. A**  
23 **typical transaction might modify or eliminate the terms for the final**  
24 **years of a contract while leaving the near term contract payments**



1 unaffected. The circumstances of both QFs and FPC favor transactions  
2 with this type of deferred timing.

3  
4 **Q. What are the circumstances affecting QFs that favor transactions with**  
5 **deferred timing?**

6 **A. Cogeneration projects typically have obligations to pay off project debt**  
7 **financing in a shorter time period than the term of the power purchase**  
8 **agreement. Due to the restrictive terms of these loan agreements, the**  
9 **QF generally has the flexibility to consider transactions such as contract**  
10 **buydowns and buyouts only after the project loan has been retired. In**  
11 **the case of OCL, the proposed transaction affects 2014-2023, after**  
12 **the project loan is retired in 2010.**

13 It is unlikely that a buyout or buydown transaction could be  
14 successful if it overlapped with the period when project debt remained  
15 outstanding. In fact, another bid in FPC's RFP process failed for  
16 exactly this reason. The Tiger Bay project proposed a buyout of the  
17 smallest of its five purchased power agreements with FPC (the 6  
18 megawatt Timber 2 contract) as of December 31, 1996. This  
19 transaction failed due to problems encountered in obtaining lender  
20 approval.

21  
22 **Q. What are the circumstances affecting FPC that favor transactions with**  
23 **deferred timing?**

24 **A. The capacity payment escalation rates in FPC's QF contracts will result**  
25 **in a widening gap over time between the cost of these contracts and**



1 FPC's generation alternatives. As a result, the problem that FPC seeks  
2 to solve is most severe and the opportunity for reductions in the cost  
3 of power are greatest at the "back end" of these QF contracts.  
4 Moreover, the opportunity to create customer savings exists largely  
5 because some QFs are willing to accept current buyout payments that  
6 are less than the nominal capacity and energy payments which would  
7 be paid in the future if the contract remained unchanged. It is not  
8 possible to create substantial savings by altering near term payments  
9 to QFs because potential risk factors and the time value of money do  
10 not create a sufficient opportunity to discount the face value of the  
11 payments.

12  
13 **Q. Did FPC perform an analysis to demonstrate the potential effect of the**  
14 **OCL buyout on intergenerational fairness?**

15 **A. Yes. In response to a Staff request, FPC compared the OCL buyout**  
16 **transaction to the cost of providing the same capacity and energy to**  
17 **customers from the avoided coal plant using conventional accounting**  
18 **and rate recovery. (See FPC response dated November 22, 1996 to**  
19 **Staff question 3 and attached table contained in Exhibit No. \_\_\_ (LGS-**  
20 **5)) Such a coal plant is a reasonable basis for comparison because the**  
21 **OCL contract is predicated on the assumption that it is avoiding coal-**  
22 **fired generation.**

23 **As shown in the table attached to FPC's response, this analysis**  
24 **demonstrated that the OCL contract buyout had a lower net present**  
25 **value cost in the near term (1993-2001) than the coal alternative and**

1 therefore does not have an objectionable intergenerational impact on  
2 customers in the near term.

3  
4 **Q. What evidence is there that the OCL contract buyout may mitigate**  
5 **existing intergenerational inequity?**

6 **A. In the Staff recommendation dated August 12, 1997 in Docket No.**  
7 **961477-EQ (the Lake Cogen settlement docket) Staff made the**  
8 **following statement regarding the contract buyout included in the Lake**  
9 **Cogen settlement:**

10 "The intergenerational equity issue is unclear in this docket  
11 because cogeneration purchased power contracts have  
12 inverted payment streams to ensure performance in the later  
13 years. Compared to setting base rates using traditional  
14 regulatory accounting, cost recovery of the inverted  
15 cogeneration purchased power payment stream defers to  
16 future customers costs that would have been recovered in  
17 base rates from existing customers. Thus, existing customers  
18 are already paying less than their fair share of cost. For  
19 residential customers, adding an approximately 50 cents per  
20 1000 Kilowatt-hours surcharge until 2009 to recover the  
21 buyout cost helps correct the present intergenerational  
22 inequity." (emphasis added)

23 Staff's analysis of the Lake Cogen transaction applies equally to  
24 the OCL contract buyout, suggesting that the OCL transaction actually

1 mitigates existing intergenerational inequity rather than violating the  
2 goal of intergenerational inequity.

3  
4 **Q. What other actions has FPC taken that relate to the issue of**  
5 **intergenerational fairness?**

6 **A. The bid that OCL originally submitted in the RFP process was for a five-**  
7 **year contract buyout for the period 2019-2023. In an effort to create**  
8 **customer savings sooner, FPC negotiated a ten-year buyout with OCL**  
9 **which would result in customer savings beginning in 2014, five years**  
10 **earlier than OCL's initial proposal.**

11  
12 **IV. Benefits of the OCL Contract Buyout**

13  
14 **Q. What customer savings are expected to result from the OCL contract**  
15 **buyout transaction?**

16 **A. As stated in FPC's October 1, 1998 petition, restructuring the OCL**  
17 **contract is expected to save Florida Power and its customers \$462**  
18 **million (\$33 million net present value) relative to what they would pay**  
19 **with the contract's full 30-year term in effect. The projected savings**  
20 **included in FPC's original petition were based on fuel forecast FCP**  
21 **9601. Based on FPC's most recent long term fuel forecast FCP 9702**  
22 **and an updated forecast for future escalation the savings are now**  
23 **estimated to be \$472 million (\$34.6 million net present value). (See**  
24 **Exhibit No. \_\_\_ (LGS-7))**

1 **Q. How is the buyout transaction expected to achieve these savings?**

2 **A. The basis for the savings were well summarized in the primary Staff**  
3 **recommendation (Exhibit No. \_\_\_ (LGS-1), page 4):**

4 **"Buying out the Contract relieves the obligation to pay \$459**  
5 **million in known capacity costs and a projected \$283.3 million**  
6 **in fuel costs. As mentioned previously, capacity payments in**  
7 **the Contract are based on a 1991 coal-fired avoided unit.**  
8 **Due to technology improvements and low gas prices, those**  
9 **costs are much higher than today's avoided costs. Also, due**  
10 **to the use of the value of deferral method in calculating the**  
11 **capacity payments of the Contract, the highest capacity**  
12 **payments are in the last years of the Contract. The buyout**  
13 **therefore terminates the most expensive part of the Contract."**

14 **The buyout will give FPC the flexibility to provide this capacity and**  
15 **energy to customers at a replacement cost substantially lower than the**  
16 **cost of the OCL contract.**

17  
18 **Q. What effect will these savings have on the cost of the OCL contract**  
19 **during the buyout period?**

20 **A. The transaction is expected to reduce the average cost of power over**  
21 **the last ten years of the contract from 11.0 cents per kWh if provided**  
22 **under the existing contract to an average replacement cost of 3.6 cents**  
23 **per kWh, a reduction of over 67%.**

1 **Q. How does the OCL contract buyout relate to FPC's business**  
2 **objectives?**

3 **A. FPC's objective is to continue to meet the electric needs of its**  
4 **customers at competitive prices. The Company has recognized that the**  
5 **rising cost of its portfolio of cogeneration contracts poses a threat to**  
6 **this objective. As the Commission is well aware, this problem is not**  
7 **unique to FPC but is a national problem confronting many electric**  
8 **utilities. For example, FERC and several state Commissions have gone**  
9 **on record as encouraging utilities to pursue Qualifying Facility (QF)**  
10 **buyouts and restructured contracts to mitigate the onerous cost of QF**  
11 **contracts. As one example of this encouragement, FERC has said,**  
12 **"[We] have encouraged utilities to buy-out (or buy-down) higher-priced**  
13 **fuel contracts in order to substitute lower-priced fuel currently available**  
14 **and we have allowed the recovery of prudently-incurred buy-out/buy-**  
15 **down costs." West Penn Power Company, FERC ¶ 61,485 (1995)**

16 **FPC has taken the initiative to seek solutions to this problem and**  
17 **as a result, the evaluation of the proposed OCL contract buyout should**  
18 **recognize this larger context. FPC's activities have included energy**  
19 **pricing settlements with five QF suppliers which have resulted in**  
20 **reduced costs to customers, with three of these settlements including**  
21 **contract buyouts that shorten the term of the QF contracts. In**  
22 **addition, FPC has completed a buyout of five contracts related to the**  
23 **Tiger Bay QF facility and acquired the facility itself for the benefit of**  
24 **FPC's customers. The Tiger Bay transaction alone is expected to save**



1 customers \$2 to \$2.4 billion (\$384 to \$456 million on a net present  
2 value basis) in the future.

3  
4 **Q. How should the decision to approve the OCL buyout transaction be  
5 viewed in this larger context?**

6 **A. Approval of the OCL buyout will contribute to the solution of FPC's  
7 overall QF cost problem. A decision to disapprove the proposed OCL  
8 buyout transaction is tantamount to a reaffirmation of the existing  
9 contract, a type of contract that has been recognized by FPC, Staff and  
10 the Commission as being a burden to FPC's customers.**

11  
12 **Q. Is it appropriate for the Commission to address the issue of potential  
13 straddle costs as part of its decision regarding the OCL contract  
14 buyout?**

15 **A. No. In the case of the OCL transaction, the effect of reducing future  
16 costs from the level of the contract to FPC's projected avoided cost  
17 during the buyout period 2014-2023 has, for all intents and purposes,  
18 the same effect as eliminating potential straddle costs of a like  
19 amount. Describing the resulting cost reduction as potential straddle  
20 costs does not alter the evaluation of the transaction. However, if the  
21 Commission chooses to address the issue of stranded cost, it is FPC's  
22 opinion that the transaction would eliminate potential straddle costs  
23 in an amount approximately equal to the customer savings due to the  
24 transaction. The analysis supporting the primary Staff recommendation  
25 shared this opinion (see Exhibit No. \_\_\_ (LGS-1), page 4).**

**V. Conclusions**

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**Q. Should the Commission reconsider its decision to disapprove the OCL buyout transaction?**

**A. Yes. In its petition dated February 17, 1997, FPC raised nine disputed issues of fact and policy regarding the alternative Staff recommendation that served as the basis for the Commission's decision. FPC has provided substantial and compelling evidence regarding these issues that, taken together, justify a reconsideration of the Commission's prior decision.**

**Q. Should the OCL contract buyout be approved by the Commission?**

**A. Yes. Restructuring the OCL contract is expected to save Florida Power and its customers \$474 million (\$34.6 million net present value) relative to what they would have paid with the contract's full 30-year term in effect. Approval of the transaction was endorsed by the primary Staff recommendation of December 26, 1996 (Exhibit 1, page 3).**

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

**A. Yes.**

**Exhibit No. \_\_\_ (LSC-1)**

**Staff Recommendation dated December 26, 1996**

**Desklet No. 961184-50**



4

FLORIDA PUBLIC SERVICE COMMISSION  
Capital Circle Office Center • 2540 Shumard Oak Boulevard  
Tallahassee, Florida 32395-0850



MEMORANDUM

December 26, 1996

TO: DIRECTOR, DIVISION OF RECORDS & REPORTING (RAYO) *Ray*

FROM: DIVISION OF ELECTRIC & GAS (HARLOW, DUDLEY, *Harlow, Dudley, Wheeler*)  
 (DRAVER) *CD*  
 DIVISION OF AUDITING AND FINANCE (STALLION, *STALLION, MORINGA*)  
 DIVISION OF LEGAL SERVICES (WAGNER) *RVE For LW*

RE: DOCKET NO. 961184-EQ - FLORIDA POWER CORPORATION -  
 PETITION FOR APPROVAL OF EARLY TERMINATION AMENDMENT TO  
 A NEGOTIATED QUALIFYING FACILITY CONTRACT WITH ORLANDO  
 COGEN LIMITED, LTD.  
 DOCKET NO. 970002-ES - ENERGY CONSERVATION COST RECOVERY  
 CLAUSE

AGENDA: 01/07/97 - REGULAR AGENDA - PROPOSED AGENCY ACTION -  
 INTERESTED PERSONS NOT PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: G:\PSC\REG\MP\961184EQ.RCM

FINAL BACKGROUND

On October 1, 1996, Florida Power Corporation (FPC) filed a petition for approval of an early termination amendment (Amendment) to a Negotiated Contract (Contract) with Orlando Cogen Limited, Ltd. (OCL), a qualifying facility (QF). The Contract was entered into on March 13, 1991. The term of the Contract is 30 years, beginning on January 1, 1994, and expiring December 31, 2023. Committed capacity under the Contract is 79.2 megawatts, with capacity payments based on a 1991 pulverized coal-fired avoided unit. The Amendment terminates the last ten years of the Contract. FPC also requests authorization to recover the buyout costs through the Capacity Cost Recovery clause.

The Commission encouraged FPC and other utilities to negotiate contracts with QFs in lieu of accepting standard offer contracts. The Negotiated Contract between FPC and OCL was originally approved for cost recovery in Order No. 24734, issued July 1, 1991, Docket No. 910401-EQ. The Commission later approved an amendment to the

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13719 DEC 26 96

PSC-RECORDS/REPORTING

**DOCKET NO. 961184-EQ**  
**DECEMBER 26, 1996**

Contract pursuant to a Settlement Agreement between OCL and FPC in Order No. PSC-96-0898-AS-EQ, issued July 12, 1996, Docket No. 960193-EQ.

On March 12, 1996, the Commission issued Order No. PSC-96-0352-FOF-ES in Docket No. 960002-ES, which approved FPC's request to defer crediting a 1996 over-recovery of \$17.7 million associated with its residential revenue decoupling experiment. The purpose of the deferral was to allow FPC to conduct a "reverse auction" which would seek OP capacity payment reductions over time in exchange for an up-front payment. The decoupling over-recovery funds possibly could be used to offset these payments if the Commission believed it was beneficial to the residential ratepayers.

On May 3, 1996, FPC issued a Solicitation for Reverse Auction Bids to its operating OPs with firm capacity and energy payments. FPC indicated in the Solicitation that buydown proposals based on higher discount rates and those which provided net benefits to customers sooner rather than later would be preferred. FPC also stated that bids that result in a near term increase in capacity payments may be limited to an aggregate net present value rate impact of \$17.7 million. However, FPC stated, "in the event that highly attractive bids exceed the \$17.7 million limit, FPC may choose to pursue ways with the FERC to implement such proposals on behalf of its customers."

FPC accepted two of the three bids which were submitted prior to the deadline. However, one bid was subsequently withdrawn when the bidder was unable to obtain lender approval. Negotiations with OCL, the remaining bidder, resulted in the Contract Amendment contained in FPC's petition.

The Amendment provides for a payment to OCL of \$49,405,000 at a rate of \$10.40 per MW-month, in exchange for terminating the last ten years of the Contract. This results in an estimated five year payout period, depending on OCL's performance. FPC requests that cost recovery of the early termination payments be implemented through the Capacity Cost Recovery clause (CCR) beginning in April 1997, as part of the 970002-ES Docket. FPC also requests that the rate impact to residential customers be mitigated by crediting the Energy Conservation Cost Recovery (ECCR) factor with the 1995 revenue decoupling over-recovery balance plus accumulated interest in the 970002-ES Docket.

DOCKET NO. 961184-80  
DECEMBER 26, 1996

### DISTRIBUTION OF ISSUES

**ISSUE 1:** Should the Amendment to the Contract between Florida Power Corporation (FPC) and Orlando Cogen Limited, Ltd. (OCL) be approved for cost recovery?

**PRIMARY RECOMMENDATION:** Yes. Approval of the Amendment provides an estimated \$33 million net present value savings. The Amendment will also mitigate potential straddleable assets, reduce long term liability, and increase FPC's flexibility. (Harlow, Tew)

**ALTERNATIVE RECOMMENDATION:** No. The buyout is inconsistent with the objectives of the reverse auction bid solicitation and will not produce net savings before the year 2019. Furthermore, the buyout's cost-effectiveness appears to be too sensitive to fluctuations in fuel price projections and inflationary assumptions. (Dudley, Stallcup)

**PRIMARY STAFF ANALYSIS:** According to FPC's petition, buying out the last ten years of the Contract will "save Florida Power and its customers \$463 million (\$33 million net present value) relative to what they would have paid with the Contract's full 30-year term in effect." This was calculated by comparing the cost of retaining the Contract (Contract Case) to the cost of the buyout payments plus the current projected replacement costs (Replacement Case). In the Contract Case, capacity payments are specified in the Contract and energy payments are based on FPC's coal forecast for the ten-year period beginning in 2014. The Replacement Case includes the buyout payments in years 1997 through 2001 as well as FPC's projected cost of replacing the Contract's capacity and energy. According to FPC's filing, the Contract Case produces costs of \$742.2 million while the estimated Replacement Case costs, including the \$49.4 million in buyout costs, total \$279.9 million. This represents a customer savings of \$463.4 million or \$33 million in current dollars when discounted by FPC's weighted average cost of capital (8.67 percent). FPC's cost-effectiveness analysis is attached to the recommendation as Attachment A. Staff requested that FPC's analysis be updated to reflect the most recent fuel forecast and economic data. This resulted in a change in the net present value (NPV) benefits for the project to \$30.8 million.

Based on staff's analysis of discovery responses provided by FPC in addition to outside data sources, staff believes the assumptions used in FPC's analysis are reasonable. The methodology used in FPC's analysis was also determined to be appropriate.

DOCKET NO. 961184-BQ  
DECEMBER 26, 1996

As with any long-term forecast, there is a risk that the predicted savings will not materialize. However, staff believes that the probability that customers will benefit from the buyout outweighs these risks. Buying out the Contract relieves the obligation to pay \$459 million in known capacity costs and a projected \$263.3 million in fuel costs. As mentioned previously, capacity payments in the Contract are based on a 1991 coal-fired avoided unit. Due to technological improvements and low gas prices, these costs are much higher than today's avoided costs. Also, due to the use of the value of deferral method in calculating the capacity payments of the Contract, the highest capacity payments are in the last years of the Contract. The buyout therefore terminates the most expensive part of the Contract. Today's ratepayers have enjoyed the lower cost years of the Contract. Further, according to staff's sensitivity analysis of the buyout, the NPV remains positive, \$23.3 million, for a worst case scenario which employs the high end of FPC's most recent fuel forecast.

The buyout has several benefits in addition to the expected cost savings. The buyout will mitigate potential strandable costs and increase FPC's flexibility in meeting customer needs in the future. In addition, the reduction of FPC's long-term liability may lead to a decrease in the cost of capital.

Staff believes that the buyout of this QF Contract is a response to the threat of stranded costs given the possibility of retail competition. FPC has indicated to staff that cogeneration contracts are the company's most significant potential strandable costs under retail competition. Further, FPC has indicated that even FPC's nuclear unit, Crystal River No. 3, will be able to compete in an open-access environment. Clearly, we are not yet in an open-access environment. It is therefore unclear whether it is appropriate to address potential strandable costs at this time. Staff also recognizes that the Contract buyout has intergenerational equity issues, given the estimated 22 year payback period. However, staff believes the costs associated with the buyout should be approved for recovery because the buyout appears cost-effective in the long-run and will put control over generation resources back in the hands of FPC. Because the buyout is cost-effective and stockholders do not earn a return on the Contract, the \$49.4 million buyout expense should be recovered from FPC's ratepayers.



DOCKET NO. 961184-NQ  
DECEMBER 26, 1996

**ALTERNATIVE STAFF CONCERNS:** Staff has two primary concerns with FPC's petition. Staff's first concern is that it contradicts the objectives of the reverse auction bid solicitation and has negative effects on intergenerational equity due to the lengthy payback period. FPC's petition requests approval to recover \$49.4 million from its current ratepayers over the next five years to incur a net benefit of \$32.9 million. However, this net benefit will not be seen by FPC's ratepayers until the year 2019, or 22 years from today. Secondly, staff is concerned with the level of risk being placed on FPC's ratepayers. The benefits of FPC's proposal appears to be noticeably sensitive to the assumptions used in its cost-effectiveness analysis. Using the fuel price forecasts from FPC's 1996 Ten Year Site Plan reduces savings to the point that FPC's ratepayers may indeed be no better off than under the original contract.

#### **Payback Period**

FPC's reverse auction bid solicitation indicated two primary objectives that would be considered when evaluating proposals. They were:

- 1) Bids that provide net benefits (revenue requirement reductions) to customers sooner rather than later will be given a preference, and
- 2) Bids that result in a near term increase of capacity payments may be limited to an aggregate net present value rate impact of \$17.7 million, the amount of the 1995 over-recovery from the revenue decoupling experiment.

As indicated above, the FPC/OCL petition does not meet either of these two objectives. Specifically, FPC's proposed buyout will cost current ratepayers \$49.4 million but will not provide net benefits until 22 years in the future. In fact, the earliest possible benefits could not begin before the year 2014 when the Contract terminates and FPC begins replacing it with replacement power. This results in FPC's current ratepayers funding the buyout in hopes that they will remain customers a minimum of 17 years from now when they might begin to see a benefit. This violates the regulatory goal of intergenerational fairness.

Though this Commission has considered such a long payback period in the past, the paybacks were generally matched with gradual benefits that started closer to the time that costs were incurred. This close matching of cost to benefit helps to reduce

the risk and uncertainty of future benefits actually materializing. One example of near-term benefits associated with a buyout is a coal contract buyout. These types of buyouts discontinue older higher cost fuel contracts and immediately replace them with a lower cost coal supply. Therefore, a benefit is available to offset the added cost. However, the FPC/OCL buyout can not and will not provide any benefit until 17 years from now.

#### **Sensitivity to Assumptions**

As explained in the Primary staff analysis, Attachment A shows that terminating the Contract in year 2014 will result in a net benefit of \$32.9 million. Staff performed several analyses in order to determine the buyout's sensitivities to the input assumptions. These analyses varied inputs ranging from the assumed discount rate to projected fuel prices. Overall, the buyout was found to be noticeably sensitive to each of the changes as is more fully described below.

The FPC/OCL buyout assumes that foregone Contract energy and capacity payments could be replaced at a lower cost based on a weighted average of the cost of purchased power and capacity addition (Market Case). As a sensitivity to this assumption, staff asked FPC to develop a replacement capacity and energy forecast based solely on adding a combined-cycle unit (CC Case). This assumption reduces the cost-effectiveness of the FPC/OCL buyout from \$32.9 million to \$31.0 million. However, staff believes that this scenario is more reasonable and was used as the basis for additional analysis.

To measure the impact of changes in projected fuel prices, staff determined the buyout's cost-effectiveness when using the fuel price forecast from FPC's 1996 Ten Year Site Plan filing.<sup>1</sup> Substituting FPC's TYSP Base Case fuel price forecast decreased the buyout's savings to \$29.1 million, a \$13.9 million decrease. FPC's TYSP High Case fuel price forecast further reduced the cost-effectiveness to \$3.3 million, a \$29.7 million decrease. Staff believes that each of these sensitivities are reasonable and demonstrate the impact of short-term changes in fuel price projections.

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<sup>1</sup> FPC's 1996 Ten Year Site Plan was found to be suitable for planning purposes at the December 2, 1996 Internal Affairs Conference.

Staff also measured the impact of inflation on the buyout's cost-effectiveness. Inflation was introduced into FPC's methodology by increasing the growth rate in the estimated cost of building the Replacement Case's combined-cycle unit by one percent, and by adding one-third of one percent to FPC's current cost of capital, the assumed discount rate. No changes were made to the fuel forecasts in this analysis to avoid the possibility of double counting inflation when multiple changes in the assumptions were being considered. Staff found that a one percent increase in inflation and a 1/3 of one percent increase in FPC's current cost of capital resulted in a \$7.9 million reduction in the net present value of the buyout. This adjustment raised FPC's assumed growth rate for the combined-cycle's construction cost from 2.6 percent to 3.6 percent. Historically, inflation, as measured by the Gross Domestic Product deflator, has grown an average of 5.0 percent.

Staff also measured the impact of increasing just the assumed discount rate. Substituting FPC's current cost of capital, 8.67 percent, with its average over the last ten years, 9.55 percent, decreased the buyout's cost-effectiveness from \$32.9 million to \$21.9 million, an \$11 million reduction.

Finally, staff analyzed two scenarios in which both fuel prices and inflation were changed. The first scenario combined FPC's High Case TYSP fuel price forecast with a presumed one percent increase in the underlying rate of inflation. When combined, these assumptions result in a negative \$2.8 million net present value. The second scenario combined FPC's High Case TYSP fuel price forecast with FPC's historic cost of capital. This combination reduced the net benefit of the buyout to negative \$3 million, a \$36 million decrease. Staff found these scenarios of higher fuel prices and higher rates of inflation to be consistent with historical events over recent history. Furthermore, staff believes that these represent reasonable scenarios for the future.

The results of each of the analyses mentioned above are listed in the following table:

<b>FPC/OCL Buyout Cost-Effectiveness</b>			
<b>Sensitivity</b>	<b>Savings (\$000)</b>	<b>Decrease (\$000)</b>	<b>PayBack Period</b>
Petition (Market Case/9601 Forecast)	33,954	0.00	22
CC Case/9601 Fuel Price Forecast	31,040	1,906	22
CC Case/Base Case 96 TTSF Fuel Price Forecast	20,075	12,879	23
CC Case/High Case 96 TTSF Fuel Price Forecast	3,250	29,696	26
Petition With 1% Inflation Increase	24,995	7,959	23
Petition with Historic Cost of Capital, 9.55%	21,893	11,061	23
1% Inflation Increase CC Case/High Case 96 TTSF Fuel Price Forecast	(2,763)	35,717	>26
Historic Cost of Capital, 9.55% CC Case/High Case 96 TTSF Fuel Price Forecast	(2,973)	35,927	>26

As shown in the above table, the cost-effectiveness of the buyout is sensitive to both fuel price projections and inflationary impacts. The net savings from the buyout, based on FPC's recent fuel price forecasts, fluctuates as much as \$30 million. Adding the effects of FPC's historic cost of capital or the effects of higher rate of inflation results in negative savings. The FPC/OCL buyout is surrounded with uncertainty due to its lengthy payback period of 22 years. The only certainty surrounding the FPC/OCL buyout is the \$49.4 million buyout cost. Staff does not believe it is appropriate to subject FPC's current customers to this additional \$49.4 million expense in hopes that they might receive a benefit as much as 26 years in the future. Therefore, staff recommends that the Commission deny FPC's petition.



DOCKET NO. 961104-BQ  
DECEMBER 26, 1996

**ISSUE 2:** If Staff's primary recommendation on Issue 1 is approved, how should Florida Power Corporation (FPC) recover expenses associated with the Settlement Agreement to buy out the Orlando Cogen Limited, Ltd. (OCL) Contract?

**PRIMARY RECOMMENDATION:** If the primary staff recommendation to Issue 1 is approved, all expenses associated with the buyout should be recovered from the ratepayers through two adjustment clauses. Specifically, 38 percent of the buyout costs should be recovered through the Fuel and Purchased Power Cost Recovery Clause, and 62 percent should be recovered through the Capacity Cost Recovery Clause. This would approximate the cost allocation which would have occurred had the Contract remained in place. FPC indicated that the cost allocation methodology suggested by staff was acceptable. (Draper, Harlow, Wheeler)

**ALTERNATIVE RECOMMENDATION:** If the primary recommendation to Issue 1 is approved, staff recommends that \$46,642,000 of the \$49.4 million total buyout cost be allowed for recovery through the Capacity and Fuel Clauses and the remaining \$2,762,000 be recovered through current base rate earnings. The \$46,642,000 being recovered through the Capacity and Fuel Clauses should be allocated as recommended in the primary recommendation. (Stallcup)

**PRIMARY STAFF ANALYSIS:** As discussed in Issue 1, primary recommendation, staff recommends that the buyout is reasonable and prudent. Therefore, the buyout costs should be approved for cost recovery from the ratepayers. FPC requested in the petition that cost recovery of the buyout costs be implemented through the Capacity Cost Recovery Clause (capacity clause). This method, however, would result in inequities in cost allocation.

Capacity costs are allocated to customer classes based on their contribution to system peak demand. Since residential (RS) customers contribute relatively more to peak demand than commercial/industrial customers, recovery of all the costs through the Capacity Clause would unfairly burden the RS class. Fuel costs, on the other hand, are allocated to customer classes based on their relative energy (kWh) consumption. Allocating recovery only through the Fuel Clause would therefore result in commercial/industrial customers paying more of the cost relative to RS customers.

According to FPC's analysis of the Contract Case for the last ten years of the Contract, 62 percent of the total Contract payments to OCL would have been capacity payments recoverable

DOCKET NO. 961184-ED  
DECEMBER 26, 1996

through the Capacity Clause. The remaining 38 percent of the payments to OCL would have been energy payments recoverable through the Fuel Clause. Staff is recommending the buyout costs be recovered through the two clauses based on these percentages, in order to approximate the manner in which the Contract costs would have been recovered absent the buyout. FPC indicated that the cost allocation methodology suggested by staff was acceptable.

**ALTERNATIVE STAFF RECOMMENDATION:** FPC's request for recovery of the costs associated with the buyout of the OCL Contract is aimed at a desirable goal. Contracts like this one expose ratepayers to potentially higher energy costs in the future. They also reduce the company's financial flexibility by requiring them to carry potentially non-competitive sources of generation as long-term liabilities on their books. The fundamental question is whether the price FPC is asking ratepayers to pay to solve this problem is too high.

In the Primary Recommendation to Issue 1, staff considered the methodology and assumptions underpinning FPC's proposal, and although recognizing that there is a chance that the benefits to ratepayers may not materialize, concluded that FPC's proposal should be approved. Staff considered the same methodology and assumptions and concluded that the risk to ratepayers was too excessive and recommended that the proposal be denied. In this Alternative Recommendation, staff is proposing that by allowing a small portion of the Contract buyout costs to pass through current base rate earnings, the bulk of the Contract buyout costs can be recovered dollar for dollar through the recovery clauses as requested by the company, while reducing the long-term risk to ratepayers that gave rise to the concerns expressed in the Alternative Recommendation in Issue 1.

Staff believes that there are several factors that support the recovery of the buyout costs through the recovery clauses and current base rate earnings.

First, as discussed in the Alternative Recommendation in Issue 1, the net present value of the Contract buyout as presented by the company is sensitive to changes in the input assumptions. Using the scenario in which fuel prices conform to the high band forecast contained in FPC's 1996 Ten Year Site Plan, and using a historically modest rate of inflation 1 percent greater than assumed by FPC, the net present value of the buyout becomes negative in the amount (\$2,763,000). Staff believes that this scenario is entirely plausible considering the historical range

**DOCKET NO. 961184-NQ**  
**DECEMBER 26, 1996**

over which these input assumptions have varied and the length of time involved before the payback begins. Staff sees this scenario as a reasonable upper bound to the risk to which ratepayers should be exposed.

Second, FPC's current earned return on equity is 12.49%, well within its allowed range of 11.0 to 13.0 percent. With \$2.5 million representing 10 basis points on return on equity, there is room to allow a portion of the total buyout costs to flow through current base rate earnings and still keep the company safely within their range. The effect of recovering \$2.5 million over five years through current base rate earnings is to reduce FPC's achieved ROE by 2.2 basis points each year. Furthermore, staff believes that it is equitable to share the cost of the buyout between ratepayers and the company since both stand to benefit from it.

Third, recovering the costs between the recovery clauses and current base rate earnings does not change the terms of the Contract between FPC and OGI, only the way the costs are recovered. Approval of this form of recovery would not require renegotiation of the Contract.

Given these factors, staff believes that it is appropriate to approve recovery of the buyout costs through both the recovery clauses and through current base rate earnings. Given the plausibility of the scenario described above, staff recommends that \$2,763,000 of the total Contract buyout costs be recovered through base rates and the remaining \$46,643,000 be recovered through the Capacity and Fuel Recovery clauses. Both should be recovered over the five year period beginning in 1997 as requested in FPC's petition.

DOCKET NO. 961184-EG  
DECEMBER 26, 1996

**ISSUE 3:** How should the 1995 revenue decoupling over-recovery balance be credited to customers?

**RECOMMENDATION:** The Energy Conservation Cost Recovery (ECCR) factor should be credited with the 1995 revenue decoupling balance and accumulated interest to residential customers only with a one year amortization period as a part of the 970002-EG Docket. FPC has indicated that the one year amortization period is acceptable. (Dudley, Harlow, Stallcup)

**STAFF ANALYSIS:** Although the Commission approved FPC's request to defer crediting the 1995 revenue decoupling balance to allow FPC to conduct the reverse auction for GP buyouts, staff believes the refund of the decoupling balance is a separate issue and is unrelated to the merits of the Contract buyout.

In Order No. FPC-95-0097-FCF-EI approving FPC's proposal for revenue decoupling for residential customers, the Commission stated that, "revenue impacts from the decoupling experiment shall be reflected in the calculation of the ECCR factor." On March 12, 1996, the Commission issued Order No. FPC-96-0382-FCF-EG in Docket No. 960002-EG identifying \$17,746,831 plus interest as the appropriate amount of over-recovery for the Revenue Decoupling true-up balance for 1995.

FPC requests that the impact of the contract restructuring costs on residential customers be diffused by crediting the ECCR factor (for residential customers only) with the previously deferred 1995 revenue decoupling over-recovery balance and accumulated interest. FPC suggested that the decoupling over-recovery be amortized over a period of one to three years, whichever period best minimizes fluctuations in the customers' overall bills.

On November 19, 1996, FPC filed a Notice of Estimated True-Up Under-Recovery (Docket No. 960001-EI) which addressed the expected under-recovery of fuel costs due to an outage at the Crystal River 3 nuclear unit. In this filing FPC states that in order to diffuse the rate impact of the fuel under-recovery on residential customers, "Florida Power will request a one-year amortization period of the [1995] decoupling over-recovery in its upcoming ECCR filing." Staff agrees that the amortization period should be one year to mitigate the rate impacts for residential customers of the contract buyout along with any potential fuel cost under-recovery.

DOCKET NO. 961184-BQ  
DECEMBER 26, 1996

Legal staff received a letter from the Legal Environmental Assistance Foundation (LEAF) which stated, "LEAF has concerns about the connection between decoupling refunds to the residential customers and FPC's proposed OF contract buydown." The letter did not specify what these concerns are. However, as stated above, staff views the refund of the 1995 decoupling over-recovery balance and accumulated interest as a separate issue from the merits of the Contract buyout.



DOCKET NO. 961184-BQ  
DECEMBER 26, 1996

**ISSUE 4:** Should this docket be closed?

**RECOMMENDATION:** Yes. If no person whose substantial interests are affected by the Commission's proposed agency action files a protest within twenty-one days of the issuance of this order, this docket should be closed.

**STAFF ANALYSIS:** If no person whose substantial interests are affected, files a request for a Section 120.57, Florida Statutes, hearing within twenty-one days of the issuance of this order, no further action will be required and this docket should be closed.

**Exhibit D**

**Savings to FPC Customers  
Due to OGL Contract Buyout  
1987**

Year	1987			1988				Customer Savings
	Quantity	Energy	Total	Quantity	Energy	Buyout Cost	Total	
1987	0	0	0	0	0	0.001	0.001	(0.001)
1988	0	0	0	0	0	0.001	0.001	(0.001)
1989	0	0	0	0	0	0.001	0.001	(0.001)
1990	0	0	0	0	0	0.001	0.001	(0.001)
1991	0	0	0	0	0	0.001	0.001	(0.001)
1992	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	22,222	24,211	62,222	0.011	10,000	0	25,970	34,004
2005	22,177	22,110	62,222	0.010	10,701	0	25,904	27,221
2006	42,110	22,000	62,111	0.010	17,000	0	25,997	28,544
2007	42,171	22,000	62,171	0.010	17,401	0	27,220	41,702
2008	44,212	27,710	72,222	10,000	17,700	0	27,901	44,100
2009	42,000	22,004	72,222	10,001	10,100	0	22,400	40,720
2010	42,000	22,007	72,222	10,001	17,007	0	22,400	50,152
2011	01,400	22,000	62,222	10,000	10,007	0	22,120	52,000
2012	04,000	21,004	62,704	11,100	10,000	0	22,701	25,004
2013	02,000	22,700	62,222	11,400	10,007	0	22,200	50,100
<b>Total 2014-2013 =</b>			<b>5742,222</b>				<b>6070,000</b>	<b>6402,204</b>
<b>Net present value at 1987 =</b>			<b>310,001</b>				<b>520,007</b>	<b>532,004</b>

**Exhibit No. \_\_ (LGS-2)**

**FPC's Satisfaction for Reverse Auction Bids**



**Florida Power Corporation**

**Solicitation for Reverse Auction Bids**

**May 2, 1996**

## **SECTION 1 INTRODUCTION**

### **1.1 Purpose**

Florida Power Corporation (FPC or Company) is issuing this Request for Proposals for Reverse Auction Bids (RFP) to solicit proposals for capacity payment buy downs from the Company's operating qualifying facility (QF) suppliers. Capacity buy downs would result in a rescheduling of capacity payments over the remaining life of existing purchase agreements, resulting in higher capacity payments in the near term and lower capacity payments in the future. This RFP explains the basis for FPC's request and provides information and instructions to prospective bidders.

FPC's objective is to continue to meet the electric needs of its customers at competitive prices. The Company is issuing this RFP pursuant to this objective as part of its normal, ongoing efforts, in the interests of its customers, to deliver its product as cost effectively as possible. FPC believes that opportunities exist to creatively restructure purchased power payments to the mutual benefit of both customers and QF suppliers. In January of this year FPC advised the Florida Public Service Commission (FPSC) of its intent to solicit capacity buy downs from its QF suppliers using a reverse auction process. At that time, the Company proposed that a \$17.7 million over-recovery balance (resulting from FPC's revenue decoupling mechanism) be used to provide funding for the reverse auction. FPC advised the FPSC that capacity buy downs resulting from a reverse auction could result in benefits to FPC's customers. This RFP includes capacity payment buy downs in the form of specific, structured options. Additionally, alternatives are provided for QFs to respond by initiating creative buy down or buy out concepts for consideration. This open-ended structure is intended to facilitate effective communication and the exchange of proposals to arrive at mutually beneficial transactions.

### **1.2 Summary of the Solicitation Process**

Proposals will be judged according to their ability to reduce the long term cost of purchases under existing QF contracts in a manner that is cost effective to FPC's customers. Accordingly, a key element of the evaluation process will be an analysis of the impact of each proposal on future customer revenue requirements. The objective of this process is to elicit a proposal or group of proposals that result in benefits on a net present value basis. Given that most or all of the proposals will require project lender and regulatory approval, these activities have been included in the RFP process schedule. This is a limited solicitation. Only those operating QFs supplying energy and capacity under contract to FPC as of the issuance date of this solicitation are eligible to participate as bidders.

**Florida Power Corporation**

**Solicitation for Reverse Auction Bids**

**May 2, 1996**

# Table of Contents

<b>1</b>	<b>Introduction</b>	
1.1	Purpose .....	1
1.2	Summary of the Solicitation Process .....	1
<b>2</b>	<b>Solicitation Process and Schedule</b>	
2.1	Schedule of Events .....	2
2.2	Pre-Bid Conference .....	2
2.3	RFP Response and Deadline .....	3
2.4	Notification of Selected Bids .....	4
<b>3</b>	<b>Bid Evaluation Methodology</b>	
3.1	Qualified Bidders and the Basis for Disqualification .....	5
3.2	Confidentiality of Information .....	5
3.3	Bid Evaluation Process .....	5
<b>4</b>	<b>Instructions to Respondents</b>	
4.1	General Instructions .....	7
4.2	Preparation of Standard Buy-down Bid Forms .....	7
4.3	Preparation of Custom Bid Proposals .....	8
	<b>Appendix - Standard Bid Forms</b>	
	Bidder Information Form .....	A-1
	Capacity Buy Down Option #1 .....	A-2
	Capacity Buy Down Option #2 .....	A-3

## **SECTION 1 INTRODUCTION**

### **1.1 Purpose**

Florida Power Corporation (FPC or Company) is issuing this Request for Proposals for Reverse Auction Bids (RFP) to solicit proposals for capacity payment buy downs from the Company's operating qualifying facility (QF) suppliers. Capacity buy downs would result in a rescheduling of capacity payments over the remaining life of existing purchase agreements, resulting in higher capacity payments in the near term and lower capacity payments in the future. This RFP explains the basis for FPC's request and provides information and instructions to prospective bidders.

FPC's objective is to continue to meet the electric needs of its customers at competitive prices. The Company is issuing this RFP pursuant to this objective as part of its normal, ongoing efforts, in the interests of its customers, to deliver its product as cost effectively as possible. FPC believes that opportunities exist to creatively restructure purchased power payments to the mutual benefit of both customers and QF suppliers. In January of this year FPC advised the Florida Public Service Commission (FPSC) of its intent to solicit capacity buy downs from its QF suppliers using a reverse auction process. At that time, the Company proposed that a \$17.7 million over-recovery balance (resulting from FPC's revenue decoupling mechanism) be used to provide funding for the reverse auction. FPC advised the FPSC that capacity buy downs resulting from a reverse auction could result in benefits to FPC's customers. This RFP includes capacity payment buy downs in the form of specific, structured options. Additionally, alternatives are provided for QFs to respond by initiating creative buy down or buy out concepts for consideration. This open-ended structure is intended to facilitate effective communication and the exchange of proposals to arrive at mutually beneficial transactions.

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## **SECTION 2 SOLICITATION PROCESS AND SCHEDULE**

### **2.1 Schedule of Events**

FPC plans to conduct this solicitation according to the following schedule:

<b>Announcement of RFP</b>	<b>March 25, 1996</b>
<b>Pre-RFP conference</b>	<b>April 23, 1996</b>
<b>Issue date of RFP</b>	<b>May 2, 1996</b>
<b>Pre-bid conference</b>	<b>May 17, 1996</b>
<b>RFP response deadline</b>	<b>July 1, 1996</b>
<b>Notify selected bidders</b>	<b>August 1, 1996</b>
<b>Definitive agreements signed</b>	<b>August 30, 1996</b>
<b>Petition filed for FPSC approval</b>	<b>October 1, 1996</b>
<b>Contract amendments effective</b>	<b>January 1, 1997</b>

It is our intent to maintain this schedule and complete the overall process in an expeditious manner. However, some creative proposals may be evaluated and completed according to a somewhat different schedule more suitable to the nature of those proposals (see Section 4.3 for additional discussion of custom bid proposals). Given that this RFP is limited to the Company's existing QF suppliers, announcements and correspondence regarding the RFP process will be communicated directly to those suppliers. The RFP will be issued by sending a copy of the RFP to each qualified QF bidder. No interpretation or revision of the RFP is valid unless in writing and signed by the official FPC contact. FPC reserves the right to terminate the solicitation process entirely at any time. Under no circumstances will FPC reimburse or be liable for any expense incurred by a bidder in relation to this solicitation. FPC reserves the right to reject any or all bids received in response to the RFP.

### **2.2 Pre-Bid Conference**

On Friday, May 17, 1996 FPC will conduct a pre-bid conference in St. Petersburg, Florida for the purpose of discussing this solicitation process with prospective bidders. The conference will be held at FPC's corporate offices and will begin at 10:00 A.M. Bidders are encouraged to forward questions and suggestions regarding the RFP to the official FPC contact prior to the pre-bid conference. General questions from bidders regarding the RFP process that are received after the pre-bid conference will be addressed at FPC's discretion and any response by FPC will be made only in the form of written communication to all qualified bidders in a manner consistent with

protecting the confidential nature of any information involved in the inquiry as set forth later herein. Questions that arise that are unique to an individual supplier's contract will be handled in the context of normal ongoing contract administration.

### **2.3 RFP Response and Deadline**

All proposals must be received by FPC no later than the response deadline of 5:00 P.M. on July 1, 1986. All proposals must include five (5) paper copies of each completed proposal, including all supporting documents, in a sealed package addressed to the official FPC contact and marked: "Confidential Response to Solicitation for Reverse Auction Bids. Deliver to Addressee Unopened." A bidder may withdraw its proposal or any part of its proposal at any time prior to the execution of an agreement based on an accepted bid by providing written notice to the official FPC contact.

Bidders may respond using the format of standard bid options included in this RFP, by proposing a modified version of a standard option, or by creating a proposal of their own design. In the event that more than one option or proposal is included in the RFP response, bidders will be required to identify one proposal as the bidder's "Primary Proposal". If any group of multiple proposals are mutually exclusive, the bidder is instructed to indicate a preference or ranking for those proposals. Each individual proposal supplied in response to the RFP should be clearly identified and distinguished in order to facilitate its review in the evaluation process. The bid response must include a completed bidder information form which identifies an official bidder contact who has authority to speak for the bidder on all matters related to its proposal.

Any questions or comments on this RFP should be directed to the official FPC contact for this solicitation process:

**FLORIDA POWER CORPORATION  
Mr. Lee G. Schuster  
Purchased Power Specialist  
Post Office Box 14042  
St. Petersburg, Florida 33733**

**Phone (813) 824-6506  
Fax (813) 866-4922**



#### **2.4 Notification of Selected Bids**

Once FPC has completed its evaluation of proposals, all bidders will be notified as to the status of their bids. Immediately following the notification of accepted bids, FPC will schedule meetings with successful bidders to initiate the necessary steps to proceed with closing the transaction corresponding to each winning bid. These steps may be different for individual bids but are expected to include the following steps: (1) prepare and execute a definitive contract amendment or agreement corresponding to the bid, (2) if necessary, obtain project lender approval; and, (3) obtain FPSC approval. It is contemplated that such agreements will be executed subject to the required approvals. If required, project lender approvals will be obtained as soon as possible after the execution of agreements and no later than December 31, 1996. The notification of accepted bids does not imply any commitment on the part of FPC to enter into an agreement and FPC shall not be bound in any respect until such time as a definitive contract amendment or agreement containing satisfactory terms and conditions is signed by both parties and approved as appropriate.



## **SECTION 3 EVALUATION METHODOLOGY**

### **3.1 Qualified Bidders and the Basis for Disqualification**

This reverse auction is a limited solicitation. Only those operating QFs supplying energy and capacity under contract to FPC as of the issuance date of this solicitation are eligible to participate as bidders. Bids received from any party other than a qualified bidder will not be considered. Bids received from qualified bidders may be disqualified and dropped from further consideration at any point in the solicitation process in FPC's sole discretion for reasons including, but not limited to, those listed below:

1. Failure to submit a complete, executed bidder information form.
2. Failure to submit a proposal before the response deadline.
3. Failure to provide clarification of a bid as requested by FPC subsequent to the submission of a proposal.
4. Illegal conduct, attempts or the appearance of attempts to improperly influence the consideration or ranking of proposals.
5. Failure to honor representations made in a proposal.
6. Failure to maintain the confidentiality of any information provided on a confidential basis or as part of any negotiations associated with this solicitation process.

### **3.2 Confidentiality of Information**

The nature of this solicitation process may entail the disclosure of information deemed confidential by bidders. FPC will take reasonable precautions to protect any information identified as confidential. It is the responsibility of bidders to clearly identify any information provided to FPC that should be treated as confidential. If deemed necessary by a bidder, FPC will execute a confidentiality agreement.

### **3.3 Bid Evaluation Process**

Proposals will be judged according to their ability to reduce the long term cost of purchases under existing QF contracts in a manner that is cost effective to FPC's customers. Accordingly, a key element of the evaluation process will be an analysis of the impact of each proposal on future customer revenue requirements. The objective of the bid evaluation process is to arrive at a proposal or group of proposals that FPC is prepared to accept and pursue to implementation.

The evaluation process will begin with a review of all proposals to ensure that each one is sufficiently specific and complete to undertake evaluation. If necessary, FPC may contact individual bidders for clarification to facilitate the review of proposals. The proposals will be divided into two groups for evaluation purposes. The first group will include only buy down proposals that consist of rescheduled capacity payments. The second group will include all proposals other than those based on rescheduled capacity payments. FPC will then proceed with a detailed evaluation of each group of proposals. Subject to the overall review of these bids, a principle selection criterion will be the resulting impact on the net present value of customer revenue requirements.

Capacity buy down proposals will be judged primarily on two criteria. First, bids based on higher discount rates are more likely to be accepted, and will be accepted in preference to bids based on lower discount rates. Second, bids that provide net benefits (revenue requirement reductions) to customers sooner rather than later will be given preference. For example, given two bids with the same net present value benefit, a bid that results in a reduction in customer rates within five years will be preferred to another bid that reduces rates only after ten or fifteen years. The bid discount rate, as computed for bid options #1 and #2 (refer to Section 4.2), will be highly correlated with the net benefit to customers determined in the bid evaluation process. FPC stressed this point in its testimony before the FPSC: "To the extent that OFs assign a higher value for up-front payments than a reduction in payments over time (by the use of the discount rate they use to value cash flow), the \$17.7 million can be leveraged to produce more value to customers."

The second group of proposals (other than proposals for rescheduled capacity payments) will be subjected to a more comprehensive evaluation process appropriate to the variety and unique nature of these offers. The evaluation criteria will include: (1) the net present value of reduction in future customer revenue requirements; (2) the specific timing of the impact on customer revenues; (3) the nature of the proposal, such as fixed energy payment buy down, project buy out, contract buy out, or other; (4) the funding commitment which may be required by FPC to pursue a given proposal; (5) consideration of the regulatory and/or lender approval required for the proposal; and (6) any other factors that are judged to have a bearing on the financial impact or viability of proposal.

Based on the results of the bid evaluation process, FPC will make a decision to accept or reject each proposal. For bids that result in a near term increase in capacity payments, the aggregate amount of bids accepted may be limited to a net present value rate impact of \$17.7 million (based on FPC's revenue decoupling fund balance). However, in the event that highly attractive bids exceed the \$17.7 million limit, FPC may choose to pursue ways with the FPSC to implement such proposals on behalf of its customers. For proposals such as an offer to sell a project outright to FPC, which may entail a capital investment by FPC, there is no predetermined upper limit for the value of accepted bids.

## **SECTION 4 INSTRUCTIONS TO RESPONDENTS**

### **4.1 General Instructions**

Each proposal must include a completed bidder information form. Beyond this single requirement, the form and content of each bid proposal is flexible. The format for bids is not fixed because FPC recognizes that a variety of proposals are possible that might be precluded by a rigid bid format. In order to be successful, this solicitation process requires flexibility to accommodate the creativity and unique needs and circumstances of each potential bidder. As desirable as this open-ended, flexible format is in principle, it will represent a challenge for bidders in the preparation and submittal of bids and for FPC in the evaluation of bids. It is essential that bidders provide a clear, concise presentation of bid proposals.

### **4.2 Preparation of Standard Buy Down Bid Forms**

This solicitation includes standard formats for two general types of capacity buy down options that may be of interest to bidders (see appendix for forms). The existing capacity payment schedule has been inserted in columns (1) and (2) of these forms for each potential QF bidder. The RFP package includes a 3.5 inch diskette containing these forms in Excel 5.0 files.

Option #1 allows a bidder to specify a new capacity payment (\$/KW-month) to be effective January 1, 1997. The new payment rate is specified in combination with a new annual capacity payment escalation rate for the remaining life of the power purchase agreement. Bidding option #1 is intended to be used to specify a new capacity payment rate for 1997 that is equal to or higher than the existing payment rate in conjunction with an escalation rate that is lower than the existing capacity payment escalation rate. Note that the new escalation rate may be positive, zero or negative, resulting in a capacity payment stream that increases more slowly than the existing payment stream, is flat over time, or decreases over time from its initial value.

Column 3 of the bid form calculates the year-by-year change in capacity payments resulting from the bid. In general, column 3 will indicate an increase in payments in the near term and a reduction in payments in the long term. A discount rate is calculated by the form and appears at the bottom of column 3. This discount rate is calculated based on the cash flow stream in column 3 in exactly the same manner as a standard financial internal rate of return calculation. The calculated discount rate will be a critical factor in FPC's review and acceptance of bids (see Section 3.3 for additional discussion of the bid evaluation process).

Bidding option #2 is intended to be used to specify a capacity payment schedule that may not be compatible with the format of option #1. Option #2 may be used to specify capacity payment amounts on a year-by-year basis using a pattern that is tailored to the financial and operating needs of the bidder's project. Once annual capacity payment rates have been entered into column 4 of the form, the format for option #2 is identical to option #1.

#### **4.3 Preparation of Custom Bid Proposals**

Any bid proposal that does not fit one of the standard bidding formats described above will be treated as a custom bid. FPC encourages bidders to make creative proposals that meet the stated purpose of the solicitation as well as their own unique circumstances. As noted previously, it may be appropriate for custom proposals to be pursued according to a schedule suitable to the unique nature of the proposal rather than according to the standard schedule defined in Section 2.1. Any such modified schedule will be determined on a case-by-case basis in a manner acceptable to both FPC and the bidder. As examples of custom proposals, FPC will give full consideration to bids based upon, but not limited to, the following concepts:

1. Contract buy outs may be designed to partially or completely buy out the existing contract. Partial buy outs can be based on a reduction in the term of the contract, a reduction in the committed capacity, or other changes in the existing terms of the contract.
2. A rescheduling of capacity, fixed O&M, or variable O&M (non-fuel) payments that results in a lower escalation rate for future payments can be traded for higher payments in the near term or an up-front payment that "buys out" some or all future escalation of a particular payment stream.
3. FPC is interested in receiving proposals to buy out existing projects. This may take the form of an immediate buy out of a project, a commitment for a future buy-out, or an option for FPC to buy out a project. Bidders may choose to offer a specific price and terms for a buy out or simply offer a framework or threshold for a buy out, leaving FPC the option to respond with a definitive buy out offer.

**Exhibit No. \_\_\_ (LGS-3)**

**Excerpt from FPC's 1988 Ten-Year Site Plan  
Supplemental Filing**





**Florida  
Power**  
CORPORATION

**JAMES A. MCGEE**  
SENIOR COUNSEL

**April 26, 1996**

**Mr. Joseph D. Jenkins, Director  
Division of Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0630**

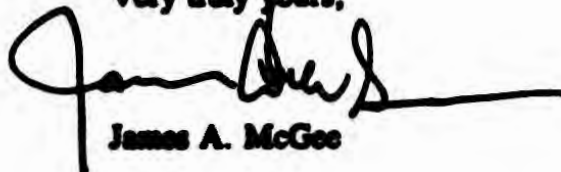
**Re: Ten-Year Site Plan - Supplemental Information**

**Dear Mr. Jenkins:**

**Enclosed is Florida Power's complete response to the request for supplemental information contained in your letter dated March 12, 1996 and replaces the partial response submitted with my letter of April 15, 1996.**

**If you should have any questions regarding this information please feel free to contact me or Mr. Lynn Taylor (813/866-5441).**

**Very truly yours,**

  
**James A. McGee**

**JAM/jb  
Enclosure**

**cc: Mr. Michael Haff**

**RECEIVED  
System Planning**

**APR 29 1996**

**GENERAL OFFICE**

**3201 Thirty-fourth Street South • Post Office Box 14842 • St. Petersburg, Florida 33733-4842 • (813) 866-5184 • Fax: (813) 866-4931  
A Florida Progress Company**

**FLORIDA PUBLIC SERVICE COMMISSION**  
**SUPPLEMENTAL DATA REQUEST**

**FLORIDA POWER CORPORATION'S**  
**1996 TEN-YEAR SITE PLAN**

**APRIL, 1998**

FLORIDA POWER CORPORATION

SCHEDULE 5.2.1  
 NOMINAL, DELIVERED DISTILLATE OIL and NATURAL GAS PRICES  
 BASE CASE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	DISTILLATE OIL			NATURAL GAS		
	\$/GAL	¢/BTU	ESCALATION %	¢/BTU	¢/THERM	ESCALATION %
	1/	1/				
1985	25.28	444.88		298.00	28.00	
1987	23.88	487.88	-8.38	308.00	30.00	6.21
1988	28.88	382.88	-11.88	213.00	21.30	-38.84
1989	28.28	482.88	11.88	238.00	22.80	7.91
1990	28.87	487.88	28.88	215.00	21.88	-8.11
1991	28.84	581.88	8.88	188.00	18.88	-11.88
1992	27.88	478.88	-4.88	284.00	28.48	38.88
1993	28.28	484.88	-4.88	427.88	42.78	88.11
1994	22.88	388.88	-13.44	288.88	28.88	-47.97
1995	23.88	418.88	8.88	282.88	28.28	-18.88
	2/	2/		3/	3/	
1985	21.88	378.88	-8.88	281.88	28.18	34.28
1987	24.28	488.88	11.11	281.88	28.18	3.88
1988	26.88	448.88	4.78	271.88	27.18	3.88
1989	27.28	478.88	8.88	282.88	28.28	4.88
1990	28.42	488.88	4.28	288.88	28.88	8.87
1991	28.28	588.88	3.88	244.88	24.48	8.27
1992	28.88	618.88	8.88	388.88	38.88	8.18
1993	28.48	688.88	2.84	348.88	34.88	4.88
1994	31.22	648.88	2.88	382.88	38.28	4.82
1995	32.48	888.88	3.78	373.88	37.38	3.84

HEAT CONTENT DISTILLATE OIL

5.88 BTU/GAL

NOTES: 1/ AS BURNED DATA - APPROXIMATE  
 2/ WITHOUT INLAND FREIGHT - 0.8% SULFUR  
 3/ 100% LOAD FACTOR - FIRM TRANSPORTATION



**FLORIDA POWER CORPORATION**

**SCHEDULE 5.2.3  
NOMINAL DELIVERED DISTILLATE OIL and NATURAL GAS PRICES  
LOW CASE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	DISTILLATE OIL			NATURAL GAS		
	999L	¢/MBTU	ESCALATION %	¢/MBTU	¢/THERM	ESCALATION %
1986						
1987						
1988						
1989						
1990						
1991		SEE BASE CASE			SEE BASE CASE	
1992						
1993						
1994						
1995						
1996	1/	1/		2/	2/	
1996	21.48	376.00		299.00	29.00	
1997	21.87	377.00	1.00	299.00	29.00	1.30
1998	22.33	388.00	2.12	299.00	29.00	0.00
1999	22.79	399.00	2.60	299.00	29.30	1.30
2000	23.29	409.00	1.70	299.00	29.00	1.30
2001	23.85	420.00	2.60	299.00	29.00	1.37
2002	24.10	417.00	2.21	344.00	34.00	2.00
2003	24.65	426.00	1.92	340.00	34.00	2.05
2004	25.17	434.00	2.12	354.00	35.00	2.91
2005	25.64	442.00	1.94	359.00	35.00	1.97

HEAT CONTENT DISTILLATE OIL = 5.80 MBTU/99L

NOTES: 1/ WITHOUT INLAND FREIGHT - 0.0% SULFUR  
2/ 100% LOAD FACTOR - FIRM TRANSPORTATION

**FLORIDA POWER CORPORATION**

**SCHEDULE 5.2.1  
NOMINAL, DELIVERED DISTILLATE OIL and NATURAL GAS PRICES  
BASE CASE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	DISTILLATE OIL			NATURAL GAS		
	\$/GAL	\$/MBTU	ESCALATION %	\$/MBTU	\$/THERM	ESCALATION %
	1/	1/				
1985	25.25	444.00		292.00	29.00	
1987	23.00	487.00	-8.30	300.00	30.00	6.21
1988	23.00	382.00	-11.00	213.00	21.30	-30.04
1989	23.20	482.00	11.05	299.00	29.90	7.91
1990	25.07	497.00	20.00	215.00	21.50	-8.11
1991	29.04	591.00	0.00	199.00	19.90	-11.00
1992	27.00	470.00	-4.00	264.00	26.40	30.00
1993	26.25	484.00	-4.00	427.00	42.70	60.11
1994	22.00	380.00	-13.44	280.00	28.00	-47.07
1995	23.00	410.00	8.00	292.00	29.20	-10.00
	2/	2/		3/	3/	
1995	21.00	370.00	-8.00	291.00	29.10	24.20
1997	24.20	480.00	11.11	291.00	29.10	3.00
1998	25.00	440.00	4.70	271.00	27.10	3.00
1999	27.20	470.00	0.00	292.00	29.20	4.00
2000	28.40	480.00	4.20	290.00	29.00	5.07
2001	28.20	500.00	3.00	214.00	21.40	8.37
2002	28.00	610.00	0.00	300.00	30.00	5.10
2003	28.40	620.00	2.00	340.00	34.00	4.00
2004	31.22	640.00	2.00	392.00	39.20	4.00
2005	32.40	680.00	3.70	373.00	37.30	3.04

HEAT CONTENT DISTILLATE OIL

5.00 BTU/GAL

NOTES: 1/ AS BURNED DATA - APPROXIMATE  
2/ WITHOUT INLAND FREIGHT - 0.0% SULFUR  
3/ 100% LOAD FACTOR - FIRM TRANSPORTATION

FLORIDA POWER CORPORATION

SCHEDULE 5.2.2  
 NOMINAL DELIVERED DISTILLATE OIL and NATURAL GAS PRICES  
 HIGH CASE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	DISTILLATE OIL			NATURAL GAS		
	\$/GAL	¢/BTU	ESCALATION %	¢/BTU	¢/THERM	ESCALATION %
1985						
1987						
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						
		SEE			SEE	
		BASE CASE			BASE CASE	
	1/	1/		2/	2/	
1996	26.00	480.00		300.00	20.00	
1997	27.25	470.00	2.17	300.00	20.00	3.00
1998	27.04	460.00	2.13	300.00	20.00	3.00
1999	26.42	450.00	2.00	317.00	21.70	3.00
2000	26.00	440.00	1.99	300.00	20.00	0.00
2001	26.74	430.00	2.00	300.00	20.00	0.21
2002	31.00	420.00	3.77	300.00	20.00	0.00
2003	30.00	410.00	3.04	401.00	40.10	0.00
2004	34.22	400.00	3.01	400.00	40.00	0.34
2005	35.30	410.00	3.20	440.00	44.00	4.00

HEAT CONTENT DISTILLATE OIL = 6.00 MBTU/GAL

NOTES: 1/ WITHOUT INLAND FREIGHT - 0.5% SULFUR  
 2/ 100% LOAD FACTOR - FIRM TRANSPORTATION

**FLORIDA POWER CORPORATION**  
**SCHEDULE 5 2 3**  
**NOMINAL DELIVERED DISTILLATE OIL and NATURAL GAS PRICES**  
**LOW CASE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	DISTILLATE OIL			NATURAL GAS		
	\$GAL	¢MBTU	ESCALATION %	¢MBTU	¢THERM	ESCALATION %
1986						
1987						
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						
		SEE			SEE	
		BASE CASE			BASE CASE	
		1/			2/	
1996	21.46	376.00		285.00	22.00	
1997	21.67	377.00	1.00	285.00	22.00	1.30
1998	22.33	388.00	2.12	290.00	23.00	0.00
1999	22.79	390.00	2.00	290.00	23.30	1.30
2000	23.30	400.00	1.70	290.00	23.00	1.30
2001	23.60	400.00	2.00	290.00	23.00	1.27
2002	24.10	417.00	2.21	244.00	24.00	2.00
2003	24.65	430.00	1.92	240.00	24.00	2.05
2004	25.17	434.00	2.12	244.00	25.00	2.01
2005	25.04	442.00	1.94	250.00	25.00	1.97

HEAT CONTENT DISTILLATE OIL                      =                      5.00 MBTU/GAL

NOTES: 1/ WITHOUT INLAND FREIGHT - 0.0% SULFUR  
2/ 100% LOAD FACTOR - FIRM TRANSPORTATION

**FLORIDA POWER CORPORATION**  
**SCHEDULE 5.3.1**  
**NOMINAL DELIVERED COAL PRICES**  
**BASE CASE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	LOW SULFUR COAL (< 1.0%)				MEDIUM SULFUR COAL (1.0 - 2.0%)				HIGH SULFUR COAL (> 2.0%)			
	\$/TON	¢/MBTU	ESCALATION %	% SPOT PURCHASE	\$/TON	¢/MBTU	ESCALATION %	% SPOT PURCHASE	\$/TON	¢/MBTU	ESCALATION %	% SPOT PURCHASE
1986					1/	1/		4/				
1987					84.72	228.00		0.00				
1988					88.04	211.00	-7.48	0.00				
1989					82.00	210.00	-0.47	0.00				
1990					81.00	200.00	-1.00	0.00				
1991					81.00	200.00	-0.40	0.00				
1992					80.15	201.00	-1.00	0.00				
1993					48.44	107.00	-1.00	0.00				
1994					48.01	100.00	-0.91	0.00				
1995					48.20	100.00	-1.00	0.00				
1996					47.70	100.00	-1.00	0.00				
1997	2/	3/		4/	3/	3/		4/	5/	5/		
1998	89.40	200.00		0.00	42.00	100.00	-11.00	0.00	0.00	0.00		
1999	91.00	200.00	2.00	0.00	44.20	177.00	5.20	0.00	0.00	0.00		
2000	82.42	200.00	1.40	0.00	44.70	170.00	1.10	0.00	41.00	170.00		
2001	80.42	212.00	1.00	0.00	40.70	100.00	2.20	0.00	42.12	100.00	1.12	
2002	84.00	217.00	2.20	0.00	47.20	100.00	3.20	0.00	42.00	100.00	1.11	
2003	80.20	200.00	2.70	0.00	40.20	100.00	2.12	0.00	43.00	104.00	1.10	
2004	87.40	200.00	2.24	0.00	40.20	107.00	2.07	0.00	43.70	107.00	1.00	NOT APPLICABLE
2005	80.72	200.00	2.10	0.00	80.20	204.00	2.00	0.00	44.40	100.00	1.00	
2006	80.72	207.00	1.72	0.00	81.20	200.00	1.00	0.00	45.10	100.00	1.00	
2007	80.73	241.00	1.00	0.00	82.20	200.00	1.00	0.00	45.00	100.00	1.04	

HEAT CONTENT < 1.0% LOW SULFUR COAL = 25.20 MBTU/TON  
HEAT CONTENT 1.0 - 2.0% MED. SULFUR COAL = 25.00 MBTU/TON  
HEAT CONTENT > 2.0% HIGH SULFUR COAL = 23.40 MBTU/TON

NOTES 1/ TOTAL COAL - \$/TON ARE APPROXIMATE - AS BURNED DATA  
2/ LIMITED TO 1.2 ¢/MBTU  
3/ LIMITED TO 2.1 ¢/MBTU  
4/ 100% CONTRACT  
5/ ILLINOIS BASIN 4.0 ¢/MBTU

**FLORIDA POWER CORPORATION**  
**SCHEDULE 5.3.2**  
**NOMINAL DELIVERED COAL PRICES**  
**HIGH CASE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	LOW SULFUR COAL (< 1.0%)				MEDIUM SULFUR COAL (1.0 - 2.0%)				HIGH SULFUR COAL (> 2.0%)			
	\$/TON	cMBTU	ESCALATION %	% SPOT PURCHASE	\$/TON	cMBTU	ESCALATION %	% SPOT PURCHASE	\$/TON	cMBTU	ESCALATION %	% SPOT PURCHASE
1986												
1987												
1988												
1989												
1990	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE			
1991	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE			
1992	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE			
1993	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE			
1994	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE			
1995	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE			
1996	1/	1/		3/	2/	2/		3/	4/	4/		
1996	82.16	287.00		0.00	48.00	160.00		0.00	6.00	6.00		
1997	83.00	213.00	2.00	0.00	48.00	164.00	2.32	0.00	6.00	6.00		
1998	84.94	219.00	2.35	0.00	47.00	169.00	2.17	0.00	43.00	164.00		
1999	88.30	223.00	2.35	0.00	48.75	164.00	2.10	0.00	43.75	167.00	1.63	
2000	87.48	223.00	2.34	0.00	48.75	169.00	2.08	0.00	44.00	161.00	2.14	
2001	89.22	235.00	3.07	0.00	51.25	205.00	3.02	0.00	46.00	165.00	2.62	NOT APPLICABLE
2002	89.73	241.00	2.65	0.00	52.00	210.00	2.44	0.00	46.00	202.00	2.04	NOT APPLICABLE
2003	82.00	240.00	2.00	0.00	55.75	216.00	2.35	0.00	47.97	205.00	2.90	
2004	84.91	254.00	2.42	0.00	55.00	220.00	2.33	0.00	48.14	210.00	2.44	
2005	85.82	260.00	2.33	0.00	55.25	225.00	2.27	0.00	50.31	215.00	2.38	

HEAT CONTENT < 1.0% LOW SULFUR COAL = 35.30 MBTU/TON  
 HEAT CONTENT 1.0 - 2.0% MED. SULFUR COAL = 35.00 MBTU/TON  
 HEAT CONTENT > 2.0% HIGH SULFUR COAL = 23.40 MBTU/TON

NOTES: 1/ LIMITED TO 1.2 B 800MBTU  
 2/ LIMITED TO 2.1 B 800MBTU  
 3/ 100% CONTRACT  
 4/ ILLINOIS BASIN 4.0 B 800MBTU

**FLORIDA POWER CORPORATION**  
**SCHEDULE 5.3.3**  
**NOMINAL DELIVERED COAL PRICES**  
**LOW CASE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	LOW SULFUR COAL (< 1.0%)				MEDIUM SULFUR COAL (1.0 - 2.0%)				HIGH SULFUR COAL (> 2.0%)			
	\$/TON	cMBTU	ESCALATION %	% SPOT PURCHASE	\$/TON	cMBTU	ESCALATION %	% SPOT PURCHASE	\$/TON	cMBTU	ESCALATION %	% SPOT PURCHASE
1985												
1987												
1988												
1989												
1990	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE		NOT APPLICABLE	
1991	DATA NOT AVAILABLE				SEE BASE CASE				DATA NOT AVAILABLE		NOT APPLICABLE	
1992												
1993												
1994												
1995												
1996	1/	1/		3/	2/	2/		3/	4/	4/		
1996	48.84	187.88		0.00	42.88	178.88		0.00	40.88	168.88		
1997	50.49	200.00	1.82	0.00	43.88	172.88	1.18	0.00	40.88	168.88		
1998	51.18	200.00	1.58	0.00	43.25	173.88	0.88	0.00	39.88	168.88		
1999	51.91	200.00	1.48	0.00	44.25	177.88	2.21	0.00	40.81	171.88	1.18	
2000	52.87	200.00	1.48	0.00	45.88	182.88	2.82	0.00	40.25	172.88	0.88	
2001	53.88	214.88	2.28	0.00	46.88	188.88	2.28	0.00	40.48	173.88	0.88	NOT APPLICABLE
2002	54.94	218.88	1.87	0.00	47.88	188.88	2.18	0.00	40.72	174.88	0.88	NOT APPLICABLE
2003	55.28	223.88	2.28	0.00	48.88	184.88	2.11	0.00	41.18	178.88	1.18	
2004	57.28	227.88	1.78	0.00	48.88	188.88	2.88	0.00	41.18	178.88	0.88	
2005	58.21	231.88	1.78	0.00	58.88	202.88	2.88	0.00	41.42	177.88	0.87	

HEAT CONTENT < 1.0% LOW SULFUR COAL = 25.20 MBTU/TON  
 HEAT CONTENT 1.0 - 2.0% MED. SULFUR COAL = 25.00 MBTU/TON  
 HEAT CONTENT > 2.0% HIGH SULFUR COAL = 23.40 MBTU/TON

NOTES: 1/ LIMITED TO 1.2 @ 803MBTU  
 2/ LIMITED TO 2.1 @ 803MBTU  
 3/ 100% CONTRACT  
 4/ ILLINOIS BASIN 4.0 @ 803MBTU



**Exhibit No. \_\_\_ (LSS-4)**

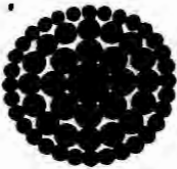
**Staff Sensitivity Analysis Cases**

**Summary of FPC/OCL Buyout Cost Effectiveness  
FPSC Staff Sensitivity Analysis Cases**

		<u>(1)</u>	<u>(2)</u>	<u>(3)</u>
		<b>FPC Results</b>		
<u>Case Description</u>	<u>FPSC Staff Results</u>	<u>FPSC Fuel Forecast</u>	<u>FPSC Fuel Forecast</u>	
1	Market Case (Petition) FCP 9801 forecast	32,954	32,954	32,954
2	CC Case FCP 9801 forecast	31,048	31,048	31,048
3	CC Case Base 96 TYSP forecast	20,075	20,075	20,260
4	CC Case High 96 TYSP forecast	3,258	3,258	14,711
5	Market Case (Petition) FCP 9801 forecast 1% inflation increase	26,995	26,090	26,090
6	Market Case (Petition) FCP 9801 forecast Historic Cost of Capital	21,893	21,893	21,893
7	CC Case High 96 TYSP forecast 1% inflation increase	(2,763)	(2,763)	7,935
8	CC Case High 96 TYSP forecast Historic Cost of Capital	(2,973)	(2,973)	6,600

**Exhibit No. \_\_ (LCC-5)**

**FPC's Response to Staff Questions  
dated November 22, 1995**



**Florida  
Power  
CORPORATION**

**November 22, 1996**

**Ms. Judy Harlow  
Florida Public Service Commission  
Capital Circle Office Center  
2540 Shumark Oak Blvd.  
Tallahassee, FL. 32399-0890**

**Subject: FPC's petition for approval of the OCL contract buydown  
Response to questions regarding petition**

**Dear Ms. Harlow:**

**I am providing below, answers to questions raised at the meeting of November 20, 1996 relative to the above petition.**

**1) Please explain the difference between the fuel forecast assumptions used in FPC's April 1996 Ten Year Site Plan document as compared to the fuel forecast assumptions used in the cost justification for the OCL contract buyout.**

**A. The fuel forecast data included in the April 1996 Ten Year Site Plan document was from FPC's Fuel Cost Projection (FCP) 9301 which was issued on May 1, 1995. The more recent fuel forecast, FCP 9601 issued on January 16, 1996, was not available when the ten year site plan development process began in late 1995. As a result, fuel forecast FCP 9301 was used as the basis of the ten year site plan. At the time that FPC performed the economic evaluation of the OCL contract buyout and filed this data with the Commission on October 1, 1996 the most recent long term fuel forecast was FCP 9601. Since that time, a new long term fuel forecast (FCP 9603, see attached copy) was issued on October 28, 1996. The effect of this more recent forecast is addressed as a sensitivity analysis below.**

2) Why does the net present value (NPV) calculation of the customer savings include a factor which adjusts the NPV upwards by an amount representing a one-half year adjustment in the NPV result?

A. The NPV function in Excel 5.0 uses an end of period convention for the calculation of the net present value of a series of values. All of the values in the future series that the NPV function is applied to are discounted back to an NPV at time zero, including the first value of the series. In the present analysis, the annual customer savings have been assumed to be approximately evenly distributed throughout each year. Therefore, these values have been interpreted as being mid-year values. Applying the NPV function to this series of mid-year values for 1997-2023 results in an NPV value at mid-year of 1996. This result was then adjusted from 6/30/96 to the planned transaction date of 1/1/97 and the result was described in Exhibit D as the "Net present value as 1/1/97".

3) How does the cost of the OCL contract plus the cost of the contract buyout during 1997-2001 compare with the cost to customers if FPC had provided this capacity to customers from a coal-fired power plant owned by FPC with costs recovered from customers using traditional revenue requirements methods (straight line depreciation, etc.).

A. The attached analysis compares the annual capacity cost of the OCL contract to the capacity cost for an equivalent amount of coal-fired generation under traditional revenue requirements. As shown in column (3) of this analysis, the OCL contract has a lower cost than coal generation prior to 2003. When this difference is compared to the buyout cost for the OCL contract of \$9,881,000 per year during 1997-2001, the total cost to customers for the OCL contract including the buyout is lower than the coal generation alternative during 1997 and higher during 1998-2001 (columns 4 and 5). However, in this comparison, the OCL contract has already provided a cost reduction for customers during 1993-1996. When this benefit is recognized, the cost of the OCL contract including the proposed contract buyout is lower than the coal generation alternative. The total NPV difference between the OCL contract (excluding the buyout cost) and coal generation for 1993-2001 as of 1/1/97 is \$77.7 million (column 4) as compared to the NPV of the contract buyout cost of \$40.4 million (column 5). As a result, after considering the cost of the proposed OCL contract buyout, the cost to present customers is \$37.3 million lower on an NPV basis as compared to the coal-fired alternative.

4) Please provide a sensitivity analysis for the calculation of the NPV customer benefit resulting from the OCL contract buyout, including a calculation based on fuel forecast FCP 9603 and other cases discussed at the meeting of November 20, 1996.

A. The results of the sensitivity analysis cases are summarized below. Following this summary is a description of each case. The supporting data for each case will also be provided in hard copy and on computer disk for your review.

<u>Case Description</u>	(\$000) NPV <u>Customer</u> <u>Benefit</u>	(\$000) <u>Change</u>
Base Case as filed October 1, 1996	\$ 32,954	
Case #1: Fuel Forecast FCP 9603	\$ 32,188	(\$ 766)
Case #2: FPC 9603 fuel costs up 20%	\$ 34,102	\$ 1,148
Case #3: FPC 9603 fuel costs down 20%	\$ 30,274	(\$ 2,680)
Case #4: FCP 9603 & 100% marginal cost	\$ 29,957	(\$ 2,997)
Case #5: FCP 9603 gas up 20%, 100% marginal cost	\$ 24,089	(\$ 8,865)
Case #6: FCP 9603 gas down 20%, 100% marginal cost	\$ 35,825	\$ 2,871

**Case #1:** This case uses natural gas and coal price forecast data from FCP 9603. In the transition from fuel forecast #9601 to #9603 the coal price forecast was reduced. The natural gas price forecast was increased in the near term, with the cross-over point between the two forecasts in 2005. Note that the natural gas price forecast used in this analysis is slightly higher than the forecast contained in FCP 9603. The reason for this is that FCP 9603 used a blend of natural gas transportation on the Florida Gas Transmission (FGT) pipeline between lower cost FTS-1 and higher cost FTS-2 gas transportation rates. Due to the marginal nature of the present analysis, only the higher cost FTS-2 transportation rate was used as a component of the natural gas price forecast. This case uses the same weights for the component parts of the replacement cost forecast (contract, marginal and regional) as was used in the base case.

**Case #2:** This case uses natural gas and coal price forecast data from FCP 9603. In addition, this fuel price data has been increased by a factor of 20% by increasing each fuel price for each year by a factor of 20%. This case uses the same weights for the component parts of the replacement cost forecast (contract, marginal and regional) as was used in the base case.

**Case #3:** This case uses natural gas and coal price forecast data from FCP 9603. In addition, this fuel price data has been decreased by a factor of 20% by decreasing each fuel price for each year by a factor of 20%. This case uses the same weights for the component parts of the replacement cost forecast (contract, marginal and regional) as was used in the base case.



**Case #4:** This case uses natural gas and coal price forecast data from FCP 9603. This case changes the weights applied to the components of the replacement cost forecast (contract, marginal and regional) by increasing the weight on the marginal cost component to 100%. As a result, the replacement cost forecast is determined exclusively by the marginal cost forecast based on a natural gas fired combined cycle unit.

**Case #5:** This case uses natural gas and coal price forecast data from FCP 9603. As in Case #4, the weighting factor for the marginal cost component is 100%. As a result, the replacement cost forecast is determined exclusively by the marginal cost forecast based on a natural gas fired combined cycle unit. In addition, the natural gas price forecast was increased from the forecast in FCP 9603 by a factor of 20%. This was done by increasing the price for each year by a factor of 20%. Coal prices were taken directly from FCP 9603 without modification.

**Case #6:** This case uses natural gas and coal price forecast data from FCP 9603. As in Case #4 and #5, the weighting factor for the marginal cost component is 100%. As a result, the replacement cost forecast is determined exclusively by the marginal cost forecast based on a natural gas fired combined cycle unit. In addition, the natural gas price forecast was decreased from the forecast in FCP 9603 by a factor of 20%. This was done by decreasing the price for each year by a factor of 20%. Coal prices were taken directly from FCP 9603 without modification.

Sincerely,



Lee G. Schuster

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### Comparison of OCL Contract Buyout to Coal-fired Generation

	(1)	(2)	(3)	(4)	(5)
	OCL Contract Annual Capacity Cost	Coal Generation Annual Capacity Cost	Annual Ratepayer Benefit/(Cost)	Annual Ratepayer Benefit/(Cost)	Cost of OCL Contract Buyout
NPV at 11/1/95	\$194,677,398	\$194,677,398			
NPV at 1/1/97				\$77,781,572	\$48,410,536
1993	\$2,131,525	\$4,234,526	\$2,093,001	\$2,093,001	
1994	13,435,483	25,347,196	11,911,663	11,911,663	
1995	14,113,625	28,592,489	14,478,833	14,478,833	
1996	14,834,141	27,483,239	12,649,109	12,649,109	
1997	15,997,849	26,418,814	10,821,774	10,821,774	\$9,881,000
1998	16,381,139	25,389,139	9,018,021	9,018,021	9,881,000
1999	17,218,189	24,418,488	7,200,283	7,200,283	9,881,000
2000	18,097,882	23,473,266	5,377,714	5,377,714	9,881,000
2001	19,019,488	22,565,488	3,545,981	3,545,981	9,881,000
2002	19,994,389	21,674,346	1,680,943		
2003	21,011,981	20,795,112	(225,389)		
2004	22,082,374	19,937,879	(2,194,389)		
2005	23,215,431	19,099,645	(4,285,783)		
2006	24,391,986	18,121,411	(6,270,155)		
2007	25,641,872	17,233,178	(8,408,694)		
2008	26,945,157	16,344,944	(10,600,213)		
2009	28,333,389	15,486,719	(12,876,699)		
2010	29,783,644	14,668,477	(15,195,167)		
2011	31,300,442	13,889,343	(17,409,199)		
2012	32,889,418	12,792,889	(20,097,489)		
2013	34,552,953	11,988,776	(22,649,177)		
2014	36,322,454	11,113,733	(25,208,788)		
2015	38,176,721	10,388,842	(27,885,689)		
2016	40,115,735	10,000,941	(30,088,214)		
2017	42,171,343	9,589,488	(32,681,898)		
2018	44,311,888	9,048,439	(35,263,289)		
2019	46,579,282	8,577,373	(38,021,889)		
2020	48,982,685	8,084,873	(40,897,792)		
2021	51,483,377	7,573,817	(43,979,489)		
2022	54,078,444	7,082,781	(46,997,889)		
2023	56,835,951	6,609,261	(50,245,691)		

## Sensitivity Analysis for Savings to FPC Customers Due to OCL Contract Buyout (2002)

**Sensitivity Analysis Assumptions**

Fuel cost projection 2003 for coal and natural gas

Total generation cost forecast uses weighted average cost forecast (contract, marginal, regional)

Year	<u>Contract Case</u>			<u>Management Case</u>				<u>Customer Savings</u>
	<u>Capacity</u>	<u>Energy</u>	<u>Total</u>	<u>Capacity</u>	<u>Energy</u>	<u>Buyout Cost</u>	<u>Total</u>	
	(1)	(2)	(1)+(2)	(4)	(5)	(6)	(4)+(5)+(6)	(3)-(7)
1997	0	0	0	0	0	9,891	9,891	(9,891)
1998	0	0	0	0	0	9,891	9,891	(9,891)
1999	0	0	0	0	0	9,891	9,891	(9,891)
2000	0	0	0	0	0	9,891	9,891	(9,891)
2001	0	0	0	0	0	9,891	9,891	(9,891)
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	38,322	23,478	61,800	9,911	16,548	0	26,459	34,244
2015	38,177	24,291	62,467	9,248	16,729	0	25,977	36,455
2016	48,116	25,149	73,265	9,916	16,948	0	26,864	38,895
2017	42,171	25,911	68,082	9,789	16,997	0	26,786	41,298
2018	44,212	26,782	71,000	10,882	17,189	0	28,071	43,878
2019	48,879	27,888	76,767	10,241	17,316	0	27,557	46,608
2020	48,888	28,888	77,776	10,891	17,888	0	28,779	49,567
2021	51,488	29,888	81,376	10,889	17,878	0	28,767	52,500
2022	54,879	30,888	85,767	11,189	17,889	0	29,078	55,631
2023	58,888	31,887	90,775	11,478	18,888	0	30,366	58,961
<b>Total 2014-2023 =</b>			<b>672,738</b>				<b>227,474</b>	<b>448,034</b>
<b>Net present value at 11/87 =</b>			<b>917,488</b>				<b>288,293</b>	<b>632,188</b>

## Sensitivity Analysis for Savings to FPC Customers Due to OCL Contract Buyout (2003)

**Sensitivity Analysis Assumptions:**

Fuel cost projection 2003 for coal and natural gas

Coal and natural gas price forecasts increased by 20%

Total generation cost forecast uses weighted average cost forecast (contract, marginal, regional)

Year	<u>Contract Case</u>			<u>Replacement Case</u>				<u>Customer Savings</u>
	<u>Capacity</u>	<u>Energy</u>	<u>Total</u>	<u>Capacity</u>	<u>Energy</u>	<u>Buyout Cost</u>	<u>Total</u>	
	(1)	(2)	(3) (1)+(2)	(4)	(5)	(6)	(7) (4)+(5)+(6)	(8) (3)-(7)
1997	0	0	0	0	0	9,881	9,881	(9,881)
1998	0	0	0	0	0	9,881	9,881	(9,881)
1999	0	0	0	0	0	9,881	9,881	(9,881)
2000	0	0	0	0	0	9,881	9,881	(9,881)
2001	0	0	0	0	0	9,881	9,881	(9,881)
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	38,322	28,419	66,741	8,911	18,491	0	27,501	35,240
2015	38,177	27,288	65,465	8,345	18,728	0	27,873	37,480
2016	48,116	28,291	76,407	8,915	18,894	0	28,399	39,979
2017	42,171	28,114	70,285	8,788	18,882	0	28,871	42,414
2018	44,312	28,878	73,190	10,882	18,288	0	29,361	45,037
2019	48,879	31,873	80,752	10,341	18,882	0	29,843	47,809
2020	48,888	32,188	81,076	10,881	18,728	0	30,320	50,825
2021	51,483	32,173	83,656	10,888	18,888	0	30,820	53,798
2022	54,879	34,278	89,157	11,188	20,188	0	31,374	56,975
2023	58,838	36,484	95,322	11,478	20,488	0	31,904	60,358
<b>Total 2014-2023 =</b>			<b>878,287</b>				<b>628,288</b>	<b>249,921</b>
<b>Net present value at 11/87 =</b>			<b>812,918</b>				<b>588,814</b>	<b>224,102</b>

## Sensitivity Analysis for Savings to FPC Customers Due to OCL Contract Buyout 2023

**Sensitivity Analysis Assumptions:**

Fuel cost projection 2023 for coal and natural gas

Coal and natural gas price forecasts decreased by 30%

Total generation cost forecast uses weighted average cost forecast (contract, marginal, regional)

Year	<u>Contract Case</u>			<u>Replacement Case</u>				Customer Savings
	(1) Capacity	(2) Energy	(3) Total	(4) Capacity	(5) Energy	(6) Buyout Cost	(7) Total	
	(1)+(2)			(4)+(5)+(6)				(3)-(7)
1997	0	0	0	0	0	0,001	0,001	(0,001)
1998	0	0	0	0	0	0,001	0,001	(0,001)
1999	0	0	0	0	0	0,001	0,001	(0,001)
2000	0	0	0	0	0	0,001	0,001	(0,001)
2001	0	0	0	0	0	0,001	0,001	(0,001)
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	38,322	20,937	59,259	9,011	14,999	0	23,011	33,248
2015	38,177	21,238	59,412	9,348	14,748	0	23,091	38,430
2016	40,116	22,019	62,135	9,016	14,999	0	24,323	37,811
2017	42,171	22,709	64,880	9,709	14,911	0	24,620	40,181
2018	44,312	23,487	67,799	10,022	15,018	0	25,040	42,718
2019	46,579	24,263	70,873	10,341	15,129	0	25,470	45,402
2020	48,963	25,109	74,101	10,691	15,282	0	25,943	48,308
2021	51,463	25,997	77,460	10,992	15,382	0	26,348	51,204
2022	54,070	26,898	80,967	11,199	15,482	0	26,680	54,288
2023	56,838	27,829	84,665	11,479	15,622	0	27,098	57,567
<b>Total 2014-2023 =</b>			<b>909,199</b>				<b>922,949</b>	<b>948,147</b>
<b>Net present value at 11/87 =</b>			<b>912,048</b>				<b>931,772</b>	<b>939,274</b>

## Sensitivity Analysis for Savings to FPC Customers Due to OCL Contract Buyout (2003)

**Sensitivity Analysis Assumptions:**

Fuel cost projection 2003 for coal and natural gas

Total generation cost forecast has 100% weight on marginal cost forecast

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<u>Contract Case</u>			<u>Replacement Case</u>				
			(1)+(2)			Buyout	(4)+(5)+(6)	(3)-(7)
<u>Year</u>	<u>Capacity</u>	<u>Energy</u>	<u>Total</u>	<u>Capacity</u>	<u>Energy</u>	<u>Cost</u>	<u>Total</u>	<u>Customer Savings</u>
1997	0	0	0	0	0	9,891	9,891	(9,891)
1998	0	0	0	0	0	9,891	9,891	(9,891)
1999	0	0	0	0	0	9,891	9,891	(9,891)
2000	0	0	0	0	0	9,891	9,891	(9,891)
2001	0	0	0	0	0	9,891	9,891	(9,891)
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	38,322	23,478	61,800	9,911	18,917	0	28,827	33,873
2015	38,177	24,391	62,437	9,349	17,388	0	26,737	35,699
2016	40,118	25,149	65,288	9,915	17,768	0	27,221	38,036
2017	42,171	25,911	68,083	9,788	18,118	0	27,904	40,179
2018	44,312	26,782	71,095	10,892	18,999	0	29,891	42,486
2019	46,579	27,683	74,262	10,341	18,997	0	29,338	44,924
2020	48,983	28,608	77,591	10,891	19,419	0	29,891	47,697
2021	51,463	29,568	81,031	10,899	19,894	0	30,727	50,311
2022	54,070	30,569	84,639	11,189	20,399	0	31,519	53,139
2023	56,838	31,627	88,465	11,478	20,899	0	32,388	56,178
<b>Total 2014-2023 =</b>			<b>6732,738</b>				<b>6389,639</b>	<b>8442,798</b>
<b>Not present value at 1/1/97 =</b>			<b>9117,489</b>				<b>987,923</b>	<b>929,967</b>



## Sensitivity Analysis for Savings to FPC Customers Due to OCL Contract Buyout (2000)

**Sensitivity Analysis Assumptions:**

Fuel cost projection 2000 for coal and natural gas

Natural gas price forecasts increased by 20% (coal price forecast unchanged from FCP 2003)

Total generation cost forecast has 100% weight on marginal cost forecast

Year	<u>Contract Case</u>			<u>Replacement Case</u>				<u>Customer Savings</u>
	<u>Capacity</u>	<u>Energy</u>	<u>(1)+(2)</u>	<u>Capacity</u>	<u>Energy</u>	<u>Buyout Cost</u>	<u>(4)+(5)+(6)</u>	
								<u>(3)-(7)</u>
1997	0	0	0	0	0	9,891	9,891	(9,891)
1998	0	0	0	0	0	9,891	9,891	(9,891)
1999	0	0	0	0	0	9,891	9,891	(9,891)
2000	0	0	0	0	0	9,891	9,891	(9,891)
2001	0	0	0	0	0	9,891	9,891	(9,891)
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	38,322	23,478	61,800	9,911	20,189	0	29,100	30,631
2015	38,177	24,201	62,377	9,243	20,834	0	29,898	32,570
2016	40,118	25,148	65,266	9,915	21,182	0	30,917	34,639
2017	42,171	25,911	68,082	9,798	21,892	0	31,380	36,702
2018	44,312	26,782	71,094	10,892	22,895	0	32,167	38,836
2019	46,579	27,893	74,472	10,341	22,911	0	32,982	41,310
2020	48,993	28,999	77,949	10,991	23,149	0	33,722	43,927
2021	51,493	29,999	81,499	10,999	23,894	0	34,547	46,491
2022	54,079	30,999	84,999	11,199	24,342	0	35,430	49,228
2023	56,838	31,927	88,498	11,478	24,914	0	36,290	52,173
<b>Total 2014-2023 =</b>			<b>9732,739</b>				<b>\$326,132</b>	<b>\$486,866</b>
<b>Net present value at 1/1/97 =</b>			<b>9117,499</b>				<b>993,391</b>	<b>\$24,889</b>

## Sensitivity Analysis for Savings to FPC Customers Due to OCL Contract Buyout (2003)

**Sensitivity Analysis Assumptions:**

Fuel cost projection 2003 for coal and natural gas

Natural gas price forecasts decreased by 20% (coal price forecast unchanged from FCP 2003)

Total generation cost forecast has 100% weight on marginal cost forecast

Year	<u>Contract Case</u>			<u>Replacement Case</u>				Customer Savings	
	(1) Capacity	(2) Energy	(3) Total	(4) Capacity	(5) Energy	(6) Buyout Cost	(7) Total		
	(1)+(2)			(4)+(5)+(6)				(3)-(7)	
1997	0	0	0	0	0	9,881	9,881	(9,881)	
1998	0	0	0	0	0	9,881	9,881	(9,881)	
1999	0	0	0	0	0	9,881	9,881	(9,881)	
2000	0	0	0	0	0	9,881	9,881	(9,881)	
2001	0	0	0	0	0	9,881	9,881	(9,881)	
2002	0	0	0	0	0	0	0	0	
2003	0	0	0	0	0	0	0	0	
2004	0	0	0	0	0	0	0	0	
2005	0	0	0	0	0	0	0	0	
2006	0	0	0	0	0	0	0	0	
2007	0	0	0	0	0	0	0	0	
2008	0	0	0	0	0	0	0	0	
2009	0	0	0	0	0	0	0	0	
2010	0	0	0	0	0	0	0	0	
2011	0	0	0	0	0	0	0	0	
2012	0	0	0	0	0	0	0	0	
2013	0	0	0	0	0	0	0	0	
2014	36,322	23,478	59,800	6,011	13,675	0	22,686	37,115	
2015	36,177	24,291	60,467	6,243	13,988	0	23,232	36,208	
2016	40,116	25,149	65,265	6,916	14,389	0	23,634	41,431	
2017	42,171	25,911	68,082	6,788	14,639	0	24,427	43,656	
2018	44,312	26,762	71,074	10,662	14,977	0	25,639	46,054	
2019	46,579	27,623	74,202	10,341	15,234	0	25,575	48,567	
2020	48,983	28,525	77,508	10,591	15,599	0	26,291	51,387	
2021	51,463	29,526	81,000	10,828	16,045	0	26,908	54,130	
2022	54,079	30,599	84,678	11,169	16,419	0	27,608	57,060	
2023	56,836	31,837	88,673	11,478	16,884	0	28,290	60,183	
Total 2014-2023 =			872,739					823,929	8478,818
Net present value at 11/87 =			917,469					991,868	938,825



**Florida  
Power**  
CORPORATION

# INTEROFFICE CORRESPONDENCE

Fuels Supply Department

OFFICE

C2B

MAC

231-4532

TELEPHONE

**SUBJECT: Fuel Cost Projection  
FCP 9603**

**TO: Mr. M. D. Rib  
Mr. K. H. Wieland**

**DATE: October 28, 1986**

Please find attached a summary of FCP 9603. This forecast updates the long range fuel cost projection.

The format for providing the forecast has been changed to facilitate input into PROMOD. Attached is an Assumption Summary, and a chart comparing FCP 9603 and FCP 9601, and a graph of FCP 9603. A more detailed spreadsheet has been provided to Larry Welch for PROMOD input. This spreadsheet can be provided, if needed, to others, upon request.

If you have any questions or require additional information, please advise.

*Dale Williams*  
Dale Williams

**Attachment:**

**DDW/v**

**xc: J. W. Agee  
G. A. Aldazabal  
L. D. Brousseau  
M. L. Daley  
R. D. Dolan  
D. G. Edwards  
J. A. Hancock  
J. M. Kennedy  
J. R. Lindquist  
G. E. Matzke  
P. Z. McGovern  
W. C. Mickdon**

**R. D. Nickum  
D. M. OShea  
G. L. Peterson  
J. M. Quinnivan  
J. R. Rocha  
L. G. Schuster  
J. L. Simpson  
P. E. Toomey  
T. L. Waldmann  
L. A. Welch  
File  
Forecast Book**

# LONG RANGE FUEL FORECAST

FCP 9603

## ASSUMPTIONS SUMMARY

### Coal

Coal price projections are provided by EFC and are based on the assumption that the Crystal River units continue to burn the same quality of coal that they currently use and that the current transportation mix between barge and rail is maintained. EFC has projected out the cost of coal and transportation based on the terms of existing contracts and has used market forecasts from Hill & Associates and RDI as guidelines for future contract and spot prices. Over the ten year period from 1997 to 2006, medium sulfur coal increases in price from about \$43/ton to about \$49/ton and low sulfur coal increases in price from about \$51/ton to about \$55/ton. Coal prices are expected to escalate at a rate of about 1% per year.

### Natural Gas

Natural Gas prices are based on forecasted Gulf Coast market prices for gas supply and estimated Florida Gas Transmission Company tariffs for transportation. The market price forecast for natural gas supply is based in part on information from PIRA, the futures market and the physical market place. Transportation estimates are based on current tariffs and estimates of future changes in those tariffs over time. Delivered natural gas to the University of Florida Project, for example, is expected to cost about \$2.87/MMBtu in 1997 decreasing to \$2.76/MMBtu by 2000 and then increasing to \$2.96/MMBtu by 2006, an increase of around 3% over the ten year period.

Hines Plant gas should average slightly higher in price due to higher firm transportation costs.

### Oil

Residual Fuel Oil (#6) prices are based on forecasted Gulf Coast market prices plus barge transportation costs to Florida. Distillate Fuel Oil (#2) prices are also based on the Gulf Coast market plus barge transportation to Florida. In addition, inland freight and handling costs need to be added to produce a delivered price

to each location. Information from PIRA, futures market prices for Crude and #2 oil and physical market intelligence is utilized to develop the #2 and #6 oil price forecast. Over the period high sulfur #6 oil prices increase from about \$16/bbl in 1997 to about \$17.50/bbl in 2006 for an average change of less than 1% per year. #2 oil goes from about 63¢/gallon in 1997 to about 66¢/gallon by 2006. Like natural gas, a decrease is expected over the next couple of years down to about 62¢/gallon in 1998. The overall change in #2 oil over the ten years is about 4%.

## Key Market Drivers

### Coal

- In the short and medium term the coal price forecast is primarily driven by EPC's cost structure and contract commitments. Longer term market drivers include the expectation that coal mine productivity improvements and abundant supply will continue to keep Appalachian low and medium sulfur coals from increasing in price significantly. PPC's transportation costs will be controlled by the ongoing competition between the rail and barge modes.

### Natural Gas

- Technology improvements in exploration and production will continue to moderate cost increases for natural gas supply especially in the Gulf of Mexico. Producers continue to find ways to economically develop reserves offshore in deeper waters and further underground. Competition between #6 fuel oil and natural gas will be a relatively minor factor in natural gas markets nationwide due to the relatively few dual-fuel plants remaining in the Northeast, Mid-Atlantic and Florida areas. Natural gas transportation prices will continue to be constrained through federal rate regulations.

### Oil

- International market forces play a major part in determining the price of #6 oil and #2 oil. OPEC's control of the crude oil market is expected to be limited by the continued growth of Non-OPEC crude oil production. Worldwide, the growth in oil production is being facilitated by the same technological innovations seen in the U.S. natural gas market; deeper, faster and cheaper are the expectations. In addition, as more government controlled oil producers open up to private investment, productivity and supply will also increase. #6 oil production in the U.S. Gulf will continue to be a limited market with relatively few buyers, sellers and transporters. This will make for a very volatile market when supply and demand get out of balance. #2 oil prices will be driven more by national and international trends because of its worldwide use as a transportation and heating fuel.

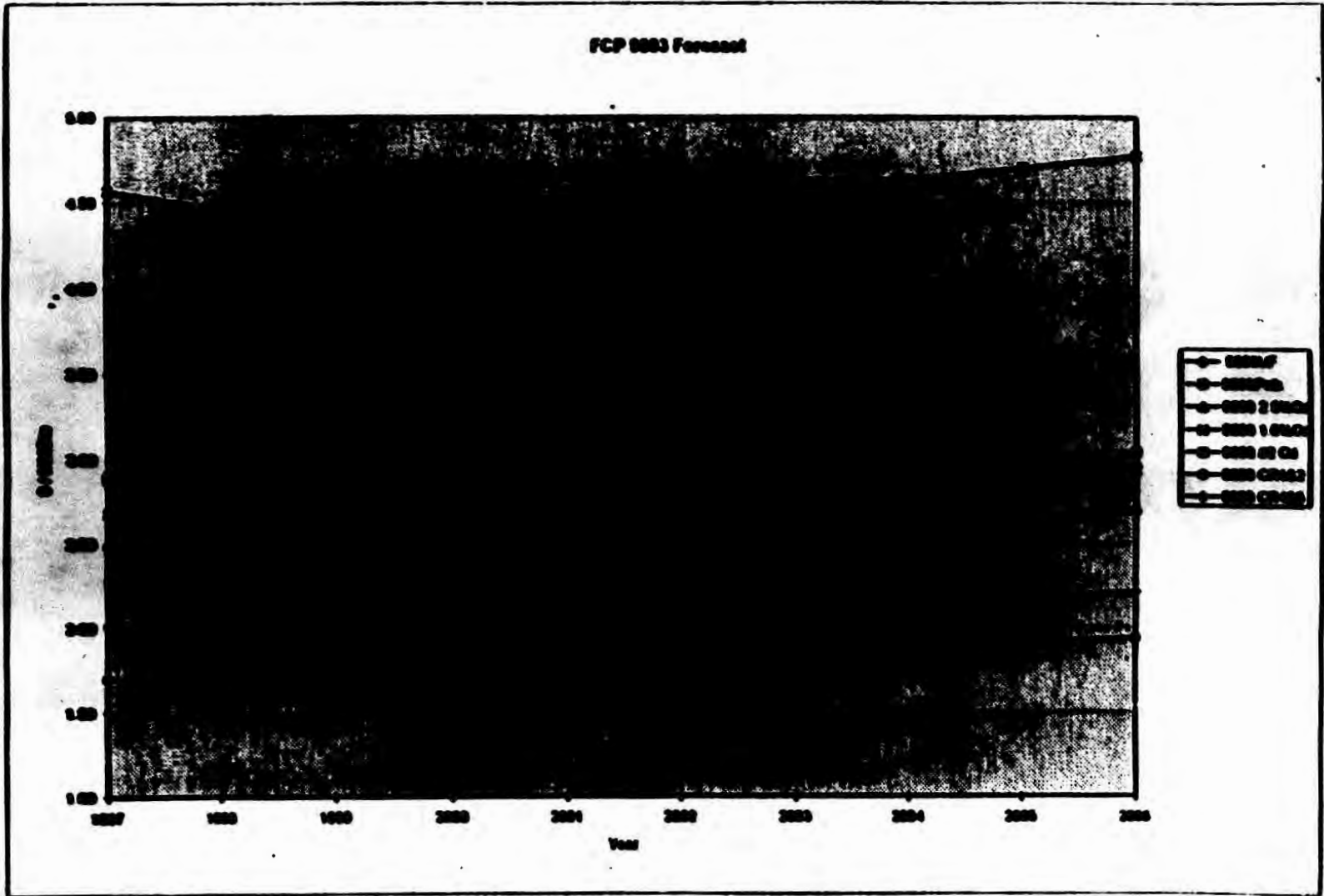


Fuel Forecast Comparison FCP9901 Vs.FCP9903

Year	U of F Gas		Pulv Gas		High Sulfur Oil		Low Sulfur Oil		Distillate Oil		Crystal River 1 & 2		Crystal River 4 & 5	
	9901UF	9903UF	9901Pulv	9903Pulv	2.0% O2	2.0% O2	1.0% O2	1.0% O2	9901 O2	9903 O2	9901 CR1&2	9903 CR1&2	9901 CR4&5	9903 CR4&5
1997	2.85	2.87	2.85	2.89	2.35	2.39	2.89	2.89	4.89	4.87	1.71	1.70	2.02	2.02
1998	2.65	2.62	2.65	2.69	2.35	2.39	2.89	2.89	4.89	4.86	1.72	1.71	2.04	2.00
1999	2.69	2.70	2.69	2.84	2.35	2.39	2.89	2.89	4.19	4.49	1.77	1.73	2.07	2.05
2000	2.65	2.70	2.65	2.84	2.35	2.39	2.85	2.73	4.19	4.49	1.81	1.74	2.12	2.10
2001	2.79	2.81	2.79	2.89	2.35	2.39	2.85	2.81	4.19	4.89	1.84	1.77	2.15	2.12
2002	2.89	2.89	2.89	2.94	2.35	2.39	2.85	2.81	4.29	4.89	1.87	1.81	2.19	2.09
2003	2.89	2.89	2.89	2.94	2.35	2.81	2.75	2.85	4.49	4.63	1.84	1.84	2.22	2.11
2004	3.09	2.91	3.09	2.89	2.45	2.81	2.89	2.85	4.85	4.63	1.89	1.87	2.19	2.15
2005	3.19	2.89	3.19	3.04	2.89	2.89	3.09	2.89	4.75	4.79	2.01	1.81	2.22	2.19
2006	3.29	2.89	3.29	3.04	2.85	2.79	3.19	2.89	4.95	4.77	2.04	1.84	2.25	2.21

Year	U of F Gas	Pulv Gas	High Sulfur Oil	Low Sulfur Oil	Distillate Oil	Crystal River 1 & 2	Crystal River 4 & 5
	U of F Gas 9901 - 9903	Pulv Gas 9901 - 9903	2.0% O2 9901 - 9903	1.0% O2 9901 - 9903	9901 - 9903	CR1&2 9901 - 9903	CR4&5 9901 - 9903
1997	0.02	0.04	0.04	0.10	0.07	-0.01	0.00
1998	0.27	0.04	0.04	0.10	0.46	-0.01	-0.01
1999	0.10	0.24	0.04	0.10	0.30	-0.04	-0.01
2000	0.11	0.19	0.04	0.10	0.30	-0.07	-0.02
2001	0.11	0.10	0.04	0.04	0.46	-0.07	-0.03
2002	0.05	0.14	0.04	0.10	0.35	-0.05	-0.11
2003	-0.04	0.04	0.04	0.10	0.23	-0.1	-0.11
2004	-0.09	-0.01	0.10	-0.05	0.66	-0.11	-0.03
2005	-0.14	-0.05	0.05	-0.11	-0.05	-0.1	-0.04
2006	-0.24	-0.15	0.05	-0.17	-0.18	-0.1	-0.05

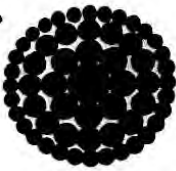
FCP 0003 Forecast





**Exhibit No. \_\_ (LCC-6)**

**FPC's Response to Staff Questions  
dated November 28, 1999**



**Florida  
Power**  
CORPORATION

November 26, 1996

**Ms. Judy Harlow  
Florida Public Service Commission  
Capital Circle Office Center  
2540 Shumark Oak Blvd.  
Tallahassee, FL. 32399-0830**

**Subject: FPC's petition for approval of the OCL contract buydown  
Response to questions regarding petition**

**Dear Ms. Harlow:**

As we discussed today, I am providing one additional sensitivity case for your review. This case is labeled OCL7 and is based on inflation assumptions (CPI-U and GDP implicit price deflator) from DRI/McGraw Hill's November 1996 TrendLong1996 forecast.

Sincerely,

**Lee G. Schuster**

cc: **J. A. McGee  
J. Rocha**

## Sensitivity Analysis for Savings to FPC Customers Due to OCL Contract Buyout (2000)

**Sensitivity Analysis Assumptions:**

Fuel cost projection 1999 for coal and natural gas

Total generation cost forecast uses weighted average cost forecast (contract, marginal, regional)

Inflation assumptions from OPA/DOE 1998 November 1998 Trend/Long Term Forecast

Year	Contract Case			Replacement Case				Customer Savings
	(1) Capacity	(2) Energy	(3) Total	(4) Capacity	(5) Energy	(6) Buyout Cost	(7) Total	
	(1)+(2)			(4)+(5)+(6)				(3)-(7)
1997	0	0	0	0	0	0.001	0.001	(0.001)
1998	0	0	0	0	0	0.001	0.001	(0.001)
1999	0	0	0	0	0	0.001	0.001	(0.001)
2000	0	0	0	0	0	0.001	0.001	(0.001)
2001	0	0	0	0	0	0.001	0.001	(0.001)
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	20,202	20,000	20,401	0,004	10,101	0	20,725	33,000
2015	20,177	20,000	20,000	0,040	10,200	0	20,180	30,040
2016	42,116	24,000	24,700	10,100	10,200	0	20,632	30,223
2017	42,171	20,000	27,010	10,400	10,400	0	20,900	40,900
2018	44,312	20,100	70,401	10,000	10,000	0	27,300	43,070
2019	42,070	20,070	70,000	11,100	10,070	0	27,000	40,720
2020	40,000	27,000	70,000	11,401	10,700	0	20,207	40,011
2021	01,400	20,700	00,100	11,000	10,001	0	20,720	51,400
2022	04,070	20,000	00,700	12,200	10,000	0	20,220	04,401
2023	00,000	00,000	07,000	12,000	17,000	0	20,722	07,717
<b>Total 2014-2023 =</b>			<b>070,000</b>				<b>0270,014</b>	<b>0440,007</b>
<b>Not present value at 1997 =</b>			<b>0110,000</b>				<b>000,007</b>	<b>030,007</b>

**Explanation of calculations:**

- Column(1) = Column(10) \* Input(20) \* Input(21) \* Input(22) / Input(23) \* Input(24)
- Column(2) = Column(1) + Column(17)
- Column(3) = Column(1) + Column(2)
- Column(4) = Column(10) \* Input(25) \* Input(26)
- Column(5) = Column(21) \* Column(10) / 1000
- Column(6) = Buyout payments per Contract Amendment dated September 20, 1998
- Column(7) = Column(4) + Column(5) + Column(6)
- Column(8) = Column(3) - Column(7)

**Florida Power Corporation**  
**Supporting Information to Exhibit D, FPC Petition Dated October 1, 1996**  
**Savings to FPC Customers Due to OCL Contract Buyout**

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Contract Fuel Cost \$/MWh	Deferred Energy Cost \$/MWh	Energy Rate \$/MWh	Perform. Adjst. \$/MWh	Contract Fuel Cost \$/MWh	CRF&S Cost \$/MWh	Projected Inflation Rate Percent	Contract Capacity Cost \$/KW-yr
1997	0	0	0.00	1.34	1.701	1.70	3.0%	14.72
1998	0	0	0.00	1.35	1.701	1.71	2.8%	15.46
1999	0	0	0.00	1.37	1.812	1.73	2.9%	16.25
2000	0	0	0.00	1.38	1.823	1.74	3.0%	17.08
2001	0	0	0.00	1.40	1.824	1.77	3.2%	17.95
2002	0	0	0.00	1.41	1.888	1.81	3.4%	18.87
2003	0	0	0.00	1.43	1.888	1.84	3.2%	19.83
2004	0	0	0.00	1.44	1.900	1.87	3.0%	20.86
2005	0	0	0.00	1.45	2.001	1.91	3.7%	21.91
2006	0	0	0.00	1.47	2.022	1.94	3.8%	23.02
2007	0	0	0.00	1.48	2.024	1.98	3.8%	24.20
2008	0	0	0.00	1.50	2.127	2.04	3.8%	25.43
2009	0	0	0.00	1.51	2.182	2.09	3.8%	26.74
2010	0	0	0.00	1.53	2.247	2.15	3.8%	28.09
2011	0	0	0.00	1.54	2.305	2.20	3.8%	29.53
2012	0	0	0.00	1.55	2.355	2.25	3.8%	31.04
2013	0	0	0.00	1.55	2.403	2.31	3.8%	32.61
2014	18,341	688,289	24.84	1.55	2.455	2.37	3.8%	34.26
2015	18,710	688,289	24.82	1.51	2.545	2.43	3.8%	36.03
2016	18,148	648,887	25.22	1.52	2.613	2.49	3.8%	37.86
2017	16,484	688,289	25.64	1.54	2.688	2.55	3.8%	39.89
2018	16,898	688,289	25.47	1.55	2.748	2.62	3.8%	41.82
2019	17,312	688,289	27.12	1.57	2.816	2.69	3.8%	43.98
2020	17,735	648,887	27.75	1.58	2.888	2.75	3.8%	46.20
2021	18,171	688,289	28.47	1.71	2.955	2.82	3.8%	48.58
2022	18,617	688,289	28.17	1.72	3.008	2.89	3.8%	51.03
2023	19,074	688,289	28.88	1.74	3.116	2.97	3.8%	53.64

**Description of calculations:**

Column(9) = Column(16) \* Column(11) / 1000

Column(10) = Input(26) \* Input(27) \* (2,700 hours/year) (adjusted for leap years)

Column(11) = Column(12) \* Input(28) \* (( Input(24) \* Input(27) + Input(25) ) / 24) + Column(12)

Column(12) = Estimate of projected performance adjustment by Purchased Power Resources Dept.

Column(13) = Base value of 1.70\$/MWh in 1998 per Settlement Agreement indexed to Column(14)

Column(14) = From FPC Fuel Purchase 00001 dated January 15, 1998

Column(15) = CP4-U Item 678 Trans.Long1 1998

Column(16) = From Contract Appendix C, Schedule 4, Option A

**Florida Power Corporation**  
**Supporting Information to Exhibit B, FPC Petition Dated October 1, 1998**  
**Savings to FPC Customers Due to GCL Contract Buyout**

	(17)	(18)	(19)	(20)	(21)	(22)
	Variable	Variable	Capacity	Capacity	Energy	Total
	OMR Cost	OMR Rate	Cost	Cost	Cost	Replace
	2000	2000	2000-00	2000-00	2000	Cost
	2000	2000	2000-00	2000-00	2000	2000
1997	0	6.25	6.00	72.02	21.55	31.16
1998	0	6.54	6.10	72.35	21.55	31.55
1999	0	6.84	6.10	74.35	21.55	32.13
2000	0	7.14	6.20	75.12	20.50	32.38
2001	0	7.40	6.20	76.20	20.51	32.53
2002	0	7.60	6.40	77.70	21.52	31.30
2003	0	8.10	6.50	79.50	21.52	32.05
2004	0	8.52	7.00	81.50	22.05	34.07
2005	0	8.90	7.50	84.37	22.27	35.34
2006	0	9.20	8.14	87.84	22.40	35.84
2007	0	9.72	8.25	89.82	22.54	36.10
2008	0	10.10	8.40	101.47	22.54	35.71
2009	0	10.52	8.71	104.50	24.12	37.37
2010	0	11.00	8.80	107.55	24.41	38.05
2011	0	11.50	9.22	110.00	24.70	38.74
2012	0	12.11	9.40	112.55	25.00	39.44
2013	0	12.50	9.70	117.22	25.15	40.00
2014	7,700	12.25	10.00	120.70	25.25	40.64
2015	8,167	12.62	10.20	124.20	25.50	41.22
2016	8,485	14.45	10.70	128.20	25.54	41.92
2017	8,600	15.10	11.54	132.40	25.50	42.60
2018	9,251	15.70	11.20	125.50	25.50	43.20
2019	9,897	16.40	11.70	140.00	25.92	43.60
2020	10,120	17.20	12.00	144.71	25.31	44.07
2021	10,507	18.00	12.44	148.20	25.40	45.41
2022	11,002	18.51	12.50	154.52	25.52	45.22
2023	11,500	19.00	12.20	159.42	25.70	47.00

**Description of calculations:**

- Column(17) = Column(16) \* Column(18) \* ( Input(24) \* Input(27) + Input(28) ) / 24 / 1000
- Column(18) = From Settlement Agreement dated February 2, 1998
- Column(19) = Column(20) / 12
- Column(20) = From FPC generation cost forecast dated June 25, 1998
- Column(21) = 1997-2000 = FPC on-system replacement cost from Column(20)  
 2004-2023 = capacity and energy replacement cost  
 = Column(20) - ( Column(20) / ( 8,700 hours/year \* Capacity Factor ) )
- Column(22) = From FPC generation cost forecast dated June 25, 1998

**Florida Power Corporation**  
**Supporting Information to Exhibit B, FPC Petition Dated October 1, 1998**  
**Savings to FPC Customers Due to OCL Contract Buyout**

	(23)	(24)	(25)	(26)	(27)
	Energy	Combined	Natural	Gas	Variable
	Cost	Cycle Unit	Gas Cost	Transport	Cost
	\$/MWH	\$/MWH	\$/MWH	\$/MWH	\$/MWH
1997	21.38	28.78	2.18	0.88	0.88
1998	21.38	28.38	2.11	0.88	0.88
1999	21.38	28.84	2.18	0.88	0.91
2000	20.89	18.97	2.88	0.88	0.92
2001	20.91	18.97	2.88	0.88	0.94
2002	21.32	28.97	2.18	0.97	0.98
2003	21.82	28.88	2.18	0.88	0.98
2004	21.88	28.88	2.18	0.88	0.98
2005	22.38	21.88	2.38	0.88	0.98
2006	22.88	21.82	2.38	0.88	1.08
2007	22.84	21.82	2.38	0.88	1.02
2008	23.18	22.87	2.31	0.88	1.08
2009	23.87	22.88	2.37	1.08	1.04
2010	24.88	23.88	2.48	1.01	1.08
2011	24.88	23.48	2.48	1.02	1.07
2012	25.88	23.87	2.88	1.08	1.08
2013	25.88	24.47	2.81	1.04	1.18
2014	25.88	24.88	2.88	1.08	1.11
2015	25.88	25.81	2.78	1.08	1.12
2016	27.18	25.84	2.82	1.07	1.13
2017	27.74	25.88	2.88	1.08	1.18
2018	28.32	27.18	2.88	1.08	1.18
2019	28.91	27.73	3.04	1.18	1.17
2020	28.91	28.32	3.11	1.11	1.18
2021	28.13	28.88	3.18	1.12	1.28
2022	28.78	28.84	3.27	1.13	1.21
2023	31.48	28.18	3.38	1.18	1.23

**Explanation of calculations:**

Column(23) = Column(24) + Column(27)

Column(24) = ( Column(25) + Column(26) ) \* Input(28) / 1000

Column(25) = From FPC Fuel Forecast 08001 dated January 16, 1998

Column(26) = From FPC Fuel Forecast 08001 dated January 16, 1998

Column(27) = Projection by FPC Purchased Power Resources Dept.

**Florida Power Corporation**  
**Supporting Information to Exhibit B, FPC Petition Dated October 1, 1988**  
**Savings to FPC Customers Due to OCL Contract Buyout**

<b>Input Data</b>	<b>Description</b>	<b>Value</b>
(20)	FPC cost of capital (discount rate)-OIG	8.67%
(20)	Contract committed capacity - MW	79.2
(20)	Overall capacity factor	92.0%
(31)	Capacity payment discount factor	0.998
(32)	Minimum on-peak capacity factor	93.0%
(32)	Contract committed on-peak capacity factor	93.0%
(34)	On-peak energy payment discount factor	0.98
(35)	Contract Heat rate BTU/KWH	9,530
(35)	Combined Cycle Unit Heat rate BTU/KWH	6,700
(37)	On-peak hours per day	13
(38)	On-peak hours per day	11
(38)	Months per year	12

**Description of calculations:**

- Input(20) = From FPC Engineering Economy Manual, Table 1, Page 1 dated November 7, 1988
- Input(20) = From Section 7.1 of Contract, as amended by side letter dated September 27, 1988
- Input(20) = Annual composite capacity factor (on-peak and off-peak)
- Input(31) = From Contract Section 6.4
- Input(32) = From Appendix C, Schedule 3 of Contract
- Input(32) = From Section 7.1 of Contract
- Input(34) = From Settlement Agreement, Attachment 2, Appendix B, dated February 3, 1988
- Input(35) = From Contract Appendix C, Schedule 3
- Input(35) = From FPC generation cost forecast dated June 28, 1988
- Input(37) = From Contract Appendix C, Schedule 3
- Input(38) = From Contract Appendix C, Schedule 3



**Florida Power Corporation**  
**Supporting Information to Exhibit B, FPC Petition Dated October 1, 1998**  
**Savings to FPC Customers Due to OCL Contract Buyout**

	(1)	(2)	(3)	(4)	(5)	(6)
	Cost Inflation Rate Percent	Technology Efficiency Index Percent	Combined Cycle Cost \$/MWh	Fixed Charge Rate Percent	Netless Capacity Cost \$/MWh-year	Marginal Analysis Cost \$/MWh
1997	2.3%	0.50%	434.7	0.1000	73.02	30.04
1998	2.3%	0.50%	442.0	0.1007	73.25	30.05
1999	2.4%	0.50%	450.0	0.1000	74.25	30.97
2000	2.6%	0.50%	458.5	0.1005	75.12	30.42
2001	2.6%	0.50%	470.0	0.1000	76.20	30.90
2002	2.6%	0.50%	481.3	0.1010	77.70	31.30
2003	2.6%	0.50%	492.0	0.1014	79.05	32.01
2004	18.0%	0.50%	504.3	0.1000	81.00	32.00
2005	3.1%	0.50%	519.0	0.1000	84.37	34.25
2006	3.3%	0.50%	532.1	0.1000	87.04	36.01
2007	3.3%	0.50%	544.2	0.1012	90.02	36.20
2008	3.3%	0.50%	556.0	0.1000	101.47	36.97
2009	3.3%	0.50%	568.3	0.1002	104.00	36.00
2010	3.3%	0.50%	579.2	0.1000	107.00	37.70
2011	3.3%	0.50%	592.7	0.1000	110.00	38.00
2012	3.3%	0.50%	712.0	0.1000	113.00	39.00
2013	3.3%	0.50%	725.0	0.1000	117.22	40.40
2014	3.3%	0.50%	738.0	0.1000	120.75	41.41
2015	3.3%	0.50%	751.1	0.1002	124.20	42.40
2016	3.3%	0.50%	805.0	0.1001	128.20	43.40
2017	3.3%	0.50%	820.0	0.1000	132.45	44.54
2018	3.3%	0.50%	831.0	0.1000	136.00	46.04
2019	3.3%	0.50%	835.0	0.1004	140.00	46.70
2020	3.3%	0.50%	910.0	0.1070	144.71	47.97
2021	3.3%	0.50%	940.1	0.1070	148.20	49.00
2022	3.3%	0.50%	950.0	0.1070	154.00	50.20
2023	3.3%	0.50%	1012.0	0.1074	160.42	51.02

**Description of calculations:**

Column(1) = Capital cost inflation assumption = GDP implicit price deflator from DRI TrendLong199

Column(2) = Combined cycle technology improvement assumption

Column(3) = Combined cycle capital cost assumption

1999 = \$450\$/MWh

After 1999 = (Previous year value) \* ( 1 + Column(1) - Column(2) )

Column(4) = Annual fixed charge rate assumption

Column(5) = Column (3) \* Column(4)

**Florida Power Corporation**  
**Supporting Information to Exhibit B, FPC Petition Dated October 1, 1998**  
**FPC Fuel Forecast Comparison Data**

	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>
	<b>Current</b>	<b>Current</b>	<b>Gas</b>	<b>Gas</b>	<b>CR1&amp;2</b>	<b>CR1&amp;2</b>
	<b>Natural</b>	<b>Natural</b>	<b>Cost</b>	<b>Transport</b>	<b>Cost</b>	<b>Cost</b>
	<b>Gas</b>	<b>Gas</b>	<b>(\$/MMBTU)</b>	<b>Cost</b>	<b>(\$/MMBTU)</b>	<b>(\$/MMBTU)</b>
	<b>Cost</b>	<b>Cost</b>	<b>(\$/MMBTU)</b>	<b>Cost</b>	<b>(\$/MMBTU)</b>	<b>Cost</b>
	<b>FPC 2001</b>	<b>FPC 2002</b>	<b>FPC 2003</b>	<b>FPC 2004</b>	<b>FPC 2005</b>	<b>FPC 2006</b>
1997	2.54	3.00	2.10	0.00	1.71	1.70
1998	2.50	3.04	2.11	0.00	1.72	1.71
1999	2.65	3.00	2.10	0.00	1.77	1.73
2000	2.70	2.90	2.05	0.00	1.81	1.74
2001	2.70	2.90	2.05	0.00	1.84	1.77
2002	2.67	3.07	2.10	0.07	1.87	1.81
2003	2.90	3.13	2.10	0.00	1.94	1.84
2004	3.00	3.13	2.10	0.00	1.90	1.87
2005	3.10	3.10	2.20	0.00	2.01	1.91
2006	3.20	3.20	2.20	0.00	2.00	1.94
2007	3.20	3.20	2.20	0.00	2.10	1.90
2008	3.40	3.20	2.21	0.00	2.10	2.04
2009	3.40	3.20	2.27	1.00	2.21	2.00
2010	3.60	3.40	2.40	1.01	2.27	2.10
2011	3.60	3.60	2.40	1.02	2.22	2.20
2012	3.71	3.60	2.60	1.00	2.20	2.20
2013	3.70	3.60	2.61	1.04	2.44	2.31
2014	3.67	3.70	2.60	1.00	2.01	2.27
2015	3.60	3.61	2.70	1.00	2.07	2.40
2016	4.00	3.60	2.82	1.07	2.04	2.40
2017	4.13	3.67	2.80	1.00	2.70	2.60
2018	4.20	4.00	2.80	1.00	2.77	2.62
2019	4.22	4.14	2.94	1.10	2.64	2.60
2020	4.41	4.20	3.11	1.11	2.91	2.70
2021	4.91	4.22	3.10	1.12	2.90	2.80
2022	4.91	4.41	3.27	1.13	3.07	2.80
2023	4.71	4.60	3.20	1.10	3.14	2.97

**TABLE 2**  
**Annual Summary for the U.S. Economy: 1995-2007 (TRENDLONG1195)**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Composition of Real GDP (Annual percent change)</b>													
Gross Domestic Product	2.9	2.4	2.4	2.4	2.9	2.2	1.7	1.6	1.9	2.3	2.3	2.2	2.1
Fina. Sales	2.4	2.9	2.2	2.4	2.9	2.1	1.8	1.6	1.9	2.2	2.3	2.2	2.1
Gross National Product	2.0	2.4	2.2	2.3	2.8	2.1	1.6	1.6	1.9	2.2	2.3	2.1	2.1
Total Consumption	2.3	2.5	2.7	2.9	2.9	2.9	1.6	1.5	1.6	1.9	2.0	2.0	2.1
Nonresidential Fixed Investment	1.5	0.9	4.8	4.9	3.8	3.3	3.2	2.8	3.8	5.2	5.4	4.4	3.9
Producers' Durable Equipment	2.4	6.2	5.8	6.5	4.8	3.3	3.3	3.8	4.7	5.9	5.5	4.9	4.5
Office and Computing Equipment	29.8	39.3	31.5	17.3	14.1	13.9	14.1	13.6	15.1	16.7	16.9	16.0	15.9
Auto	-7.2	-1.9	-2.6	1.5	0.5	2.5	1.4	2.4	3.3	4.2	3.7	1.0	1.1
Car	0.5	3.9	3.8	4.8	2.2	1.2	1.3	2.1	2.9	3.7	3.7	3.1	2.1
Private Nonresidential Structures	7.3	3.2	1.9	6.5	6.5	3.4	2.7	-0.3	1.2	4.1	4.4	3.3	2.1
Buildings and Other	0.2	1.8	0.4	-0.1	-0.5	4.2	4.1	-0.3	1.4	5.2	5.6	3.2	2.5
Residential Fixed Investment	-2.3	0.4	0.9	-0.4	0.4	1.9	0.5	-0.4	0.5	1.1	1.2	1.6	1.5
Exports	6.9	6.7	6.7	6.5	6.5	6.3	7.4	7.1	6.9	7.9	8.2	6.6	6.4
Imports	6.9	6.9	7.2	7.1	6.7	6.3	6.6	6.4	6.9	7.1	6.6	6.3	6.1
Federal Government	-3.6	-1.1	-2.2	-2.2	-2.5	-2.5	-2.1	-1.7	-1.9	-0.8	-0.4	-0.4	-0.4
State and Local Governments	2.4	1.9	2.5	2.5	2.4	2.5	2.2	2.1	2.1	2.4	2.4	2.2	2.1
<b>Billions of Dollars</b>													
Real GDP (1992 chained \$)	6742.9	6994.5	7099.9	7099.9	7194.2	7294.9	7392.1	7708.9	7895.2	8114.9	8391.4	8499.5	8699.9
Gross Domestic Product	7399.9	7671.8	7691.2	7692.2	7891.9	8077.9	8492.1	8914.4	10095.7	10999.9	11999.9	12167.9	12392.9
<b>Prices and Wages (Annual percent change)</b>													
GDP Price Index (Chain-1982)	2.5	2.1	2.4	2.3	2.4	2.9	2.9	2.9	2.9	3.0	3.2	3.2	3.3
GDP Implicit Price Deflator (Chain-1982)	2.5	2.9	2.9	2.5	2.4	2.9	2.9	2.9	2.9	3.0	3.1	3.2	3.3
CPI--All Urban Consumers	2.8	2.9	2.9	2.9	2.9	3.0	3.2	3.4	3.5	3.6	3.7	3.8	3.8
Producer Price Index--Finished Goods	1.9	2.5	1.5	1.3	1.7	1.9	2.2	2.4	2.5	2.5	2.7	2.8	2.7
Employment Cost Index - Total Comp.	2.9	2.8	2.4	2.5	2.6	2.9	2.9	2.8	2.7	2.8	2.9	2.9	2.9
Output per Hour	0.9	0.9	0.9	1.2	1.4	1.4	1.9	1.1	1.2	1.2	1.2	1.1	1.2
<b>Production and Other Key Measures</b>													
Industrial Production (1982)	3.3	2.1	2.9	2.7	2.7	4.9	4.9	4.4	4.9	5.8	6.3	6.5	6.7
Nonfarm Inven. Accumulation													
(Billion 1992 chained \$)	37.2	35.1	37.5	38.9	39.9	39.9	39.9	39.9	39.9	37.9	39.5	39.3	39.1
Consumer Confidence Index	9.999	9.999	9.997	9.999	9.994	9.994	9.999	9.999	9.999	9.999	9.999	9.991	9.999
Housing Starts (All units)	1,299	1,299	1,299	1,299	1,299	1,297	1,299	1,299	1,299	1,419	1,439	1,439	1,453
Total Light Vehicle Sales (All units)	14.9	15.1	14.5	15.2	15.4	15.9	15.7	15.7	15.9	16.2	16.5	16.8	17.0
Unit Car Sales (All units)	8.7	8.8	8.5	8.3	8.9	8.9	8.1	8.9	8.9	9.1	9.2	9.2	9.2
Unemployment Rate (%)	5.9	5.4	5.5	5.5	5.7	5.9	5.9	6.9	6.1	6.9	6.9	6.8	6.8
Nonfarm Employment													
(Stat. Survey, % ch)	2.7	2.9	1.9	1.4	1.8	1.4	1.2	0.9	0.9	1.2	1.3	1.2	1.1
Federal Budget Surplus													
(Unifed, FY, bil. \$)	-129.9	-127.9	-124.4	-129.2	-124.5	-119.9	-111.2	-102.2	-129.7	-125.3	-121.3	-125.8	-139.9
<b>Foreign Trade</b>													
Current Account Balance (Billion \$)	-149.2	-159.9	-201.9	-214.1	-219.9	-237.7	-291.4	-309.9	-309.9	-304.3	-212.8	-222.4	-231.1
Merch. Trade Balance (surpl., bil. \$)	-129.7	-129.9	-159.9	-169.9	-174.5	-199.9	-219.9	-219.9	-229.9	-241.4	-262.1	-262.4	-269.9
Foreign Crude Oil (per barrel)	17.19	20.29	19.29	19.29	19.99	19.99	19.99	20.91	21.97	22.42	24.97	24.92	26.37
U.S. \$ Exchange Rate - G.D.P. (L. ch)	-0.7	4.9	0.9	-0.9	-0.9	-0.7	-0.9	-0.7	-0.9	-0.9	-0.9	-0.9	-0.9
Foreign Consumption (% ch)	1.7	2.9	2.7	2.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Foreign Investment (% ch)	0.9	0.9	0.2	0.9	0.9	0.4	0.2	0.2	0.2	0.2	0.1	0.9	0.7
<b>Financial Markets</b>													
Money Supply (M2, billion \$)	2949.9	2999.9	2999.9	3199.9	3299.9	3299.9	3799.9	3999.9	3999.9	4299.9	4299.9	4199.9	4499.9
Percent Change vs Year Ago (Q4/Q4)	3.9	3.9	4.9	4.7	4.9	4.9	5.9	4.9	4.9	5.9	5.1	5.1	5.2
AA Corp Utility Rate (%)	7.79	7.79	7.79	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99
Thirty-Year Treasury Bond Yield (%)	6.99	6.79	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99
Treasury Bill Rate (%)	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49
Federal Funds Rate (%)	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49
F-100 Rate (%)	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99
S&P Index of 500 Common Stocks	949	999	799	711	749	797	894	999	999	1099	1099	1129	1199
<b>Incomes</b>													
Personal Income (% ch)	6.3	5.9	5.1	4.9	4.9	4.9	4.7	4.9	5.1	5.4	5.9	5.9	5.9
Real Disposable Income (% ch)	2.5	2.9	2.9	2.4	1.9	2.9	1.9	1.9	1.9	2.9	2.1	2.1	2.0
Saving Rate (%)	4.7	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Profits After Tax													
(% ch from yr. ago)	12.2	4.7	-0.9	6.5	4.4	5.5	3.9	3.9	4.7	6.2	5.9	4.7	5.1
Post-Tax Corp Cash Flow													
Billions of Dollars	692.1	699.9	619.2	691.2	1014.2	1099.7	1111.9	1199.4	1299.9	1299.4	1299.4	1299.9	1400.9
Percent Ch. vs Year Ago	6.9	7.9	2.7	6.9	5.2	5.1	4.9	4.9	4.2	4.9	5.9	4.9	5.1

Note: Unless otherwise stated, all real data are in 1992 chained dollars.

**Exhibit No. \_\_\_ (LCC-7)**

**Savings to FPC's Customers Due to the OCL Contract Buyout**

**Savings to FPC Customers  
Due to OCL Contract Buyout  
Based on Fuel Forecast FCP 0702  
(2007)**

Year	<u>Contract Case</u>			<u>Replacement Case</u>				<u>Customer Savings</u>
	<u>Capacity</u>	<u>Energy</u>	<u>Total</u>	<u>Capacity</u>	<u>Energy</u>	<u>Buyout Cost</u>	<u>Total</u>	
	(1)	(2)	(1)+(2)	(4)	(5)	(6)	(4)+(5)+(6)	(3)-(7)
1997	0	0	0	0	0	9,881	9,881	(9,881)
1998	0	0	0	0	0	9,881	9,881	(9,881)
1999	0	0	0	0	0	9,881	9,881	(9,881)
2000	0	0	0	0	0	9,881	9,881	(9,881)
2001	0	0	0	0	0	9,881	9,881	(9,881)
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	38,322	21,886	60,208	6,889	16,036	0	21,886	38,123
2015	38,177	22,238	60,415	6,878	16,384	0	22,140	38,275
2016	40,116	22,872	62,988	6,907	16,988	0	22,413	40,575
2017	42,171	23,401	65,572	6,988	16,751	0	22,888	42,687
2018	44,312	24,012	68,324	6,989	16,989	0	22,889	45,365
2019	46,579	24,845	71,224	6,988	17,282	0	23,239	47,985
2020	48,953	25,389	74,221	6,989	17,989	0	23,487	50,824
2021	51,453	25,978	77,439	6,918	17,787	0	23,785	53,645
2022	54,070	26,677	80,748	6,985	18,031	0	24,088	56,652
2023	56,638	27,403	84,239	6,984	18,288	0	24,382	59,847
<b>Total 2014-2023 =</b>			<b>788,279</b>	<b>68,889</b>	<b>171,489</b>	<b>0</b>	<b>231,888</b>	<b>472,179</b>
<b>Net present value at 1/1/97 =</b>			<b>112,914</b>	<b>9,889</b>	<b>28,888</b>	<b>48,411</b>	<b>78,287</b>	<b>34,647</b>