

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**IN RE: Petition for approval of)
early termination amendment to)
negotiated qualifying facility)
contract with Orlando CoGen)
Limited, Ltd. by Florida Power)
Corporation.)**

**DOCKET NO. 961104-EQ
FILED: DECEMBER 1, 1997**

BRIEF OF ORLANDO COGEN LIMITED, L.P.

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FPC RECORDS REPORTING

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IN RE: Petition for approval of)
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Limited, Ltd. by Florida Power)
Corporation)

DOCKET NO. 961184-EQ
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**ORLANDO COGEN LIMITED, L.P.'S BRIEF ON THE MERITS
IN SUPPORT OF APPROVAL OF CONTRACT MODIFICATION**

Intervenor Orlando CoGen Limited, L.P. ("OCL") provides this brief on the merits, including OCL's statement of issues and positions, in support of approval of the contract modification described in Florida Power Corporation's ("FPC") petition pursuant to Commission Rule 25-22.056.

ARGUMENT

- I. **The OCL Contract Modification Satisfies the Commission's Required Standards and Rules Governing Modifications to Contracts for the Purchase of Firm Capacity and Energy and Must Therefore Be Approved.**

This matter addresses a modification of an approved qualifying facility (QF) contract for the purchase by FPC of firm capacity and energy from OCL. Essentially, the contract modification consists of termination of the last, most expensive ten years of the contract in exchange for five years of early termination payments.¹

¹The termination payments depend on OCL's performance, under the terms of the modification. See Early Termination Amendment,

Thus, this matter presents a choice among two alternatives. FPC can continue to purchase capacity and energy under the OCL contract or pay the early termination fee, and obtain capacity and energy from another source during the last ten years of the contract.

- a. **The Commission's Rules Require that QF Contract Modifications be Evaluated Against the Utility's Avoided Cost and Avoided Cost is Defined by the Commission's Rules.**

Commission Rule 25-17.0836 addresses modifications to approved QF contracts. Rule 25-17.0836(6) provides:

"The modifications and concessions of the utility and developer shall be evaluated against both the existing contract and the current value of the purchasing utility's avoided cost."

The "purchasing utility's avoided cost" is defined under Commission Rule 25-17.0832(3). In approving the original contract between FPC and OCL, the Commission set out the standards for approval required by Rule 25-17.0832(3).² The Commission stated that Rule 25-17.0832(2) requires "that in reviewing a negotiated

Attachment A to FPC's Petition.

²In re: Petition for Approval of Contracts for the Purchase of Firm Capacity and Energy by Florida Power Corporation, Docket No. 910401-EQ, Order No. 24734 91 FPSC 7:296, 303 (July 1, 1991). The Commission renumbered Rule 25-17.0832 in 1997. Thus, the citation in Order 24734 is to Rule 25-17.0832(2) which is current Rule 25-17.0832(3). The substance of the standards is unchanged. See, In re Proposed Amendments to Rule 25-17.0832, etc., Docket No. 931186-EQ, Order No. PSC-96-1548-POF-EQ, 96 FPSC 12:339 (December 19, 1996).

firm capacity and energy contract for purposes of cost recovery, the Commission shall consider the following factors" relevant here:

First, "Whether the present worth of the utility's payments for firm capacity and energy to the QF over the life of the contract is projected to be no greater than the present worth of the year-by-year deferral³ of the construction and operation of a generating facility by the purchasing utility over the life of the contract, or the present worth of other capacity and energy costs that the contract is designed to avoid;" and

Second, "Whether, to the extent that annual firm capacity and energy payments made to the QF in any year exceed that year's annual value of deferring the construction and operation of a generating facility, or other capacity and energy related costs, the contract contains provisions to ensure repayment of the amounts that exceed that year's value of deferring the capacity if the QF fails to deliver firm capacity and energy under the terms of the contract."

The Commission concluded that the OCL contract satisfied the cost-effectiveness requirement of Rule 25-27.0832(2), since the NPV of FPC's contract payments "will be no greater than the present worth of the value of a year-by-year deferral of FPC's avoided costs."⁴

³Thus, Rule 25-17.0832(3) sets out the Commission's choice of the value of deferral method in calculating the utility's avoided cost for the purposes of calculating capacity payments under QF contracts. The mandate that utility's pay QFs full avoided cost is imposed by the federal Public Utility Regulatory Policies Act ("PURPA"). See In re: Amendment of Rules 25-17.80 through 25-17.89 in relation to cogeneration, Docket No. 820406-EU, Order No. 12634, 83 FPSC 10:150, 168 (September 2, 1983).

⁴91 FPSC 7:296, 305.

The FPC avoided unit used to set the payments under the OCL contract was a coal-fired unit.⁵ Page 18 of the Order approving the OCL contract compares the contract's annual costs with FPC's avoided costs.⁶ This comparison shows, among other things, a steadily escalating stream of capacity payments to OCL and reflects that the OCL payments are nearly identical to FPC's then annual value of deferral. The contract capacity payments escalate steadily until, in the final year of the contract, a payment of more than \$51 million is due to OCL. During the last ten years of the contract term, the years proposed to be terminated here, the annual capacity payments escalate from about \$31 million to more than \$51 million. Page 18 of the Order also shows that the OCL payments never exceed FPC's annual "value of deferral," the second applicable standard. Thus, the OCL contract satisfied the Commission's standard for cost-effectiveness.⁷

As mandated by Commission Rules 25-17.0836(6) and 25-17.0832, during the hearing on the proposed modification, FPC presented a comparison of the projected cost under the original OCL contract and the projected cost under the early termination modification. Hearing Ex. 3 at LGS-7. FPC's analysis compared the cost of the capacity and energy provided by the OCL contract with the cost of

⁵Id. at 91 FPSC 7:296, 298.

⁶Id. at 91 FPSC 7:296, 313.

⁷Id. at 91 FPSC 7:296, 304-05.

capacity and energy to be provided by a gas fired, combined cycle unit during the years terminated by the modification. Ex. 1 at LGS-6. Thus, as required by Rule 25-17.0836(6), FPC evaluated the modification against "both the existing contract and the current value of the purchasing utility's avoided cost." FPC's analysis also demonstrates that the OCL modification satisfies the Commission's standards for approval of QF contracts.

FPC's comparison shows that the proposed modification is expected to provide consistent and substantial savings in each year. The savings expected by FPC in each year are:

<u>Year</u>	<u>Customer Savings</u>
2014	\$36,123,000
2015	38,275,000
2016	40,575,000
2017	42,887,000
2018	45,365,000
2019	47,985,000
2020	50,824,000
2021	53,645,000
2022	56,652,000
2023	59,847,000
<u>Total Customer Savings:</u>	\$472,179,000

Ex. 1 at LGS-7.

The contract modification provides these savings in future years. Therefore, to perform a valid comparison of costs incurred in earlier years with savings realized later, it is necessary to reduce the savings to a net present value ("NPV") basis and compare the NPV of the savings of the modification to the NPV of the costs under the OCL contract. If this comparison produces a positive

NPV, after applying the appropriate discount rate, then the modification provides a net benefit and should be approved. Tr. Vol. 3, p. 356.⁹ Rule 25-17.0832(6)(a) defines the discount rate to be used when determining the purchasing utility's avoided cost. Among other things, Rule 25-17.0832(6)(a) specifically defines the annual discount rate to be used in calculating avoided cost as "the utility's after tax cost of capital."

FPC calculated the NPV of the savings using FPC's after tax cost of capital as the discount rate as required by Rules 25-17.0836(6) and 25-17.0832. FPC's analysis shows an expected positive net present value benefit to customers of \$34,647,000. Ex. 1 at LGS-7. Thus, FPC's analysis demonstrates that the OCL contract modification is beneficial to customers when evaluated against both the existing OCL contract and FPC's avoided cost. Therefore, the modification must be approved because it satisfies the standards set by the Commission's Rules.

It is crucial to any comparison of revenue or payment streams over time to use an appropriate discount rate in calculating NPV. The Commission's Rule 25-17.0832(6) specifies the proper discount rate to be the utility's after tax cost of capital. The importance of using the discount rate with which the utility's avoided cost is

⁹Throughout OCL's Brief, citations to the hearing transcript are in the following form Tr. Vol. ____, p. ____,; Tr. meaning "Hearing Transcript," Vol meaning "volume" and p. meaning "page number."

determined pursuant to Commission rule is illustrated by the Commission's consideration and approval of the original OCL contract. As was described above, the capacity payments to OCL are based on a coal unit and escalate over the life of the contract. This general shape of the OCL contract payment stream is created by the Commission's approval of the value of deferral method for calculating payments for firm capacity and energy contracts.¹⁰ The value of deferral method is not the exclusive method for calculating payments under firm capacity and energy contracts. As is apparent from the second express standard for approval of negotiated capacity contract payments set out above, any other contract payment structure is acceptable, so long as the NPV of the total contract payments does not exceed the NPV of the total payments calculated using the value of deferral method. Rule 25-17.0832(3)(c).

For example, FPC provided a calculation of the annual revenue requirements for the 1991 coal-fired generating unit used to set the OCL payments. Composite Ex. 7 at LGS-5 entitled "Comparison of OCL Contract Buyout to Coal-fired Generation." The shape of the revenue requirements stream shown by FPC for this coal-fired unit

⁹In re: Petition for Approval of Contracts for the Purchase of Firm Capacity and Energy by Florida Power Corporation, Docket No. 910401-EQ, Order No. 24734 91 FPSC 7:296,, 313 (July 1, 1991).

¹⁰See In re: Amendment of Rules 25-17.80 through 25-17.89 in relation to cogeneration, Docket No. 820406-EU, Order No. 12634, 83 FPSC 10:150, 168 (September 2, 1983).

is the opposite of the payment stream shown calculated by the value of deferral method in that the revenue requirement stream declines over the life of the unit while the value of deferral stream escalates. However, the NPV of the two revenue streams are precisely the same.

Moreover, the NPV of the revenue requirements stream shown by FPC for the coal-fired unit is virtually identical to the NPV of the OCL contract capacity payments approved by the Commission.¹¹ This equivalence of the NPV of the value of deferral and revenue requirements is the result required by the Commission's value of deferral pricing methodology -- the value of deferral payment stream must be equivalent to the revenue requirements stream on an NPV basis over the life of the contract. As the Commission recognized in adopting the value of deferral method:

"the value of deferral method will, over the thirty-year depreciation life of the avoided unit, pay a QF the same amount it would have received if its capacity payments had been based on deferred revenue requirements. That is, at the end of thirty years, a QF would have received the same total amount on a present value basis, under either methodology; the difference between the two methods lies in the level of payment in any given year in that thirty-year period."¹²

However, the calculation of NPVs will result in an equivalent NPV for both the value of deferral and revenue requirements streams

¹¹Compare Id. 91 FPSC 7:296, 313 with Composite Exhibit 7 at LGS-5.

¹²See In re: Amendment of Rules 25-17.80 through 25-17.89 in relation to cogeneration, Docket No. 820406-EU, Order No. 12634, 83 FPSC 10:150, 168 (September 2, 1983).

only if the discount rate used is the same discount rate used to produce avoided cost (i.e. the utility's after tax cost of capital). If a different discount rate is arbitrarily substituted, the calculation will erroneously yield different NPVs for the two streams, but the calculation is meaningless (except to illustrate the principle that use of the avoided cost discount rate is critical to a valid comparison). Revenue streams used to determine avoided cost cannot be meaningfully compared without consistently applying the avoided cost discount rate -- the utility's after tax cost of capital -- as mandated by Rule 25-17.0832(6)(a).

Rule 25-17.0832 provides numerous examples of the requirement for the use of the avoided cost discount rate in calculating the NPV of the utility's avoided cost. As already stated, the value of deferral method is not the only method for calculating payments under firm capacity and energy contracts that will satisfy the criteria of the Commission's Rules. In cases in which payments are structured so that a payment in a given year exceeds that year's value of deferral, the contract must provide adequate assurances of repayment, over the life of the contract, of amounts exceeding the value of deferral for that year. Payments could, therefore, be structured using the revenue requirements as the basis for the payment. However, the repayment must be calculated based on the avoided cost discount rate. Once again, if an arbitrarily different discount rate were substituted in calculating the

"repayment" then the "repayment" would not result in avoided cost being paid or, stated differently, that the excess over value of deferral would be repaid.

Rule 25-17.0832 provides additional illustrations of the principle that no valid evaluation against avoided cost can be made without the use of the avoided cost discount rate. Rule 25-17.0832(6)(b) provides for early capacity payments in advance of the in service date of the unit. The Commission's Rule provides for a consistent comparison with the utility's avoided cost and thus defines discount rate, once again, to mean the utility's after tax cost of capital. Rule 25-17.0832(6)(b). Rule 25-17.0832(6)(c) similarly permits the use of levelized and early levelized capacity payments and, consistently with every other calculation of the NPV of avoided cost, defines the discount rate to mean the utility's after tax cost of capital.

Moreover, use of the avoided cost discount rate is crucial in considering any least-cost generating alternative. For example, in considering the original OCL contract, the Commission was required to determine the type of generating facility to be used as FPC's avoided unit for the purpose of setting capacity and energy payments. Importantly for issues involved now, the Commission noted that the total costs of a coal unit were higher than the

total costs of a gas fired combustion turbine until the year 2008.¹³ However, the Commission approved use of the coal unit because it was expected to be cheaper over the entire life of these units. The calculation would have come out differently if the Commission had used a discount rate other than the avoided cost discount rate, but such a comparison would be meaningless and would not reflect the utility's avoided cost.

The Commission's Rules ensure a valid comparison with the utility's avoided cost by requiring the use of the utility's after tax cost of capital as the discount rate for evaluating generating alternatives, such as the OCL contract. Generating alternatives are not investment opportunities for utility customers. Utilities in Florida operate under a duty to serve and thus must plan for, finance, construct and operate such generating plant as is necessary to provide service.¹⁴ Thus, a utility's retail customers are inevitably confronted, economically, with the costs of the utility's generation regardless of whether the power purchased by the customer was generated by the utility or purchased by the utility from a QF. For the purpose of evaluating generating alternatives, the utility's cost of capital, therefore, is the customer's cost of capital. Utilities are required by Commission

¹³In re: Petition for Approval of Contracts for Purchase of Firm Capacity and Energy by Florida Power Corp., Docket No. 910401-EQ, Order No. 24734, 91 FPSC 7:296,298 (July 1, 1997).

¹⁴Fla. Stat. § 366.02 (1997).

Rule 25-17.082 to purchase power from QFs at the utility's avoided cost. The obligation to purchase from QF's at full avoided cost was intended to preserve the utility's relationship with its customers.

As the Commission observed:

"Part of the implementation scheme set out by FERC¹⁵ for developing cogeneration is to pay cogenerators "avoided cost" for their power. Those costs are defined as the cost which would be incurred had the facilities been constructed and operated by utilities. The concept is designed to keep the ratepayers 'neutral' since they would pay cogenerators what they would otherwise have paid the utilities."¹⁶

This case presents a classic, routine, standard analysis. The question presented here is whether it is cheaper for FPC to obtain capacity and energy under the OCL contract or pay the costs necessary to obtain capacity and energy from another source during the last ten years of the contract. This case presents the same analysis used by the Commission every time it evaluates "least cost generating alternatives" in any context. The analysis is the same every time the Commission evaluates "least cost generating alternatives" under the Power Plant Siting Act in determination of need proceedings.¹⁷ The analysis is the same in setting

¹⁵See Public Utilities Regulatory Policies Act, 16 U.S.C. § 824; Rule 25-17.082. Fla. Admin. Code.

¹⁶In re: Petition of Florida Power & Light Company for approval of cogeneration agreement with AES Cedar Bay, Inc., Docket No. 881570-EQ, Order No. 20954 89 FPSC 4:60, 62 (April 7, 1989).

¹⁷Fla. Stat. § 403.519 (1997) (the Commission shall consider "whether the proposed plant is the most cost-effective alternative available.~").

conservation goals.¹⁸ The analysis is the same in setting avoided cost for standard offer contracts or negotiated QF contracts.¹⁹ The analysis is the same in setting early capacity payments under negotiated QF contracts.²⁰ There is simply no basis to use a different discount rate when considering the OCL modification as an alternative to the last ten years of the original contract and to do so would directly contradict the mandate to compare the modification to "the utility's avoided cost." Rule 25-17.0836(6), Fla. Admin. Code.

II. The Commission should reject the Invitation to Ignore the Commission's Rules and Apply a Discount Rate Different than FPC's After Tax Cost of Capital.

Mr. Larkin and Mr. Stallcup invite the Commission to violate its own Rule by ignoring FPC's avoided cost in evaluating the contract modification. The analyses performed by Mr. Stallcup and Mr. Larkin are each radically inconsistent with the determination of the utility's avoided cost as mandated by the Commission's Rules. In Mr. Stallcup's words, his analysis "views the proposed buy out as a potential investment opportunity being offered to FPC ratepayers and is evaluated on the basis of whether or not the investment will provide a reasonable return." Tr. Vol. 3, p. 347.

¹⁸Rule 25-17.0021(5)(n), Fla. Admin. Code.

¹⁹Rule 25-17.0832, Fla. Admin. Code..

²⁰Rule 25-17.0832(6)(b), Fla. Admin. Code.

Mr. Larkin similarly argues that "the discount rate should reflect the risk being taken by the ratepayer and not the cost of capital that the Company receives based on its monopoly enterprise." Tr. Vol. 2, p. 233. The concept of a generating alternative as an investment opportunity to investors is mentioned nowhere in the Commission's rules. To the contrary, the Commission's Rule 25-17.0836(6) requires the Commission to evaluate the modification against "both the existing contract and the current value of the *purchasing utility's avoided cost.*" The discount rate required by Rule is the utility's after tax cost of capital, on which that avoided cost is necessarily based.

The approaches of Mr. Stallcup and Mr. Larkin violate the Commission's Rules. Neither Mr. Larkin nor Mr. Stallcup made any attempt whatsoever to ensure that their respective analyses were consistent with the Commission's Rules. See, e.g. Tr. Vol. 2, p. 302. Mr. Stallcup was aware that his approach conflicted with that used by the Commission in approving the initial OCL contract. Tr. Vol. III, p. 405. Mr. Larkin conceded that he knows next to nothing about the Commission's Rules governing QF contracts and modifications. Tr. Vol. II, p. 302. Mr. Stallcup was aware of no other proceeding in which the Commission had attempted to employ a "risk adjusted discount rate" methodology in any context. Tr. Vol. III, p. 389. Mr. Larkin likewise could cite no proceeding in which the Commission used a hypothetical credit card rate, as he

proposed, to set a discount rate for utility full avoided cost. Tr. Vol. 2, p. 259.

Both Mr. Stallcup and Mr. Larkin assert that a discount rate other than the utility's after tax cost of capital should be used here because the payments under the modification are recovered directly from customers through the fuel adjustment clause. Tr. Vol. 2, p. 259; Vol. 3, p. 352 - p. 353. This is no distinction at all. All approved QF payments are recovered directly from customers through the adjustment clauses.²¹ As the Commission stated, approved QF payments may always be "recovered through a utility's Fuel and Purchased Power Cost Recovery Clause without further ado."²²

Most fundamentally, though, the Commission's Rules dictate the discount rate to be used when establishing full avoided cost and when comparing payments to that avoided cost. The Commission's Rules require use of Florida Power Corporation's after tax cost of capital as the discount rate. Rules 25-17.0836(6) and 25-17.0832(6)(c), Fla. Admin. Code.

The Commission's Rules cannot be ignored. Section 120.68(7)(e)(3), providing for judicial review of agency decisions, requires that agency action cannot be "inconsistent with agency

²¹Rule 25-17.0832(8)(a), Fla. Admin. Code.

²²See In re: Amendment of Rules 25-17.80 through 25-17.89 in relation to cogeneration, Docket No. 820406-EU, Order No. 12634, 83 FPSC 10:150, 168 (September 2, 1983).

rule." An agency's action that is inconsistent with the agency's rules is invalid.²³ Even if the Commission were presented with a good, equitable reason to do so -- and it has not been presented with such a reason here -- the Commission is bound to abide by its Rules.²⁴ It is "well established that courts have the right to review and grant relief from administrative action which is arbitrary, capricious, unreasonable, discriminatory, or oppressive, or which constitutes an abuse of discretion."²⁵ Moreover, "agency action which yields inconsistent results based upon similar facts without reasonable explanation, is improper."²⁶ Florida Administrative Law provides that an agency should and must decline invitations to change the rules in the middle of the game.

Use of any discount rate other than the utility's after tax cost of capital means that there is no consistent standard for comparing a contract modification to the utility's avoided cost. In fact, changing the discount rate for contract modifications would mean that a contract signed on day 1 would be judged on a completely contradictory standard when a modification is proposed

²³In re: Hearings on load forecasts, etc., Docket No. 890004-EU-A, Order No. 22271 89 FPSC 12:58, 61-62 (December 7, 1989).

²⁴See, e.g., Marrero v. Dep't of Bus. & Prof. Reg., 622 So.2d 1189 (Fla. 1st DCA 1993).

²⁵Martin Memorial Hospital Assoc. v. Dep't of Health and Rehabilitative Services, 584 So.2d 39, 40 (Fla. 4th DCA 1991).

²⁶Id.

on day 2. There is no reasonable explanation for treating the OCL contract modification differently from every other generating alternative considered by the Commission. Therefore, application of any discount rate other than the utility's after tax cost of capital would constitute an arbitrary and capricious abuse of the Commission's discretion.

III. Under all Projected Economic Conditions the Modification Offers Tremendous savings that Should be Secured for the Benefit of FPC's Customers.

The criticisms of the OCL contract modification cannot withstand the simple fact of the enormity of the savings modification provided with certainty by the buy out. It is an immutable fact of pricing based on the value of deferral method that capacity payments so calculated escalate over the life of the contract. It is an immutable fact of the economics of generation that capacity payments based on a coal unit are very high. Because the OCL contract is priced based on the value of deferral methodology, the payments in the latter years of the contract -- the payments avoided by the modification -- are very much higher than the payments in the early years.²⁷ The purpose of the modification is to permit FPC's customers to avoid the high costs

²⁷See Exhibit 25, Attachment Q, Appendix C (schedule of annual capacity and energy payments under the OCL contract).

of the later years of the OCL contract through relatively small²⁸ payments now.

Based on FPC's most recent fuel forecast, the fuel forecast used by FPC in all its generation planning, witness Schuster established that FPC reasonably expects that the OCL contract modification will provide the following savings:

2014:	36,123,000
2015:	38,275,000
2016:	40,575,000
2017:	42,887,000
2018:	45,365,000
2019:	47,985,000
2020:	50,824,000
2021:	53,645,000
2022:	56,652,000
2023:	59,847,000

Total: \$472,179,000

Composite Exhibit 1 at LGS-7.

Thus, in every year, the modification is expected to provide substantial, consistent savings to customers with an ultimate savings of nearly ten times the early termination payments.

OCL demonstrates below that Mr. Stallcup failed to provide evidence sufficient to reject FPC's economic assumptions. Even the simultaneous occurrence of Mr. Stallcup's most severely pessimistic

²⁸In fact, the actual payments from customers under the modification are expected to amount to only about \$.30 per month for a typical residential FPC customer using 1000 kwh per month. Tr. Vol. 4, p. 554.

assumptions still yields enormous savings to FPC's customers in each and every year bought out under the modification:

2014:	22,987,000
2015:	24,343,000
2016:	25,876,000
2017:	27,251,000
2018:	28,720,000
2019:	30,284,000
2020:	32,031,000
2021:	33,556,000
2022:	35,224,000
2023:	36,984,000

Total Savings: \$297,257,000²⁹

Because of the enormous savings provided by the modification, the worst that Mr. Stallcup can say about the modification, even after application of his so-called "risk adjustments", is:

"Based on [my] analysis, I conclude that there is approximately a 75% chance that the proposed buy out will succeed in providing an adequate return to ratepayers and approximately a 25% chance that the proposed buy out will fail to provide an adequate return."

Tr. Vol. 3, p. 365.

Mr. Stallcup admitted even that assuming his "worst-case" conditions, the NPV of the modification showed a substantial benefit to customers, if NPV was calculated using FPC's after tax cost of capital as the discount rate. Tr. Vol. 3, p. 425-425. Under the simultaneous occurrence of all Mr. Stallcup's worst case conditions, the modification provides an annual compound return of 9.2%. Tr. Vol 3., p. 455. Thus, even assuming a simultaneous

²⁹Tr. Vol. 3, p. 423-425; Exhibits 15 at "DRI Pess Values" and Exhibit 16.

confluence of Mr. Stallcup's worst expected economic conditions, the modification provides a substantial positive return.

Likewise, while doggedly asserting that NPV should be calculated using a short-term credit card rate resulting in a negative NPV, even Mr. Larkin conceded that the modification provided an actual annual rate of return of 12.9%. Tr. Vol. 2, p. 364. What this means is that the expected benefits of the modification would provide FPC's customers a "return" of 12.9% compounded annually.

Mr. Stallcup's methodology resulted in an overall negative net present value only if his worst case scenario economic conditions are combined with his "risk adjusted discount rate." See, Ex. 15. Mr. Stallcup agreed, wholeheartedly and at considerable length, that if FPC were to sign a long-term contract to lock-in Mr. Stallcup's "worst case scenario" fuel prices, the contract modification would yield enormous positive customer benefits on an NPV basis because a risk free discount rate would then be applied to those "worst case" fuel prices. Under Mr. Stallcup's theory, signing a contract for his highest, "worst-case," pessimistic gas prices would result in total energy costs cheaper under the replacement case by an NPV of \$129,561,000. Tr. Vol. 3, p. 447 - 448 and Ex. 15. Thus, under Mr. Stallcup's methodology, the proposed modification, together with locking in the highest anticipated gas prices through a long term gas contract would

provide a total, positive NPV benefit of \$100,208,000 to FPC's customers. Id. A copy of Exhibit 15, modified to show the results of the replacement case under a gas contract for prices equal to Mr. Stallcup's worst case scenario and with results agreed to by Mr. Stallcup is attached as Attachment "A." This conclusion illustrates two important points. First, the savings under the modification are truly enormous and easily withstand all reasonable inquiry. Second, Mr. Stallcup's risk adjustments are inherently irrational and untrustworthy since his analysis leads to an NPV increase of more than \$100 million by contracting for the worst expected gas prices and thereby removing the "risk" of obtaining better, cheaper gas prices. Put another way, a methodology that encourages pursuit of the worst expected alternative makes no sense.

The suggestions of discount rates other than FPC's after tax cost of capital accomplish nothing so much as to illustrate the enormous savings offered by the contract modification. The savings provided by the OCL modification are so large that the modification easily withstands any credible economic analysis. Even were the Commission's Rules to permit use of a discount rate other than FPC's after tax cost of capital, the conclusion would be the same. The modification offers tremendous savings that should be secured for the benefit of FPC's customers.

IV. The Commission's Rules do Not Recognize Speculation Concerning Intergenerational Equity as a Basis to Reject a Cost-effective Contract Modification.

Vague criticisms of "intergenerational equity" provide no basis to reject the OCL modification. The economics of generating alternatives as recognized by the Commission make the concept of intergenerational equity irrelevant to the fundamental issue of determining the most cost-effective generating alternative.³⁰ The Commission's Rules are based on the economics of generating alternatives over the entire expected life of each alternative. Thus, to the extent that intergenerational fairness is asserted to support generating alternatives other than the most-cost effective choice over the long term, the Rules provide that such considerations are irrelevant.

This Commission has always and must analyze generation alternatives for the long term. In evaluating generating alternatives, the Commission will always be confronted by the economic reality of the long useful life -- and therefore long-term economic implications -- associated with generating assets. As the Commission has recognized, one generating alternative may very well be the least expensive for the first decade or more of its operation, but ultimately prove to be less cost-effective than another alternative over the entire expected life of the unit.

³⁰Mr. Larkin, for example, simply made up his own definition. Tr. Vol. 2, p. 262.

Therefore, a comparison that fails to consider a generating alternative's economics over its entire expected life fails to address the cost-effectiveness of the alternative. This was precisely the circumstance noted by the PSC in approving the original OCL contract. There, the Commission considered whether it was more appropriate to use a coal unit or a combustion turbine unit as FPC's avoided unit for the purpose of setting the capacity and energy prices under the contract. The Commission noted that the total costs of a coal unit were higher than the NPV total costs of a gas fired combustion turbine until the year 2008.³¹ Thus, for the first 17 years of the contract, the unit accepted by the Commission as FPC's avoided unit (and upon which the contract payments would be based) was more expensive than another generating alternative.³² However, the Commission approved use of the coal unit because it was expected to be cheaper over the entire term of the contract regardless of whether it was cheaper during the first 17 years.

The Commission's Rules governing payments to QFs likewise recognize that such decisions must be based upon the long term economic characteristics of the generating facilities and cannot be

³¹In re: Petition for Approval of Contracts for Purchase of Firm Capacity and Energy by Florida Power Corp., Docket No. 910401-EQ, Order No. 24734, 91 FPSC 7:296,298 (July 1, 1997).

³² See also Hearing Exhibit 25, attachment C (exhibit to original FPC petition for approval of QF contracts comparing the annual, cumulative NPV of coal and combustion turbine units).

based upon an evaluation of whether a unit is more or less expensive during some arbitrarily selected, discrete portion of its useful life. Under Rule 25-17.0832(2) the basic standard for the cost-effectiveness of contract capacity payments is whether such payments exceed "The cumulative present net worth of the value of a year-by-year deferral of the construction and operation of generation or part thereof by the purchasing utility over the term of the contract...."

The Commission's Rule for calculating value of deferral pricing results in capacity payments that escalate over the life of the contract.³³ Thus, payments in the later years are much higher than payments in the earlier years. The Commission did not select the value of deferral as the QF capacity payment standard because it was more or less fair for customers to pay larger or smaller capacity payments during any particular period of the contract. The Commission chose value of deferral because "the deferral method pays the QF only what it earns in any given year, the value of an annual deferral...."³⁴

Moreover, the Commission's Rule is absolutely indifferent to the portion of the contract during which relatively higher or lower payments occur. Rule 25-17.0832(3)(c) specifically permits QF

³³ See, e.g., In re Amendment of Rules 25-17.80 through 25-17.89 relating to cogeneration, Docket No. 820406-EU, Order No. 12634, 83 FPSC 10:151, 168 (October 27, 1983).

³⁴ Id.

payments exceeding the value of deferral in any particular year so long as the total value of deferral over the life of the contract is not exceeded and the QF contract provides adequate assurance of repayment of amounts in excess of the value of deferral. In other words it is irrelevant, under the Rule, that payments are relatively higher or lower than the value of deferral in any particular year so long as the total payments over the life of the contract do not exceed the cumulative NPV of the value of deferral and the contract assures repayment. Indeed, capacity payments made even in advance of the in service date of the QF are permissible, so long as the contract contains adequate provisions to ensure repayment of amounts in excess of the value of deferral in the event the QF fails to perform.³³

"Intergenerational equity" cannot be used as a basis to ignore the economics of generation. "Intergenerational equity" cannot be used to justify an arbitrary selection of a portion of a contract and an elevation of that portion to preeminent importance regardless of the economics of the entire contract or other generating alternative. The Commission should reject attempts to ignore its Rules and the economics of electricity generation based on nebulous concepts such as "intergenerational inequity."

"See, Rule 25-17.0832(6) (b), Fla. Admin. Code., See also, In Re: Florida Power & Light Company's Petition for Approval of Consent to Florida Crushed Stone Company's Supplemental Financing Agreement, Docket No. 861461-EI, Order No. 17355 at p. 2 (April 1, 1987).

V. No Credible Evidence was Presented to Support Rejection of FPC's Fuel Price Forecast.

FPC's analysis was based on its standard fuel price forecast used in all its generation planning. Composite Ex. 1 at LGS-3. The methodology used in preparing FPSC's forecast was unchallenged. Likewise, the economic assumptions underlying FPC's forecast were unattacked by any witness.

Still, Mr. Stallcup asserted that FPC's gas price forecast was too low and offered his own set of fuel forecasts, even though he admitted he has no expertise in gas price forecasting (Tr. Vol. 3, p. 398), was uncertain of the economic assumptions underlying his forecasts he sponsored (Tr. Vol. 3, p. 391) and admitted that the forecasts he sponsored did not take into account factors unique to Florida or FPC. Tr. Vol. 3, p. 397-398.

The only action Mr. Stallcup performed personally to attempt to verify the forecast he sponsored was to compare it to another set of forecasts he created and mischaracterized as a "consensus forecast" of all Florida utility ten year site plan forecasts. Tr. Vol. 3, p. 390. During the hearing, Mr. Stallcup admitted that this so-called "consensus" forecast was not the composite of utility ten year site plan forecasts, since none of the utilities' ten year site plan forecasts projected fuel prices through the term of the OCL contract. Tr. Vol. 3, p. 391. Instead, Mr. Stallcup admitted that he actually created the supposed "consensus" forecast by carrying the utilities' forecasts forward at whatever escalation

rate existed during the last year of each individual utility's forecast. Id.

Mr. Stallcup admitted that none of the utilities agreed with his "forecasting" methodology. Tr. Vol. 3, p. 391-392.

Moreover, because of his conceded lack of forecasting expertise, Mr. Stallcup was unaware of this Commission's stated skepticism with forecasts, such as Mr. Stallcup's, that predict an ever-widening divergence between the price of coal and the price of natural gas. Tr. Vol. 3, p. 411 - 413.³⁶ A forecast that predicts an ever-widening divergence of the price of gas above the price of coal creates an inherent bias in favor of coal generation. For example, in considering a petition by Tampa Electric Company for a determination of need for a generating facility, the Commission observed:

"The type of generating unit chosen is not necessarily driven by fuel cost per se; rather, it is the difference in cost among competing fuels. TECO's fuel forecast projects a widening differential between coal and natural gas or oil, when in fact for many years the cost differential between the cost of coal and the cost of natural gas has remained relatively constant."³⁷

³⁶The divergence between the price of coal and gas predicted by Mr. Stallcup is shown on Ex. 1 at LGS-2 which shows Mr. Stallcup's fuel price forecasts ("Trendlong," "Pessilong," and "Optilong" forecasts).

³⁷In re: Petition for Determination of Need for a Proposed Electrical Power Plant and Related Facilities, Docket No. 910883-EI, Order No. PSC-92-0002-FOF-EI 92 FPSC 3:19, 24 (March 2, 1992).

Similarly, the Commission cited an unsubstantiated prediction of a divergence between the price of coal and the price of gas as a significant factor in rejecting a petition for determination of need to build a coal-fired generating facility. The Commission stated, "We have been concerned for some time now with fuel price forecasts that project increasingly divergent prices between the prices of coal and natural gas or oil. Actual price comparisons do not support these forecasts."³⁰ The Commission concluded "No witness offered a convincing explanation as to why there will be a major divergence between coal and natural gas when this has not occurred in the past."³¹ Thus, the Commission determined that the evidence did not support the cost-effectiveness of a coal-fired unit.

Mr. Stallcup's forecasts, and especially his pessimistic forecast predict an ever-widening divergence between coal and gas prices. Previously the Commission found this trend to be unsupported and contrary to historic trends. Mr. Stallcup's pessimistic forecast predicts that the differential between gas and coal prices will increase 9.4 times over the life of the OCL contract. Indeed, Mr. Stallcup's pessimistic gas forecast is so high that is it "off the chart" of his "consensus forecast." Tr.

³⁰In re: Joint Petition to determine need for electric power plant, Docket No. 920520-EQ, Order No. PSC-92-1355-FOF-EQ 92 FPSC 11:363, 373 (November 23, 1992).

³¹Id. 92 FPSC 11:363 at 376.

Vol 3, p. 394-395. Mr. Stallcup offered no explanation for his historically unsupported prediction of a major, sustained divergence between coal and natural gas prices. Indeed, Mr. Stallcup was unaware that such a divergence was of any concern at all. Tr. Vol. 3, p. 411-413.

Mr. Stallcup was also unaware that recent experience in Florida indicates that gas prices are expected to fall on a long term basis. Tr. Vol. 3, p. 402.⁴⁰ Mr. Stallcup was not aware that in the recent City of Tallahassee "determination of need" proceeding, the Commission approved estimates of future gas prices "significantly lower than most external forecasts" and which were based upon long term gas price contract bids. *Id.* Moreover, the City of Tallahassee opted not to accept even these bids because it expected gas prices to fall even further. Tr. Vol. 3, p. 403.

Mr. Larkin's views are likewise no basis to reject FPC's fuel price forecast. Unencumbered by even a rudimentary understanding of the Commission's Rules and Orders governing the evaluation of generating alternatives (Tr. Vol. 2, p. 231), Mr. Larkin asserted that since no person can precisely predict the future, FPC's forecasts should be rejected. Tr. Vol. 2, p. 231. Mr. Larkin ignores the economics of electric generating alternatives. The economics of generating alternatives necessitate planning for the

⁴⁰In re: Petition to Determine Need, Docket No. 961512-EM. See Order No. PSC-97-0659-FOF-EM 97 FPSC 6:115, 127-129 (June 9, 1997).

long term and, therefore, forecasting of long-term economic conditions. That forecasts are imprecise does not mean that decisions should be made without the use of forecasts. The only alternative to long term forecasting is to take actions which necessarily have long term economic implications, without considering long term economic implications -- or accepting Mr. Larkin's advice as a matter of faith. Put another way, whatever decision the Commission makes, there will be long-term economic impacts. If the Commission rejects the modification, it will choose to impose on FPC's customers the extraordinary burden of the required payments during the last ten years. The only way to assess the impact of such a decision is through forecasted data.

Mr. Larkin's incorrect view that long term decisions should not be made because long term economic projections are imprecise also violates the Commission's Rules and Orders -- not surprising since Mr. Larkin decided that the Commission's Rules and Orders are irrelevant without the benefit of actually reading them. Tr. Vol. 2, p. 302. For example, in its order adopting the value of deferral methodology, the Commission acknowledged that the obligations imposed by PURPA could not be satisfied without long-term economic analyses based on forecasted data. The Commission there quoted FERC's own assessment of the burdens imposed by PURPA: "[FERC] recognizes that the translation of the principle of avoided capacity costs from theory into practice is an extremely difficult

exercise, and is one which, by definition, is based on estimation and forecasting of future occurrences."⁴¹

Indeed, the Commission's Rule providing the standards for approval of QF contracts requires the Commission to consider "Whether the cumulative present worth of firm capacity and energy payments made to the qualifying facility are projected to be no greater than" the value of deferral.⁴² Similarly, the Commission explicitly mandated that, in the case of contracts in which some payments exceed the value of deferral in a particular year, "provisions to ensure repayment may be based on forecasted data."⁴³ The Commission's Rules clearly and expressly recognize the obvious -- long-term economic decisions can only be made based on long-term economic projections. Mr. Larkin's assertion that the imprecision of our ability to predict the future is a basis to reject the OCL modification is simply nonsense.

There is no credible evidence in the record to support a rejection of FPC's fuel price forecasts.

VI. Mr. Larkin's Speculation About Potential Competition Does Not Create Discretion in the Commission to Ignore its Rules and its Statutory Mandate to Regulate Electric Utilities.

⁴¹See, e.g., In re Amendment of Rules 25-17.80 through 25-17.89 relating to cogeneration, Docket No. 820406-EU, Order No. 12634, 83 FPSC 10:151, 153 (October 27, 1983).

⁴²Rule 25-17.0832(3)(b), Fla. Admin. Code.

⁴³Rule 25-17.0832(3)(c), Fla. Admin. Code.

Undaunted by inconsistency or even irony, Mr. Larkin purports to be able to predict that coming competition will cure all ills and render the OCL modification unnecessary. See e.g., Tr. Vol. 2, p. 248; Vol. 2, p. 251; Vol. 2, p. 252. Mr. Larkin pointed to no legislation supporting his vision. He cannot predict the form that competition might take in even the most vague of detail. Tr. Vol.3, p. 274. He has performed no study of competition in Florida. Tr. Vol. 3, p. 274-75. He has no idea what effect competition might have on the OCL contract or on the obligation of FPC's customers to pay for it. Tr. Vol. 2, p. 253 - 256. But he nevertheless urges the Commission to do nothing -- to choose to burden FPC's customers with the enormous costs avoided by the modification -- because Mr. Larkin, citing no support for his views, says that competition will make everything right."

This Commission does not regulate based on rumor and whim. This Commission's discretion is bound by its duty to regulate electric utilities based on the mandate imposed on the Commission by the legislature as that mandate is defined today. This Commission's discretion is bound by the Commission's Rules. The

"As a corollary to his speculation regarding competition, Mr. Larkin asserts that it is a simple matter to abrogate the OCL contract because it includes a "regulatory out clause." Hearing Transcript Vol. 2, p. 269, line 25 through p. 270, line 23. Mr. Larkin was unaware that after the OCL contract was executed, the Florida Supreme Court indicated that the Commission is powerless to modify approved OF contracts absent fraud or misrepresentation. Florida Power & Light Co. v. Beard, 626 So.2d 660 (Fla. 1993).

mandate of the legislature is to regulate electric utilities, enforce the utilities' obligation to serve and PURPA's mandate to purchase power from QFs. The Commission's Rules define the means by which that regulation is to occur. Approval of the OCL modification is wholly consistent with all Commission Rules and all statutes governing the Commission.

CONCLUSION

For the reasons set forth above, OCL submits that the early termination modification should be approved.

Respectfully submitted,

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**CERTIFICATE OF SERVICE
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I HEREBY CERTIFY that a true and correct copy of Orlando CoGen Limited, L.P.'s Brief on the Merits has been furnished by Hand Delivery (*) or Facsimile and U.S. Mail (**) this 1st day of December, 1997, to the following:

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Attachment A

DRI Pass Values								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Contract Case			Replacement Case				
Year	Capacity	Energy	Total	Capacity	Energy	Cost	Total	Savings
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	27,828	63,861	11,443	29,820	0	40,963	22,966
2015	38,177	28,890	67,067	11,468	31,258	0	42,723	24,343
2016	40,116	30,387	70,483	11,483	33,114	0	44,606	25,877
2017	42,171	31,674	73,846	11,508	35,088	0	46,594	27,251
2018	44,312	33,123	77,436	11,520	37,185	0	48,718	28,719
2019	46,579	34,887	81,276	11,540	39,452	0	50,993	30,283
2020	48,963	36,452	85,405	11,519	41,855	0	53,374	32,031
2021	51,463	38,071	89,524	11,538	44,430	0	55,968	33,557
2022	54,070	39,905	93,976	11,562	47,188	0	58,751	35,224
2023	56,838	41,830	98,888	11,615	50,087	0	61,882	36,984
NPV	163,436	186,408	338,844	66,297	866,848	43,778	977,188	(100,879)
RADR	5.06%	2.80%		2.63%	4.00%	5.06%		
					129,861		238,636	100,208
					5.06%			

Hearing Exhibit 15
 "DRI Pass Values"
 Modified to show NPV
 effect of contract for
 worst-case gas prices
 under Stallcup RADR
 analysis and accepted
 by witness Stallcup.
 See Tr. Vol. 3, p. 447-448