BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Florida Power Corporation for determination that its plan for curtailing purchases from Qualifying Facilities in minimum load conditions is consistent with Rule 25*17.086, F.A.C.

Docket No. 941101-EQ Submitted for filing: May 2, 1995

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REBUTTAL TESTIMONY OF HENRY I. SOUTHWICK, III

ON BEHALF OF FLORIDA POWER CORPORATION

DOCUMENT NUMBER-DATE

04280 MAY-28

FPSC-RECORDS/REPORTING

FLORIDA POWER CORPORATION DOCKET No. 941101-EQ

REBUTTAL TESTIMONY OF HENRY I. SOUTHWICK, III

I. INTRODUCTION AND PURPOSE

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- Q. Please state your name and business address.
- A. My name is Henry I. Southwick, III. My business address is Post Office
 Box 14042, St. Petersburg, Florida 33733.
- Q. Have you previously testified in this proceeding?
- A. Yes. I filed direct testimony on behalf of Florida Power Corporation ("Florida Power" or "the Company") on February 20, 1995.
- Q. Are you sponsoring any new exhibits together with this rebuttal testimony?
- A. Yes. I am sponsoring Exhibits (HIS-5) through (HIS-10).

Q. What is the purpose of your rebuttal testimony?

A. I will respond to portions of the direct testimony of Messrs. Roy Shanker and Kenneth Slater on behalf of Orlando Cogen Limited, L.P. and Pasco Cogen, Ltd. (jointly "OCL/Pasco"). That testimony questions whether Florida Power is correctly implementing the Commission's rules for curtailing QF purchases under minimum load conditions. Messrs.

Robert Dolan and Steven Lefton also focus on specific segments of that testimony. I will also answer Mr. Roger Yott's contentions made on behalf of OCL that Florida Power is unfairly treating those of its QF suppliers who have not entered into written voluntary output reduction arrangements.

On April 25, 1995, Florida Power received copies of proposed supplemental testimony prepared by Mr. Slater. The Company will address that testimony in separate rebuttal to be filed before the hearing in this docket.

- Q. How is Florida Power's rebuttal testimony organized and how does your testimony fit within that organization?
- A. Florida Power's objective is to highlight the key errors in OCL/Pasco's position. Toward that end, the Company is submitting rebuttal testimony on these primary topics:
 - OCL/Pasco's self-serving and unsupported analytic framework;
 - OCL/Pasco's mischaracterization of the minimum load problem as a mere economic issue of Florida Power's own making and not an "operational problem" justifying curtailments;
 - OCL/Pasco's incorrect assertions that Florida Power can and must do more to avoid involuntary QF curtailments than the substantial mitigation measures already undertaken both within and outside of the Curtailment Plan:
 - OCL/Pasco's false conclusion that the minimum load problem which the Curtailment Plan seeks to remedy will not result in "negative avoided cost" absent curtailments; and
 - OCL's unsupported effort to achieve what would amount to preferential inclusion in the Group A curtailment category.

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Mr. Dolan's rebuttal focuses on the first two of these topics and I will discuss the last three. Mr. Lefton's rebuttal relates to the fourth item, specifically the propriety of including "unit impact" costs in a properly constructed analysis of negative avoided costs.

Our supplemental rebuttal will deal with Mr. Slater's criticisms of the Company's negative avoided cost analyses, including his last-minute manipulations of Unit Commitment data in his April 25, 1995 supplemental testimony.

I would like to emphasize that I disagree with countiess statements and inferences in the OCL/Pasco testimony, but I am confining my discussion to the three major issues covered by my rebuttal. My failure to mention a particular comment by the OCL/Pasco witnesses (particularly those in Mr. Slater's supplemental testimony) should not be taken as acquiescence.

- Q. Before turning to your specific subject areas, would you please describe your general impressions of the intervenor testimony?
- A. Certainly. The fact that only two of the 22 QF suppliers affected by the Curtailment Plan have chosen to file testimony disputing the Plan should itself speak volumes. A number of QFs have supported the Plan's curtailment priorities as being reasonable, and generally, all QFs have been responsive to the Plan when it has been necessary to call for

curtailments. I am convinced that the Plan is grounded on solid principles and is structured in a fair, reasonable, and equitable manner.

Much of the OCL/Pasco testimony amounts to little more than camouflage designed to create the Impression that QF purchases are absolutely unassailable, and to deflect the Commission's attention from the undenlable fact that Florida Power has made tremendous efforts to effectively address the minimum load problem, mitigate the need for curtailments, and achieve a fair apportionment of burdens in the relatively few cases where involuntary curtailments actually become necessary.

It is probably more significant to note what OCL/Pasco do *not* dispute than what they do dispute. For example, there is no substantiated claim in the OCL/Pasco testimony that the Company's exercise of curtailment rights has been anything other than very narrowly applied. In 1994, Florida Power purchased 4,630,882 MWh of QF energy. That figure is expected to rise considerably in 1995 because of new QF projects coming on-line. In sharp contrast, we have asked for involuntary curtailments from QFs in only 31 hours, amounting to only 4,327 MWh or less than one-tenth of one percent. Likewise, OCL/Pasco do not cite or document any specific injury from the Curtailment Plan. If damages of any significance had been incurred, the Commission certainly could have expected to hear about it. Also absent from OCL/Pasco's case is any claim that the Plan fails to provide adequate notice of curtailments

as required by Rule 25-17.086. This is gratifying because one of the Company's major goals was to deal effectively with the notice issue.

Additionally, in three pieces of prefiled testimony, no OCL/Pasco witness even mentions Section 6.3 of their contracts with Florida Power. Thus, no witness denies that this section specifically contemplated the possibility of curtallments in minimum load conditions. Furthermore, OCL/Pasco have not offered an effective challenge to the principle that the Company would incur *some* measure of negative avoided costs if forced to cycle off a Crystal River coal unit instead of a justifiable curtailment. Their challenges at most go to the question of quantifying a negative avoided cost, a task which Florida Power agrees is difficult to accomplish with precision.

When reduced to its essential points, the OCL/Pasco testimony leaves the Commission with a fairly narrow set of Issues on which to focus.

- Q. Please provide a brief summary of your rebuttal.
- A. I begin my analysis from Mr. Dolan's conclusion that Mr. Shanker has created an artificially restrictive framework for evaluating the curtailment issue. As Mr. Dolan explains, Mr. Shanker is reading into the PURPA rules a whole host of substantive tests which in reality simply don't appear in the language of any rule upon which he relies. By doing this, he tries to assume away the minimum load problem, characterizing it as one that should have been planned for and now can be avoided entirely

by taking actions that would impose additional costs and reliability risks on the Company's ratepayers in order to continue payments to the QFs. For the reasons given by Mr. Dolan, the Commission should not adopt Mr. Shanker's self-serving and unsupported analytic framework. However, the evidence establishes that Florida Power's Curtailment Plan would pass muster even under that framework.

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Mr. Dolan also explains why OCL/Pasco are in error when they characterize the minimum load problem as a condition of Florida Power's own making. He establishes that Florida Power has prudently planned its system generation supplies and that those planning decisions have been subjected to ongoing scrutiny by this Commission. Nevertheless, given current minimum load levels, the Company is experiencing a periodic problem matching generation and load during minimum load conditions. This is both a reliability concern and an economic concern as I showed in my direct testimony and as I will elaborate upon in this rebuttal. It is wrong to write the problem off as one that Florida Power should have contracted around by negotiating dispatch rights from QFs. In fact, as Mr. Dolan demonstrates, all of the contracts include the curtailment rights which Florida Power needs to implement the Curtailment Plan; OCL/Pasco's contracts, in particular, refer to those rights unambiguously in Section 6.3. I will show that OCL/Pasco's current arguments simply attempt to avoid justifiable curtailments and to shift the burden of matching generation and load directly onto Florida Power ratepayers.

I will also address the issue of mitigation. The record should leave no doubt that Florida Power has done everything within reason to mitigate curtailments in ways that will not threaten reliability or unreasonably increase ratepayer costs. The additional measures proposed by OCL/Pasco represent unreasonable ways to assume away an excess generation condition. Moreover, as I will explain, if OCL/Pasco's arguments for disposing of excess generation are to be given any credit, then they must also lead to the conclusion that some of the as-available payments being made to the QFs are far greater than warranted on a full avoided cost basis. OCL/Pasco cannot seriously argue that Florida Power has excess energy to sell off-system at a cost of zero, but that an equivalent amount of energy simultaneously being purchased from QFs is avoiding the need for generation at a cost greater than zero.

I will also show that OCL/Pasco's attempts to refute the Company's negative avoided cost conclusions are unfounded. The simple fact is that cycling off a Crystal River coal unit to continue purchasing an equivalent amount of energy from QFs would put the Company in exactly the negative avoided cost situation which the FERC and this Commission have cited as justification for curtailment. Contrary to OCL/Pasco's contentions, Florida Power has examined avoided costs over an appropriate time frame and has amply established that it would incur negative avoided costs in the circumstances where the Curtailment Plan would call for curtailments.

Finally, I will show why Mr. Yott's equity arguments are wrong. It is certainly significant that no other QFs in the Group B or C curtailment categories have raised an equity claim and I do not believe that such a claim is sustainable based on the facts before the Commission. It is also important to remember that OCL has repeatedly been offered the opportunity, but has declined, to join Group A on terms similar to those applicable to all other QFs in Group A. Florida Power has given sound reasons for its curtailment groupings. OCL alone (note that Pasco did not join in sponsoring Mr. Yott's testimony) would like to be treated as if it had contributed assured output reductions to help solve the minimum load problem, when in fact it has not. Florida Power believes that including OCL in Group A would treat OCL preferentially.

- Q. You have said that you see the real issues in this case as being fairly narrow. Please explain where the basic differences lie between the OCL/Pasco position and the Company's position.
- A. OCL/Pasco dispute certain of Florida Power's quantification methods, but have not effectively challenged the Company's conclusion that when forced to begin cycling off baseload units, the Company will incur some measure of increased operating costs (i.e., negative avoided costs) as contemplated by the FERC/FPSC rules. Mr. Shanker in fact conceded as much at page 23 of his testimony where he said that Section 292.304(f) was intended to respond to situations where, "a utility would, absent curtailments, have to turn off its own base road generation due to QF purchases, resulting in net increased operating

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costs (i.e., "negative avoided costs")." The big bone of contention is when this unit cycling/negative avoided cost scenario arises.

Florida Power concludes that the negative avoided cost scenario arises when the Company has:

- (1) taken all reasonable steps, consistent with outstanding contracts/rate schedules, to minimize power purchases from other utility sources;
- (2) reduced self-generation to minimum operating levels consistent with prudent utility practice and sound economic dispatch; and
- (3) maximized interchange sales to an extent which is compatible with regulatory criteria and ratepayer interests.

In contrast, OCL/Pasco assert that the negative avoided cost scenario could only arise after the Company has:

- (1) breached its purchase contracts with other utilities;
- (2) operated Company units so as to jeopardize reliable, costeffective service to customers during normal operating conditions solely to guarantee that QFs will not contribute to an over-generation condition during the relatively few hours of minimum load; and
- (3) given away large amounts of energy below the cost which the Company's customers are paying to generate or purchase energy -- simply to continue buying an equivalent amount of

Florida Power's approach preserves PURPA's objective (discussed by Mr. Dolan) of cost neutrality for native load customers. OCL's approach, in contrast, treats the QF purchases as sacrosanct and represents a direct attack on the ratepayer neutrality principle.

II. REBUTTAL TO OCL/PASCO'S TESTIMONY

- A. Florida Power Should Not Be Required To Engage In Mitigation Measures Beyond Those Already Taken And Contemplated By the Curtailment Plan
- Q. Mr. Shanker claims that all the Company has done to mitigate curtailments (and all that the Curtailment Plan requires) is to (1) pursue additional Florida Energy Broker sales and (2) reduce (but not eliminate) the Company's purchases from the Southern Companies. (Shanker, pages 33-34). Do you agree with Mr. Shanker's assessment of the facts?
- A. No. I have shown that the current minimum load problem is being substantially minimized by use of all reasonable and appropriate measures. Taking further steps to avoid QF curtailments would result in both a threat to system reliability and a direct adverse effect on Company ratepayers.

Mr. Shanker overlooks a large number of measures which the Company has pursued. For example, he fails to mention the Company's recent power sales to Oglethorpe Power Cooperative and the Southeastern Power Administration; additional efforts to market power both on and off the Energy Broker before and during minimum load periods (including direct contacts with all other area utilities likely to have a possible purchase need); significant reductions in the Company's own generating resources (including shutting down the University of Florida unit, shutting down the peaking and intermediate units, and bringing the Crystal River coal units to unprecedented low operating minimums); negotiation of additional voluntary QF output arrangements; and negotiation of a new minimum load energy sell-back arrangement with the Southern Companies.

I have discussed some of these efforts in my direct testimony and I will elaborate on some in this rebuttal. Mr. Shanker is ignoring the fact that Florida Power has gone to extraordinary lengths to control the minimum load problem and to reduce the need for curtailments.

- Q. OCL/Pasco's testimony argues that additional mitigation measures should be followed before initiating involuntary QF curtailments. What is your general response to those claims?
- A. I repeat that Florida Power has gone the extra mile to ensure that curtailments will be kept to a minimum, consistent with existing contracts, reliability considerations, economic system operation and

ratepayer interests. Messrs. Shanker and Slater discuss several ways in which they believe that the Company can and must do more to mitigate the minimum load problem. These are: (1) establishing a policy of interrupting Southern Company purchases before QFs; (2) reconfiguring the commitment of Company generating units; (3) marketing off-system energy at any market clearing price; and (4) cutting retail prices. The first two measures are aimed at further reducing generation, while the second two are designed to elevate demand.

in effect, OCL/Pasco are saying that the minimum load problem is not real. They claim there is no mismatch between generation and load because generation can always be further reduced to eliminate the problem and load can always be bumped up with the same effect. There is, according to Messrs. Shanker and Slater, no operational problem at all because there are solutions which the Company is simply unwilling to accept because of economic impacts on itself or its ratepayers. Presumably, in the theoretical world created by these witnesses, the minimum load unit cycling conditions described both by the FERC and this Commission as justifying curtailments would never arise because a utility like Florida Power could always cause an excess generation condition to evaporate by (1) walking away from its firm utility purchase commitments; (2) redispatching the system to cycle off baseload units on a long-term basis in order to avoid doing so in the short-term; (3) giving away wholesale interchange power and, by the

I will discuss each of these measures in turn and it should become readily apparent that they represent unrealistic, unreliable and/or uneconomic ways in which to address the minimum load problem.

1. Interrupting Purchases From The Southern Companies

- Q. Do you agree with OCL/Pasco's assertion that Florida Power is subordinating firm QF purchase contracts to firm utility purchase contracts?
 - Absolutely not. Before initiating any involuntary QF curtailments, the Company has committed to curtailing all of its firm power purchases from other utilities to the maximum extent allowed by the applicable contracts. In the case of Tampa Electric, Florida Power can and will reduce its purchases to zero prior to any involuntary QF curtailments. In the case of the Southern Companies, the purchases will be reduced as much as possible without running afoul of the existing contractual arrangements. As a result, the QF purchases actually are given a better interruption priority than the utility purchases not an inferior priority as OCL/Pasco suggest. Mr. Shanker says that *FPC should curtail its other firm utility purchases prior to attempting to curtail purchases from the Cogens." (Shanker, page 34). Florida Power has committed to

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- Q. is Florida Power somehow placing more importance on its compliance with utility contracts than on its compliance with QF contracts?
- A. No. Florida Power is living by the terms of all of its contracts. It is important to recognize, however, that the contracts are not all the same. The Southern Companies contract, entered into in 1988, contained certain absolute minimum purchase obligations depending on circumstances on the Southern Companies' system. As part of a contract and a FERC-jurisdictional rate schedule, those minimum purchase requirements are enforceable against Florida Power. contrast, as explained by Mr. Dolan, the Company's QF contracts, many of which like OCL/Pasco's were entered into after the contract with the Southern Companies, anticipated and expressly sanctioned purchase interruptions when made in accordance with Rule 25-17.086. This is a material distinction in contract terms which cannot be ignored. Under the Curtailment Plan, Florida Power is simply applying the various contracts as written.
- Q. How do you respond to the assertion that Fiorida Power could do more to reduce its utility power purchases?
- A. There is no truth to that assertion. As I explained in my direct testimony (at pages 17-18), before each of the first seven curtailment events, Florida Power's system operating personnel in fact avoided all

purchases from Tampa Electric and reduced the purchases from the Southern Companies as much as the contract would allow. During some of the curtallment events, the Southern purchases were avoided entirely and during every event those purchases were reduced to well below the 168 MVV contract minimum.

Thus, Florida Power already has been substantially reducing the Southern Companies purchases from the base 400 MW purchase amount. Moreover, Florida Power has continued its efforts to even further avoid purchases from the Southern Companies during minimum load conditions. At the end of February 1995, we reached an understanding with the Southern Companies that should greatly assist in mitigating the minimum load problem in the future.

Q. Please describe that understanding with the Southern Companies.

A. The arrangement with the Southern Companies is summarized in my February 27, 1995 letter to Mr. James Tulloss of Southern Company Services, Inc. (See Exhibit ___(HIS-5)). Basically, the agreement permits Florida Power to reduce system generation by selling back the required purchases to the Southern Companies during minimum load periods whenever Florida Power's energy cost is at or below the Southern Companies' energy cost. These sales initially will occur under Service Schedule C of the parties' interchange contract.

- Q. Mr. Shanker sees no problem in a hypothetical situation in which Florida

 Power would be required to pay for power from the Southern

 Companies, but would not receive that power. (Shanker, pages 36-37).

 Do you agree?
- A. I disagree for two reasons. First, if his scenario were to arise, the net effect would be an unwarranted cost burden on Florida Power's ratepayers incurred solely to preserve a cost subsidy to the QFs. The Commission should not require Florida Power to mitigate one adverse cost impact on ratepayers (the unit cycling scenario) by first incurring another type of adverse cost impact for the ratepayers. Florida Power does not believe that the PURPA rules or the QF contracts should be read to require this unreasonable result.

Second, Mr. Shanker overlooks a very significant point, which is that the Southern Companies purchase requires minimum takes, not just minimum payments. When the Southern Companies also are experiencing light loads, they too have no need for the excess energy and it may not be possible for Florida Power to refuse deliveries.

2. Reconfiguring Commitment Of Florida Power Units

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- Q. Mr. Shanker asserts that Florida Power has not planned shead for a minimum load problem which it has anticipated for two years or more. (Shanker, page 38). Is he right?
 - No. The Company has been actively pursuing ways to minimize the minimum load problem for at least two years. As early as the beginning of 1993, we began investigating options to reduce our own unit output during minimum load periods. As a result, we expended substantial time and resources making modifications to the Crystal River coal units as well as other Company generating units to improve their low-load operation, by expanding their load control ranges, increasing their ramp rates, and reducing their minimum generation capability far below the historic levels. We also attempted to renegotiate or work to mitigate the minimum purchase requirements in the Company's contract with the Southern Companies. As I discussed earlier, we recently were successful in that effort. in addition, the Company investigated potential ways to increase retail customer loads, but as I discuss later, it was concluded that this would not be feasible. In mid-to-late 1993, we also began factoring the minimum load issue into the maintenance schedule planning for our units and for the QF units. These examples illustrate that the Company has responsibly approached the minimum load problem in a variety of ways and has worked hard over the past couple of years to minimize any impact on QFs in advance of the problem.

Yes. We are reducing minimum load problems on an ongoing basis through off-system sales (including the recent sales discussed in Mr. Harper's direct testimony to the Rocky Mountain Hydro project and the Carter's Dam project); our new power sell-back arrangement with the Southern Companies; scheduling of maintenance for our own units and for the QF units; and making optimal use of the voluntary QF output reductions including an additional arrangement under which Tiger Bay agreed to come off-line each night near the end of 1994 upon request (thereby avoiding six curtailments in December 1994 that otherwise would have been required). We are devoting more time and personnel resources than ever before to the planning and operations processes in order to minimize QF curtailments. In addition, we have obtained access to longer-term weather forecasting services to better anticipate our loads and resource needs.

We have made many operating decisions in recent months to help avert QF curtailments, such as keeping Company units off-line even though they were scheduled to return to service after a maintenance outage, advancing the dates for scheduled maintenance, and slowing the rate at which the Crystal River nuclear unit was returned to service after an outage.

- A. He is wrong on that point as well. In earlier years, Florida Power typically performed its Unit Commitment analyses for periods as short as two days. We now do these analyses for a minimum of four days and for as long as ten days. The decision to extend this period was based, in large part, on the need to anticipate and deal effectively with minimum load conditions.
- Q. Do you agree with OCL/Pasco that Florida Power could do more to mitigate the minimum load problem by changing the manner in which its units are committed?
- A. No. As I explained earlier, Florida Power has taken all reasonable steps both to minimize power purchased from other utility sources and to reduce self generation to minimum operating levels consistent with prudent utility management and sound economic dispatch. OCL/Pasco's contentions that Florida Power could do more in this regard by changing the type or number of units committed during a period of up to a week is wrong for two main reasons. First, Florida Power does not know that far ahead of time if a minimum load condition actually will occur, much less the precise time and magnitude of such an event. Second, even if Florida Power had such knowledge, sound economic dispatch considerations would prevent the type of long-term unit commitment

- 1. Could you explain why Florida Power cannot precisely predict the magnitude or occurrence of a minimum load condition and how this impacts the actions proposed by OCL/Pasco?
 - Yes. While Florida Power can make general predictions of potential minimum load problems based on weather forecasts and other system factors, and even though we are now looking at these potential situations more carefully than ever, the actual occurrence of a minimum load problem depends upon a variety of factors causing the loads and resources (including QF generation) to change. There were a large number of potential minimum load (and curtailment) situations during the October 1994 through April 1995 period, yet there were only seven curtailment events. If Florida Power had implemented some action, such as a curtailment, during all periods that had the potential for a minimum load problem, there would have been many needless curtailments.
 - Even though we carefully compile and review all available information, we often have no more than a few hour's notice that a minimum load problem might occur. This short-term warning seems to preclude the week-ahead system planning fixes that are suggested by OCL/Pasco.

down a baseload unit over an extended period of time and still have no trouble meeting peak loads with uncommitted cycling capacity, peakers or power purchases. While such capacity may be available operationally, it would only be available at much higher cost. Mr. Slater is asking us to ignore sound economic dispatch decisions without any recognition of the adverse ratepayer consequences.

Florida Power follows a customary industry practice of committing units and dispatching them to minimize the cost to ratepayers. Therefore, even if we knew a week shead of time that a minimum load condition would occur, the most economical solution would probably not be to cycle off a coal-fired baseload plant for the entire week, since higher-cost units would have to be run during the peak periods to make up the energy from the shut-down coal unit, thus raising the overall cost to ratepayers.

Again, OCL/Pasco seem to be using the circular argument that if one starts with the premise that QF purchases can never be curtailed, then Florida Power could take actions that might prevent the need for those QFs to be curtailed. We do not accept that premise. OCL/Pasco's suggestion that Florida Power change its unit commitment practices to

Q. Are there other problems with this suggestion by OCL/Pasco?

A. Yes. As I said earlier, there are many periods that have the potential to become minimum load problems. A Level 1 Minimum Load Alert under the Curtailment Plan has been issued 47 times since October 1994, and that number understates the total number of times where a minimum load problem was possible but was avoided without having to issue an alert. If Florida Power were to follow OCL/Pasco's suggestion, this would mean changing unit commitment, and raising costs, for each period in which a minimum load problem is expected — many more than the number of actual curtailment events. Since many of these predicted minimum load problems will not occur, costs would be raised considerably for ratepayers.

3. Off-System Sales At Discounted Prices

- Q. Do you agree with OCL/Pasco that Florida Power could do more to mitigate the minimum load problem by marketing power at wholesale?
- A. No. We are following a practice of marketing as much power as we can both before and during curtailment events consistent with established interchange practices in the state of Florida. OCL/Pasco's contentions

that the Company should sell more power by dropping its prices is an excellent example of my earlier statement that OCL/Pasco would prefer to assume that there never will be any excess generation. This can be seen clearly in Mr. Slater's comment that "FPC's plan fails to require that FPC attempt to market excess generation at a price designed to ensure a sale" (Slater, page 5). If the sale of all excess energy must be "ensured," then it is hard to imagine a situation when there ever would be any excess generation.

- Q. Is it a given, as Mr. Shanker assumes (Shanker, page 40), that "FPC can increase sales by lowering its offering price on or off the Energy Broker"?
- A. No, this is not necessarily so during minimum load periods. As I have testified previously, minimum load conditions are a function of weather conditions. In Florida, these minimum load conditions generally occur during nighttime hours when, because of mild weather conditions, there is neither a major heating nor cooling demand. Generally, the prevailing weather conditions are comparable throughout the region, meaning that all area utilities are dealing with relatively low loads at the same time. It is very likely that, when Florida Power is experiencing its minimum loads, there will be few or no takers for its excess generation.

There is also another important point concerning the use of the Florida Energy Broker as a vehicle for mitigating QF curtailments. By definition, Broker sales are hourly transactions. There is no assurance that any

Broker transaction will continue from one hour to the next, particularly when everyone in the state is experiencing low demands. On the other hand, the Company has to manage its minimum load conditions across a period which typically spans about three to six hours. When entering a minimum load period, the system operating personnel need to have a workable strategy for balancing the generation and load throughout that period. Using the Broker for this purpose is not feasible because an energy sale may be "here one hour and gone the next." The result of this haphazard scheduling would mean that curtailment instructions also would have to be given on an hour-to-hour basis creating a potential yo-yo effect on the QFs and a scheduling nightmare for the system dispatcher.

- Q. Can you explain why it is important for a utility that is selling power offsystem to recover at least the full cost of producing (or purchasing) that power?
 - The answer relates to the question of whether the utility's production costs (including purchased power costs) are being properly allocated among the utility's different customer classes. Generally, power plant capacity is constructed or purchased to serve the peak needs of a utility's native load customers. As a consequence, rates for the utility's native load customers are designed so that these customers bear the entire cost of the utility's generation, including capacity costs and energy costs such as fuel and variable O&M expenses. However, from time to time the utility is able to market temporarily unneeded capacity

 or energy. These off-system sales can benefit the native load customers who have supported the utility's system and who are paying for fuel used to produce energy, because the revenues received from off-system sales are returned to the native load customers in the form of a cost-of-service credit. When a sale is priced at or above the seller's highest production (or purchased power) cost at the time of the sale, the revenue credits will provide a native load benefit. On the other hand, a sale priced below the cost of producing (or purchasing) the energy would fail to return a sufficient credit to the native load customers. In that case, the native load customers would be paying to generate (or purchase) the energy sold to another utility while recovering only a portion of that cost — in other words, the native load customers would be subsidizing the sale.

- 2. Are OCL/Pasco arguing that Florida Power should be forced to sell power on the interchange market at prices below its incremental cost of production?
- A. No. Mr. Shanker concedes that he is not proposing that the Company should sell economy energy below its incremental cost. (Shanker, page 41). Mr. Slater's analysis accepts Mr. Shanker's premise. (Slater, page 9).
- Q. If OCL/Pasco accept the concept of an incremental cost pricing floor for off-system sales, then why is there a dispute on this subject?

Messrs. Shanker and Slater make the same contention from different perspectives. Their point is that Florida Power is not calculating its costs correctly during minimum load periods and that, during such periods, Florida Power should be happy to sell energy at any price at or above zero.

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Q. Do you agree?

No. Their position is inconsistent with longstanding practice throughout Florida and it would unreasonably shift the costs of continuing QF purchases onto the backs of Florida Power's native load customers. Their position assumes that QF purchases are always "must-take" rather than acknowledging that QF purchases both by law and contract can be curtailed where continuing the purchases would be more costly to ratepayers. Moreover, their approach could not prevail without also concluding that the as-available price determined for a portion of the QF purchases during minimum load conditions is also overstated.

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Please explain in general terms the arrangements which Florida Power has in place to market power off-system.

The Company sells power off-system under a variety of bilateral agreements which are structured to provide mutual benefits from purchase and sale transactions. Some arrangements are fairly longterm, such as our summer peaking capacity sales to Georgia Power Company and Oglethorpe Power Cooperative.

Many of our off-system sales are shorter-term and are made under the interchange contracts which Florida Power has entered into with other utilities. The Company's interchange partners are located throughout the Southeastern United States and include investor-owned utilities, municipalities, and electric generation and transmission cooperatives. The interchange contracts provide flexibility to accommodate ongoing transactions to meet different operating needs. The individual sales occur under one of a series of service schedules, which provide service options like emergency, short-term firm and economy energy service.

As is common in the industry, these service schedules provide pricing methodologies, rather than a pre-determined price. For example, a sale may be priced at incremental cost plus losses and a capacity reservation charge. Or, the methodology may specify a split-savings rate which can fluctuate but is set half-way between the seller's incremental cost and the buyer's decremental cost. Under these schedules, Florida Power may at times be a seller and at times be a buyer. Therefore, it is important that both interchange partners share a common understanding as to how the pricing methodologies will be followed over time.

- Q. Please explain how purchase and sale transactions are accomplished on the Florida Energy Broker.
- A. A number of generating utilities in Florida participate in the Energy Broker system as a means of maximizing hourly economy energy transactions. The Broker enables the participants to match sell quotes

and buy quotes for hourly energy transactions. A computer which is housed at Tampa Electric Company matches the lowest sell bids with the highest buy bids in succession. The goal of this process is to maximize statewide savings available through hourly economy energy transactions.

Q. Do the Broker transactions occur automatically?

A. No. Once the computer matches the buy-sell quotes, the individual utilities must contact each other and schedule a transaction. There are no rate schedules or service agreements that make up the Energy Broker. In order to transact business, the buyer and seller must have a separate interchange contract which sets out the terms for their economy energy transactions.

Q. What interchange schedule is used to make Broker sales?

A. Broker sales are made under Schedule C of the buyer and seller's interchange contract. Schedule C is an economy energy rate schedule under which the price is based on a half-way split between the seller's system incremental cost and the buyer's system decremental cost.

Q. Is there consistency in the way that Energy Broker participants compute their incremental and decremental cost quotes?

A. I believe that there is a general understanding among the participants as to how these quotes are derived. This is not an issue over which disputes typically arise.

Yes. The Energy Broker guidelines promote consistency by laying out a framework for the calculation of incremental and decremental cost quotes. A copy of those guidelines can be found in my Exhibit___(HIS-6). The guidelines devote several pages to a description of the "Costing Methodology of Economy Energy." They explain, for example (at page 7) that:

Generally, bilateral contracts specify that all identifiable incremental costs for a particular hourly transaction should be included in price quotations. These prices may include:

- a) System incremental fuel cost (e.g., derived from composite heat rate curves of all units' curve [sic], times the incremental replacement cost of fuel.)
- b) Incremental transmission cost.
- c) Incremental operation and maintenance cost.

Q. When does Florida Power make interchange sales on an off-Broker basis?

A. There are many occasions and reasons to sell power off-Broker. First of all, as I said earlier, the Broker only handles hourly transactions. Longer-term sales necessarily would be made off-Broker. Also, the Broker only deals with economy energy transactions. Therefore, any sale that has a capacity component (e.g., short-term firm, assured capacity and energy, etc.) would be made off-Broker.

- A. Depending upon the nature of the sale and the contract or service schedule that best fits the circumstances, the total price quote may differ. For example, a short-term firm sale price would include a capacity charge in addition to an energy charge reflecting the incremental cost of the unit(s) from which the energy will be supplied. However, the basic principle applies both on and off the Broker that, in establishing an energy price component, the Company will recover at least the cost of generating (or purchasing) the MWh of energy that is being sold. This is consistent with the Broker guideline which requires that incremental cost pricing for Broker sales will be calculated in the same way that the participant calculates incremental cost data for its other system operating purposes.
- Q. Can you give an example of an off-Broker agreement that captures the full generating cost concept that you have explained?
- A. Yes. A good example is the Contract for Purchases and Sales of Scheduled Power and Energy between Florida Power and Florida Power & Light Company. (Exhibit___(HIS-7)). That contract states that no transaction will be priced below the seller's incremental cost, and it defines the seller's incremental cost as follows:

The Seller's Incremental Energy Cost shall be the Seller's incremental fuel cost for load dispatching in effect at the time of the transaction as determined by the Seller, which calculation shall include any start-up costs incurred in the

incremental cost here is being defined by reference to the fuel used to generate a block of energy above the energy needed for immediate native load purposes.

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Q. Mr. Shanker argues that Florida Power must use different methods to calculate incremental cost during "normal" conditions and during minimum load conditions. (Shanker, pages 42-43). Do you know of any precedent for this methodological distinction among Florida utilities?

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Q. Is it typical for utilities in Florida to quote interchange sales prices at or near zero?

A. No.

No.

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- Q. Mr. Slater describes his understanding of "dump energy" practices among utilities in two power pools. (Slater, page 13). Does such a dump energy practice make sense here?
- A. I see no particular relevance to the pricing arrangements that might be practiced in the New York Power Pool or the PJM Pool. Moreover, Mr.

Slater expects Florida Power to "dump" energy below the cost incurred to generate (or purchase) it solely so that the QFs can continue receiving higher as-available energy payments. This is nothing more than a subsidy from the ratepayers to the QFs -- one form of negative cost impact to mitigate another form of negative cost impact.

Q. Do you agree that Messrs. Shanker and Slater are properly measuring the cost of Florida Power's generation (or purchases) during minimum load conditions?

A. No. These witnesses lose sight of one very important consideration. In the unit cycling scenario described in the Curtailment Plan, Florida Power experiences a clear negative avoided cost which warrants QF curtailments and a corresponding avoidance of as-available energy payments. As an alternative to the negative cost impact which justifies a curtailment, OCL/Pasco would like Florida Power's ratepayers to accept another negative cost impact — that is the impact of selling power for less than it cost the ratepayers to generate the power or purchase it (including the purchases from the QFs). In fact, Florida Power's true cost in a minimum load period must take into account the impact of the QF purchases.

Q. Please respond next to Mr. Slater's contention that Florida Power cannot establish a negative avoided cost unless it can show a direct increase in production costs. (Slater, page 10).

This statement is inconsistent with Mr. Slater's agreement that, when calculating a utility's avoided cost, "it is wholly appropriate to capture all recognizable costs associated with the utility meeting the demands of its customers." (Slater, page 17). More importantly, though, Florida Power has shown that when forced to begin cycling the Crystal River Coal units, additional production-related costs will be incurred; the only real question posed by OCL/Pasco is when this will occur.

Mr. Slater has placed the cart before the horse. He presumes that no cycling scanario will ever arise because Florida Power can first give power away off-system without having a direct impact on additional production costs. In fact, however, his proposal to sell power off-system at less than the full cost of producing (or purchasing) those particular MWh would have a direct adverse cost impact on Florida Power's ratepayers by forcing them to subsidize continued QF purchases. In the FERC's words, which are quoted in Mr. Dolan's testimony, these off-system sales "would not be just and reasonable to the consumers of the electric utility, because it would result in increased costs to the system's ratepayers." Therefore, giving away power at a price of zero should never be required as a mitigation measure, and absent this mitigation measure and the other excessive measures proposed by OCL/Pasco, there is no question that the unit

Q. Do you have any other criticism of Mr. Slater's pricing theory?

cycling/increased production cost scenario results.

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Yes. Acceptance of Mr. Slater's theory would lead to absurd results. He says that "FPC can offer the excess generation at any price above zero without causing the avoided cost calculation to show a negative result." This is because, according to Mr. Slater, "the price at which the excess is offered for sale is unrelated to costs incurred to produce and is therefore irrelevant to the calculation of avoided costs." (Slater, page 12).

If the price, indeed, could never be relevant because it has no impact on the cost of production, then the same argument would suggest that Florida Power should be prepared to pay a would-be purchaser to buy the excess energy. In other words, Mr. Slater has given no reason for a pricing floor of zero.

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Obviously, in this absurd extension of Mr. Slater's argument, the Company would be incurring a direct, measurable cost in the form of a payment to the power purchaser, yet Mr. Slater's rationale would consider this cost wholly immaterial.

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- Q. Please elaborate on your point that selling power at prices at or only alightly above zero during minimum load conditions to avoid curtailing QF purchases would result in an unwarranted subsidy from the native load customers.
- Exhibit ___(HIS-8) shows the as-available energy prices that were being 24

were made. The payments ranged from \$13.47 to \$17.04 and averaged \$15.62. These payments are equivalent to the system incremental energy cost that would have been incurred to generate a block of energy as large as the combined as-available QF energy deliveries in each hour. During the minimum load curtailment events, this cost would have been based entirely or mostly on the cost of coal-fired generation.

When Florida Power is generating coal-fired energy at about \$15 and purchasing QF energy at about \$15, then it can sell any temporarily excess energy at or above the \$15 threshold and either remain revenue neutral or perhaps realize some revenue benefit for native load customers. On the other hand, if the Company were compelled to sell this energy at, say \$1, simply to continue purchasing QF energy at \$15, then there would be an obvious subsidization of the QFs by the Company's native load customers. In order to avoid curtailing the QFs, Florida Power's ratepayers would realize inadequate revenue credits to offset their incurred generation costs.

Q. In the situation you have described, would the Company's customers be incurring costs that they would not have incurred in the absence of the QF purchases?

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point. Suppose that:

Yes, they would. Let me elaborate on my example to illustrate this

 In HOUR 1, the Company has a minimum load of 2,000 MW, and is supplying that load as follows:

- 1,800 MW of Company generation, plus
- 200 MW of QF purchases;
- In HOUR 2, the Company's minimum load is 1,700 MW, so the Company reduces its own generation to 1,650 MW, which consists (rounded) of 795 MW from Crystal River 3; 260 MW from Crystal River 1 and 2; and 600 MW from Crystal River 4 and 5;
- The Company's production cost for an additional 50 MW in HOUR 2 is \$15 (based on to the price of coal applied to the heat rate curve(s) of the Crystal River coal unit(s) that would be ramped up to generate that increment of energy);
- The as-available energy price being paid to QFs for their 200 MW purchase block is roughly the same \$15 per MWh coal cost;
- Florida Power has unsuccessfully attempted to market power both on and off the Energy Broker in 50 MW blocks at any price at or above the \$15 per MWh production cost.

To further reduce Florida Power's own generation would require it to cycle off a Crystal River coal unit. This would cause the Company to incur some measure of negative avoided costs. Therefore, under the Curtailment Plan, this is the point at which QF curtailments would be initiated. Florida Power would curtail the purchase of 150 MW of QF energy for HOUR 2 (1,650 MW Company generation + 200 MW QF generation - 1,700 MW load = 150 MW excess).

Assume, however, that instead of this justifiable curtailment, the Company continued to purchase the unneeded 150 MW at \$15 per MWh, while simultaneously selling 150 MW of energy at a price of only \$1 per MWh. In this example, the Company's net costs would be unjustifiably increased by the differential between the \$15 per MWh production (and QF purchase) cost (\$2,250) and the \$1 per MWh revenue recovery (\$150). This \$2,100 net cost is a direct result of the

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sale of an equivalent amount of energy at less than the cost incurred to supply that energy. As I have said, this cost would be borne by the native load customers, contrary to the objectives of PURPA.

- Q. Mr. Shanker gives an example at page 43 of his testimony using different numbers in an attempt to show that Florida Power is incorrectly measuring its energy costs during minimum load conditions. Is there a logical foundation for his hypothetical system conditions?
- No. Mr. Shanker has assumed an infeasible operating scenario. He then draws an unsupported conclusion regarding the cost (or perhaps the value) of a 100 MW block of Company-generated (or purchased) energy which he assumes to be in excess of the Company's needs.
- What's wrong with Mr. Shanker's assumed operating scenario?
- Mr. Shanker assumes that neither utility generation nor QF purchases can be reduced from the levels stated in his example. In reality, either of these generation sources can be reduced if it becomes necessary to do so. The 100 MW block of energy that Mr. Shanker assumes will be produced (or purchased) irrespective of load would not be produced (or purchased) under actual operating conditions.
- In Mr. Shanker's example of a 2,000 MW load and 2,100 MW of generation (1,800 from Company units, 100 from the Southern Companies and 200 MW from QFs}, how would the Company go about adjusting the resources to match the load?

- A. If we expected such a condition to materialize, we would take steps to deal with it before it arose. As specified in the Curtailment Plan, we would attempt to avoid the excess generation condition by reducing (or selling back) the purchase from the Southern Companies. If the 100 MW assumed purchase from the Southern Companies could be avoided, the generation and load could be brought into balance without need for further reductions in either Company or QF generation.
- Q. What else would the Company do to respond to Mr. Shanker's hypothetical operating condition?
- A. If necessary, Florida Power would lower its self-generation at least to the normal minimum generation levels shown in the Curtailment Plan. As summarized in my earlier example, this would enable the Company to bring its self-generation to about 1,650 MW or 150 MW below the minimum generation level assumed in Mr. Shanker's example. In fact, only a portion of this potential 150 MW reduction would be needed to eliminate the entire 100 MW excess generation condition assumed by Mr. Shanker.
- Q. So is it fair to say that Mr. Shanker's hypothetical condition would not occur under actual system conditions?
- A. That is correct.

- Q. If one were to reformulate Mr. Shanker's example so that (1) Company generation already was at the 1,650 MW normal minimum level, and (2) Southern Companies purchases already were reduced to a minimum, and (3) the Company was making 200 MW of QF purchases at asavallable prices, and (4) load and generation were in balance, but (5) in the next hour the load was expected to decline by another 100 MW such that an excess generation condition was expected, would it then be correct, as Mr. Shanker suggests, that Florida Power would have no discretion to further reduce generation?
- A. No. Even in that more plausible example, Florida Power would not (and for reliability reasons could not) allow the assumed excess generation condition to materialize. Therefore, it would further reduce system generation by 100 MW. The main issue in this case is whether that reduction must come from a Company unit (i.e., a cycling event) or whether it could be accomplished with a permitted curtailment of 100 MW of the assumed 200 MW QF supply. Because the cycling scenario under these system operating circumstances would cause the Company to incur negative avoided costs, the Curtailment Plan would authorize a 100 MW QF curtailment in this situation.

Only by incorrectly presuming that Florida Power can *never* curtail any portion of its QF purchases to avoid excess generation in minimum load conditions, could Mr. Shanker draw the equally incorrect conclusion that "FPC can not save any money by producing less [or purchasing less from the QFs], because it cannot produce less [or purchase less from

- Q. You previously stated that, if one were to accept the Shanker/Slater pricing contentions, one would also have to conclude that the QFs are being paid too much for as-available energy. Can you please elaborate?
- A. Certainly. The fundamental notion of avoided cost pricing is that the QF supply enables the purchasing utility to avoid the alternative cost of generating or purchasing an equivalent amount of needed capacity and/or energy. For present purposes, I am focusing only on the asavailable energy.

The basic premise of the Shanker/Stater theory is that, in minimum load conditions, we are dealing with a disposal of "excess energy" which is not needed by Florida Power and which altegedly has a cost to Florida Power of zero. If that were assumed to be true (and I don't agree with the zero cost assumption), then Messrs. Shanker and Stater could not possibly argue in good faith that, as to the number of MWh of excess, any QF is (1) enabling the Company to avoid generating that energy, or (2) enabling the Company to avoid an energy production cost. The same energy amount cannot be a zero cost resource from Florida Power's perspective, but a much higher cost resource when it is supplied by the QFs. In fact, because of the way in which avoided energy cost pricing is determined, the block of QF-supplied energy theoretically should be priced at or near the price of energy which is

sold on the interchange market. The only reason for a significant difference in price would be a difference in the relative block sizes of the interchange sales and the QF purchases. In other words, if one accepts the Shanker/Slater analysis, then an equivalent sized block of QF energy would be priced at or near zero.

- Q. Please elaborate on the pricing procedures under which the QF energy theoretically should be priced at or near zero in the Shanker/Slater framework?
- A. The Commission's Rule 25-17.0825(2)(a) describes the required method for determining as-available energy prices for QFs. It says that:

Avoided energy costs associated with as-available energy are defined as the utility's actual avoided cost before the sale of interchange energy.

The Commission has explained that the reason for looking at the as-available price before interchange sales is to ensure that the utility's ratepayers (and not the QFs) will realize the benefits from interchange sales. For example, in Order No. 12634, Docket No. 820406-EU (October 27, 1983) at pages 10-11, the Commission stated:

The rule defines avoided energy costs as a utility's actual hourly incremental costs for those hours during which no economy energy transactions occur, actual incremental costs after the purchase of economy energy, or actual incremental costs before the sale of economy energy. It is necessary to calculate avoided costs before economy energy or broker sales and after broker purchases to preserve the benefits of the Florida energy broker system for the ratepayers of the participating utilities. Broker purchases enable a utility to lower its overall fuel costs by purchasing energy at a price less than what it would have cost the utility to generate the power itself. This opportunity to lower fuel costs should be preserved; it is preserved if avoided energy prices for QFs

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are calculated after such purchases have occurred. Broker sales also benefit a utility's ratepayers because we required the profit from broker sales to be accounted for when a utility's base rates are set. The level of income realized from broker sales would decrease if the costs to produce energy sold on the broker system were increased by calculating avoided energy prices for QFs after such sales have occurred. The level of income from broker sales is less affected by the presence of QFs on the utility's system if avoided energy prices for QFs are calculated before broker sales occur. Because we do not believe other ratepavers should experience an increase in the cost to serve them as a result of the presence of QFs. we reject Dade County's contention that avoided energy costs should be calculated after broker sales have occurred.

Pricing QF energy before interchange sales means that the QF price is derived without reference to the off-system sales - - in other words, based on the same increment of energy that would have been sold on the interchange market. Except for a potential difference in the size of the off-system sale block and the as-available energy block, the two prices should be approximately the same. It is logically not possible to correctly suppose a condition in which economy energy sales should be priced at approximately zero, while at the same time, an equivalent amount of as-available energy is being properly priced at a level much higher than zero.

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- Q. Do you have any other comments on the OCL/Pasco proposal that Florida Power be required to further mitigate curtailments by modifying the way it (and its interchange partners) determine incremental cost?
- A. Yes, just two points. First, Mr. Dolan's rebuttal testimony reveals that the FERC had a very good opportunity to put an explicit off-system sales mitigation requirement into its curtailment rule. FERC did not do

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that even though two fellow regulatory agencies had asked it to; indeed, as explained by Mr. Dolan, FERC stated that its rules do not require a utility to deliver unneeded energy to any third party. Mr. Dolan also shows that this Commission's rules simply encourage off-system sales of unneeded QF energy and only where the sale price is cost-effective to the ratepayers.

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Second, Florida Power has no objection if OCL/Pasco want to market their own curtailed energy to a third party (at any price they choose. including a price below, at or above their own production costs). Section 6.3 of the contracts with these parties lets them dispose of their curtailed energy in any way they choose. That section also says that Florida Power has no obligation to transmit curtailed energy amounts to third parties. But, notwithstanding that provision, Florida Power is certainly willing to wheel their energy to another buyer under the Company's open access transmission tariffs.

4. Retail Sales At Discounted Prices

- Mr. Shanker also suggests that Florida Power should cut its retail prices in order to encourage off-peak demand increases. (Shanker, pages 45-46). Please respond.
- A. This is really nothing more than an extension of the low-cost wholesale sale proposal. Mr. Shanker is again attempting to create the false impression that the minimum load problem can be handled exclusively

as a demand-side problem rather than a supply-side problem. For all the reasons I have given on the wholesale side, I also strongly disagree with Mr. Shanker's unsupported retail pricing proposal.

- Does Florida Power already have measures in place to create economic incentives for its large industrial customers to increase consumption during off-peak periods?
- A. Yes. Florida Power currently has a time-of-use rate which includes two pricing tiers to reflect peak and off-peak usage.
- Q. Has Florida Power considered whether additional pricing incentives might be used to increase retail demand and thereby help to alleviate the minimum load problem?
- A. Yes. The Company has considered the possible creation of a three-tier retail industrial rate which would separately price energy for the midnight shift hours. However, given the nature of the Company's retail industrial load, this investigation concluded that there was no significant opportunity to increase the retail demand through further price cuts. All that would have resulted was a windfall price reduction to the industrial customers.
- Q. Do you agree that Mr. Shanker's example (Shanker, pages 45-46) of industrial cogenerators reducing the output of their internal cogeneration systems represents a viable method of alleviating minimum load conditions?

- No. There are no industrial cogenerators on the Florida Power system with generation that is not integral to their manufacturing processes. Therefore, there are none that could have any impact on the problem. Because the cogenerators' thermal processes are linked to the use of their own generating equipment, they could not shut down their generators, as Mr. Shanker suggests, without simultaneously stopping their entire production process.
- Q. Do you believe that Mr. Shanker's cut-rate retail pricing proposal has any merit?
- A. No. Even if otherwise in the interest of Florida Power and its ratepayers, reductions in the existing time-of-use pricing would not be likely to materially affect the midnight shift load patterns, especially not in the short-term period when we most need to deal with the minimum load problem.

Florida Power is in the business of selling electricity. It benefits the Company and its customers whenever we can increase demand to make use of available generating resources. But, it is not in anyone's interest, except perhaps OCL/Pasco's, if we pay more to generate or purchase power than we receive when we sell that power. This proposition seems clear to me. Reducing retail rates to continue buying QF output at higher rates means (1) the QF output is not needed, and (2) our other customers are subsidizing the QFs by receiving too little on the sale side and paying too much on the purchase side. The only beneficiaries are

the QF and, in Mr. Shanker's proposal, the individual retail customer who happens to get a reduction in his rates.

- B. OCL/Pasco's Negative Avoided Cost Criticisms
 Do Not Undermine Florida Power's Curtailment
 Plan
- 1. Florida Power's Timeframe For Avoided Cost Analysis
- Q. Do you agree with the assertions made by Messrs. Shanker and Sixter that Florida Power has used the wrong time frame to calculate negative avoided costs?
- A. No. The Company explained in a conceptual way and made model runs to illustrate that negative avoided costs would have occurred during the seven curtallment events if no curtallments had taken place. The Unit Commit model runs were made over periods ranging from one to three days. The time period examined was more than sufficient to capture the full impact of negative avoided costs as a result of not curtailing. At a minimum, these impacts consist of increased costs due to baseload unit start-up costs and higher generation costs during the period when a baseload unit is shut down. These increased costs occur during the day of the minimum load event, assuming, as we did, that the baseload unit can and does return to operation at the end of the minimum shut-down period (typically six to eight hours). Our comparative analyses all cover the period during which these increased costs occur, and therefore cover the appropriate time frame.

Q.

Mr. Slater claims if the Company followed the negative avoided cost calculation methodology suggested at pages 23-24 of Mr. Slater's direct testimony?

A. No. While I do not fully understand Mr. Slater's methodology, his scant

Would the negative avoided costs shown by Florida Power "vanish" as

No. While I do not fully understand Mr. Slater's methodology, his scant description seems to suggest that Florida Power should presume that the maximum curtailment amount was curtailed in every hour (off-peak and on-peak) for some period longer than the actual curtailment period and up to a week. Mr. Slater evidently would assume a week-long curtailment at the level needed to resolve the most severe one-hour minimum load problem.

Even if Florida Power had perfect knowledge up to a week before a minimum load condition, it would be draconian to curtail QFs at that level for the entire week and would deprive ratepayers of any benefits from QF purchases during all but the most severe minimum load hours. While we have not performed such an analysis, it is obvious that the replacement energy in the "curtailment case" during hours outside the most severe minimum load hours, including on-peak hours on the following day or days, would offset the start-up costs or increased energy costs due to cycling a baseload unit in the "no curtailment" case.

Q. Do you agree that Mr. Slater's method is appropriate for use in calculating negative avoided costs?

theoretically would have happened on the system and that negative avoided costs could be expected in the absence of actual curtailments.

Mr. Slater seems to be suggesting that we measure the impact of hypothetical curtailments that never occurred. It would be inappropriate and not in the interests of either QFs or ratepayers to implement actual curtailments as Mr. Slater suggests.

In fact, Mr. Slater's methodology could be extended even further. To carry his approach forward, Florida Power presumably could curtail the maximum amount of QF power needed to avoid any minimum load condition for a period up to several years until there is no longer any potential for a minimum load condition. In this application, every hour of the several-year period would have curtailment at the maximum level expected during the period. Obviously, this would be inappropriate.

2. Florida Power's Reference To "Unit Impact" Costs Of Cycling

- Q. OCL/Pasco do not agree that the type of costs which you and Mr. Lefton describe as "unit impact" costs are properly included in a calculation of negative avoided cost. Please respond.
- A. Mr. Slater concedes that "(i)n calculating utility avoided costs, it is wholly appropriate to capture all recognizable costs associated with the utility meeting the demands of its customers." (Slater, page 17). We have only recently received the results of Mr. Lefton's analysis and I

would say that we need to evaluate these cost impacts further before I would be comfortable using a specific "unit impact" number or set of numbers for system dispatch purposes or for avoided cost pricing. Nevertheless, I am confident that the Company is incurring the type of per-event cycling costs described by Mr. Lefton and that they should be "captured" as "recognizable costs associated with the utility meeting the demands of its customers."

Mr. Lefton has submitted separate rebuttal testimony answering several specific points raised by Mr. Slater. But, I want to emphasize one critical point. "Unit impact" costs, as measured by Mr. Lefton, represent the *incremental* cost of each additional cycling event. As such, the present value portion calculated on a per cycling event basis would be incurred whenever a Crystal River coal unit was forced to cycle off in order to continue a QF purchase. And, as such, these costs certainly do represent part of the negative avoided cost of each cycling scenario.

- Q. Do any of Mr. Slater's criticisms of Mr. Lefton's "unit impact" cost analysis alter your negative avoided cost conclusions?
- A. No. I think that Mr. Lefton effectively responds to the specific criticisms. In any case, though, even if the Commission were to question the magnitude of Mr. Lefton's measured cycling costs, my conclusions would be unaffected. This is because of two reasons. The first reason is that we have chosen to use Mr. Lefton's analysis in a

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very conservative way. While his study showed that a per-cycle cost may be greater than \$100,000 for a unit like Crystal River 2, we used a much lower figure in our negative avoided cost comparisons.

Q. What is your second reason?

A. The second reason is even more significant. My direct testimony establishes that Florida Power would realize negative avoided cost in minimum load conditions without curtailments, even without taking into account the effects of Mr. Lefton's "unit impact" costs. The start-up fuel and maintenance, and repla

cement power costs which Florida Power already captures in its economic dispatch procedures are of sufficient magnitude to produce a negative avoided cost in and of themselves. Mr. Slater has not offered any credible evidence to dispute this fact.

3. Alleged Unit Commit Errors

- Q. Mr. Slater claims in his direct testimony to have uncovered three "significant problems" with Florida Power's negative avoided cost calculations. (Slater, page 27). How do you respond to these contentions?
- A. Florida Power disagrees with the assertion that there were any "significant problems" which would negate the conclusions drawn from either its conceptual or its numeric analyses of negative avoided costs.

 Because there is a clear interrelationship between the three "problems"

listed in Mr. Slater's direct testimony and the somewhat more detailed assertions presented in his April 25th supplemental testimony, we are evaluating those allegations as part of a thorough review of the Unit Commit simulations. The results of that review will be presented before the hearing in this docket in a further piece of Company rebuttal testimony.

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For present purposes, I would, however, like to stress that it is important to keep in mind what the Unit Commit simulations are - and what they are not. Before a minimum load curtailment event, we must anticipate the levels of available resources and customer demands. The Company has considerable experience making these projections, but this is not an exact science, particularly when we must also predict the operational responses of the QF power suppliers. What I have shown is that whenever the minimum load conditions would cause the Company to cycle a baseload unit, we can be certain that the Company, as a result, would incur net increased operating costs, or a negative avoided cost. As contemplated by the FERC rules and this Commission's rules, the Curtailment Plan lets the QFs know this information in advance of the event so that we can avoid this very condition from actually occurring.

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The after-the-fact Unit Commit simulations which we ran are not, and could not be, an exact measurement of the Company's negative avoided costs. Furthermore, they should not be used to discredit the planning

and operational decisions that were made before a curtailment (e.g., the specific curtailment amounts which allowed us to prevent the negative avoided cost). This is because the Unit Commit runs represent an after-the-fact reconstruction to illustrate how the system reasonably might have responded if the actual curtailments had not occurred. The after-the-fact "what-if" simulations are based on different information than what we knew before-the-fact. For example, the actual curtailments had to be based upon projected loads and resources. However, these Unit Commit simulations reflect actual loads. Instead of projected QF deliveries, they reflect the actual curtailments that were made.

In my estimation, no such after-the-fact Unit Commit simulations would exactly corroborate planning decisions that were made before the event. Nor would they exactly measure the cost differential between operating scenarios with and without curtailment. But our simulations were very conservative and more likely understate than overstate the magnitude of any negative avoided costs. For instance, they do not capture all of the potential "unit impact" costs of cycling and they assume optimal start-ups, ramp rates and other system responses. In practice, start-ups often take longer (and incur more costs) than we anticipate, QFs may not respond exactly as instructed by the Plan, and numerous other conditions could be less than optimal. The Unit Commit runs help to illustrate my point that it is intuitively apparent before the minimum load condition that the unit cycling scenario would produce negative avoided costs and that the curtailments are justified under the circumstances

 described in the Plan. The Unit Commit runs are not intended to prove after-the-fact the exact magnitude of the negative avoided cost that the Company was able to prevent by making the curtailment decision.

C. The Curtailment Plan Is Not Unfair To QFs Or Any Particular QF

- Q. Mr. Yott claims that the Curtailment Plan is unfair and discriminatory against OCL. (Yott, page 5). Is it true that OCL is treated unfairly under the Plan when it comes to output reductions during minimum load periods.
- A. No. Probably the best evidence that the Curtailment Plan includes a reasonable set of curtailment priorities and treats all QFs fairly is the fact that OCL is the only QF out of 22 affected QFs who has filed testimony complaining that they are unfair. Even Pasco is not named as a co-sponsor of the Yott testimony, as it is with respect to the Shanker and Slater testimony. Moreover, a number of other QFs who have agreed to voluntary output arrangements affirmatively support the Plan's curtailment priorities. These QFs recognize that all of Florida Power's QF suppliers are not similarly situated and that the curtailment groupings used in the Plan fairly reflect these differences in circumstances.

As Mr. Dolan confirms, all of our QF suppliers including OCL have been given numerous opportunities to be included in the first priority curtailment category (Group A).

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- I do not see how the Plan possibly could be said to disadvantage or unfairly treat QFs as a class of wholesale power supplier. I say this because the Pian in fact gives a superior curtailment priority to QF suppliers than it does to the Company's own generating equipment and its avoidable power purchases from other electric utility companies. Before curtailing any QF under Rule 17-25.086, the Plan requires Florida Power's system operating personnel to (a) curtail purchases from Tampa Electric and the Southern Companies as much as possible (as noted earlier, we have gone the extra mile to negotiate even greater curtailment capability with Southern since filing the Plan); (b) shut off its own intermediate and peaking units and reduce baseload units to minimum acceptable operating levels; and (c) shut down its own cogeneration plant entirely if operating conditions permit. The Company is asking QFs to participate in the minimum load solution through involuntary curtailments only after all other generating resources have been substantially curtailed.
- Q. Please explain why Florida Power does not consider the Group A, B and C classification of QFs for curtailment purposes to be unreasonable or unfair.
- A. Placing the QF suppliers into one of the three curtailment categories properly recognizes that all QFs are not similarly situated in terms of the product that they are making available to the Company or the costs that they allow the Company to avoid. One major distinction applies to as-

available energy supplies which are consolidated into Curtailment Group C. There has been no real quarrel by any party with the notion that asavailable energy supplies are inferior to firm power supplies in terms of dependability and cost avoidance. As-available energy purchases are not assured in terms of amount, time or certainty of delivery. This is true whether the as-available energy is purchased separately or as an amount above and beyond the committed capacity under a firm QF contract. Because as-available energy offers the least value to the system, it is reasonable to interrupt those purchases before a firm power purchase is interrupted. Therefore, the Group C as-available purchases are the first purchases to be curtailed under the Plan.

There is just as real and material a distinction between the Group A and B QFs because none of the Group B QFs has agreed in writing to provide firm output reduction commitments to help avoid or mitigate the system's minimum load problems. Group A QFs, in contrast, have agreed to provide the system with a significant benefit by clarifying or enlarging the output reduction arrangements under their existing contracts to establish predictable voluntary output reductions that the Company can count on. Florida Power believes that it is both necessary and appropriate to recognize this difference in quality of service during minimum load hours in the distinction drawn between the Group A and B curtailment priorities. We have also agreed to do this as a part of the voluntary output reduction arrangements negotiated with the Group A suppliers. As noted in Mr. Dolan's direct testimony (at pages 24-25),

the Company gave the Group A QFs assurance that it would seek to obtain maximum curtailment from other QFs before asking the Group A QFs for more than their voluntary output reductions. We believe that the 50 percent curtailment cap applied initially to the Group B QFs (which has not been contested by any party) is consistent with this maximum curtailment commitment without being overreaching or unreasonable.

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 Q. Do you think it would be fair to ignore the factual distinctions between the Group A, B and C QF suppliers?

A. No. I would have a hard time justifying a plan that ignored the voluntary contribution made by the Group A QFs or that treated as-available energy as if it were firm. These differences cannot be ignored if we are to be fair to all QFs.

OCL, in effect, claims a preference rather than fair or comparable treatment. Because it claims to be voluntarily (at its sole option) offering some possible output reductions on a short-term basis during minimum load periods, it wishes to be grouped together with other QFs who have been willing to put specific and ongoing output reduction commitments formally in writing. The fact remains that Florida Power cannot depend upon any output reduction from OCL to manage the minimum load problem as it can from those QFs who are included in Group A because of their firm written commitments. In effect, just as it makes sense to distinguish between (1) as-available energy (which is

not committed) and (2) firm energy (which is committed), it also makes sense to distinguish between (3) optional QF output reductions (which are not committed) and (4) written QF commitments to reduce output (which are committed).

- Q. is it your understanding that treating differently situated QFs in a way that accounts for these differences is consistent with the PURPA rules?
- A. Yes. Under the PURPA rules, it seems to me that different treatment of QF suppliers who are not similarly situated is perfectly appropriate. For example, there always have been distinctions between the treatment of as-available energy versus firm energy. Similarly, in the realm of QF pricing, the rules allow consideration of numerous case-specific factors such as the dependability of a QF's power supply and the extent to which the QF enables the utility to avoid capacity and/or energy costs.

It has even been pointed out to me that in 1988, the FERC explained that PURPA doesn't appear to prohibit rate discrimination among individual QFs, as opposed to rate discrimination against QFs as a class of power suppliers. The FERC also explained that differences in circumstances, in any event, will frequently justify differences in treatment of particular QFs. I find the FERC's observations instructive:

No court cases have definitively construed the meaning of discrimination in the context of rates for purchases of power from QFs under section 210, but the most reasonable reading of PURPA precludes discrimination against QFs as a class; it does not require that all QFs be treated the same. The Commission's current rules allow for different rates for QFs. The rules recognize that avoided cost will tend to decline as more

 QFs enter the market. The Commission's current rules also set the price at full avoided cost, but also provide for negotiated rates that fall below full avoided cost. Certainly, negotiations do not result in the same rate for all QFs. QFs offering different services or different prices are not similarly situated. Thus, differentiation among QFs is not necessarily discriminatory.

(See Regulations Governing Bidding Programs, IV FERC Stats & Regs ¶ 32,455 at 32,027 (1988) reproduced in part in Exhibit (HIS-9)). Clearly the distinctions between the Group A, B and C QFs in Florida Power's Curtailment Plan are justified by differences in factual circumstances. I believe that making these distinctions is fair and that ignoring them as proposed by Mr. Yott would be unfair.

- Q. Is Florida Power still willing to treat OCL as a Group A QF if it is willing to enter into a written arrangement providing ongoing and assured output reductions comparable to those agreed to by the other Group A suppliers?
- A. We would be pleased to sign up all Group B QFs to mutually acceptable written output reduction plans because this would simplify the burden of dealing with the minimum load problem. Any Group B QF, including OCL, is encouraged to do so.
- Q. Mr. Yott would like to see the Curtailment Plan include a "banking" arrangement which would give credit to QFs when they overcurtail on one occasion so that they can avoid curtailment on another occasion. Likewise, his proposal would debit QFs who underperform. (Yott, pages 10-12). First, is it correct, as Mr. Yott suggests, that Florida Power is

We are certainly attempting not to do so. As explained in my direct

testimony (at pages 50-51), we recognize that QFs may occasionally experience temporary, uncontrollable operating conditions that will prevent their strict compliance with the Curtailment Plan. Just as we would expect to accommodate those circumstances at our own plants, we intend to accommodate them at the QF plants. Toward that end, Mr. Charles Harper has issued instructions to system operating personnel confirming that they should document and accommodate QF compliance difficulties as the Company would do for its own units. Mr. Harper's instructions are set forth in a memorandum which I am including as my Exhibit (HIS-10).

Q. Would the banking arrangement proposed by Mr. Yott cause Florida Power any operational problems?

A. I believe it would. When the system operators are trying to rapidly balance generation and loads, they need to have good information as to how much curtailment they can expect from each QF as well as access to effective procedures for implementing these curtailments. If any of 22 suppliers had the option of not fully curtailing at the last minute, then the system operating personnel could not reliably and cost effectively balance the generation and load levels. In addition, the operating function would become substantially more complicated. As

I have already testified, the Curtailment Plan is intended to promote predictability, ease of implementation, and effective results. I can appreciate OCL's desire to get some credit for over-compliance, but any under-compliance is highly problematic in that it (1) creates additional operating risk and (2) shifts the curtailment burden on that occasion to other QFs or to Florida Power. Even an assurance that someone will pay back tomorrow an amount which he under-contributes today does nothing to cure the minimum load problem today -- all it can do is ensure that today's problem will be worse.

- Q. Is there a better way for OCL to realize some credit if it chooses to overcomply rather than running its plant at a reduced output?
- A. This is exactly the circumstance mentioned in footnote 6 of the Curtailment Plan at page 29. If OCL wants to provide more curtailment than the system requires, I would encourage it to work with other similarly situated QFs to arrive at a sharing arrangement that may meet their mutual needs. If the system operators *know* in advance that on one occasion 80 MW of reduction is assured from OCL and on the next occasion 80 MW is assured from "X" QF, then generally speaking, the system could be run as effectively as if each of these QFs provided 40 MW of reductions on each of the two occasions. I believe that this kind of arrangement allows individual QFs to satisfy their individual operating needs without involving unwilling QFs, confusing the curtailment process or setting up Florida Power as a curtailment compliance policeman.

Let me just add that OCL seems to be the only QF complaining of a possible non-compliance problem, and Mr. Yott certainly hasn't documented any such problem. OCL seems to believe that it would be a regular over-contributor to a curtailment bank, but it has given no reason to believe that there are other QFs who would regularly undercontribute and thereby balance out the bank account. In fact, from our experience to date, I do not share OCL's belief that there will be persistent under-curtailment incidents. We are certainly expecting ongoing compliance and I would hesitate to develop a mechanism that encourages under-compliance for any reason.

If I am correct that under-compliance is not a material problem, and if OCL would like to balance out its *own* occasional over-compliance with a predictable methodology for under-curtailing on other occurrences, then this is exactly the kind of issue that might be resolved amicably by means of a voluntary output reduction plan such as we have repeatedly encouraged QFs to discuss.

- Q. Does this conclude your rebuttal testimony Mr. Southwick?
- A. Yes.

EXFIBITS



Florida Power

February 27, 1995

Mr. James Tulloss Southern Company Services, Inc. Post Office Box 2625 Birmingham, Alabama 35202

Subject: Purchase of UPS energy during minimum load emergencies

Dear Jim:

In the fall of 1994, Florida Power Corporation began to experience difficulty matching its load and power supply during periods of light loading on its system. These periods typically occur in the spring, fall and warm winter periods. The major contributor to this situation is approximately 900 MW of cogeneration capacity that has been added to the FPC system which has very limited dispatch capability. In addition, FPC contracted in 1988 for a 16 year purchase of 400 MW of UPS capacity from the Southern Companies with a Minimum Operation Capacity Obligation (MOCO) of 168 MW, which Southern can require from time to time depending on certain Southern system conditions. Because of this high level of committed off peak capacity and FPC's continuous obligation to match generation to load, FPC has been forced to develop a generation curtailment plan for the cogeneration capacity on its system. This plan was filed with the Florida Public Service Commission in October 1994.

To further mitigate the minimum load problem, FPC has been exploring options with Southern that would allow FPC to return the MOCO energy in a manner that would not harm either companies' customers. Our discussions resulted in a verbal agreement on February 21, 1995 that allows FPC to sell MOCO energy to Southern at Southern's system marginal cost as follows:

- 1. When the FPC generation dispatcher anticipates that the minimum generation will exceed the forecasted minimum load and anticipates that a Level 3 Minimum Load Warning will be called under the Generation Curtailment Plan for Minimum Load Conditions.
- If Southern's situation is such that the MOCO is being invoked.

FPSC Docket No. 941101-EQ FPC Witness: SOUTHWICK Exhibit No. _____, (HIS-5) Page 2 of 2

- 3. The FPC generation dispatcher will contact Southern to determine Southern's system marginal energy cost (and its ability to purchase the energy).
 - If FPC's system marginal energy cost is at or below Southern's system marginal energy cost, Southern will purchase from FPC energy equal to the MOCO energy.
 - 5. These sales will initially take place under Service Schedule C as specified in the Interchange Contract between FPC and Southern until the companies can complete a new opportunity sales schedule for the Interchange Contract.

I am pleased with this arrangement. As you know, we utilized it during the morning of February 27, 1995, and it worked well. I thank you and your colleagues at Southern in helping make this happen.

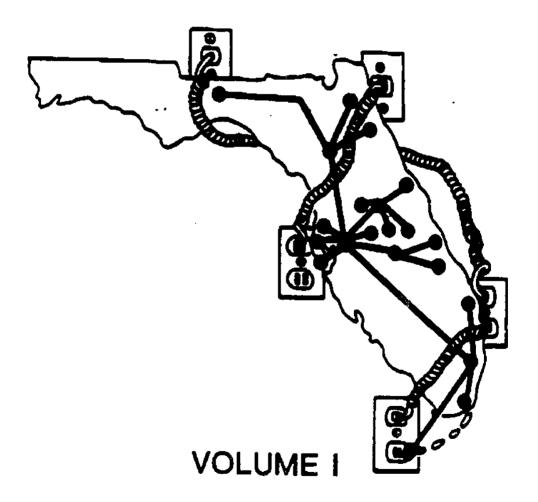
Sincerely,

H. I. Southwick

FPSC Docket No. 941101-EQ FPC Witness: SOUTHWICK Exhibit No. _____, (HIS-6) Page 1 of 6

FLORIDA ELECTRIC POWER COORDINATING GROUP, INC.

FLORIDA ENERGY BROKER SYSTEM HANDBOOK



JANUARY 17, 1990

IV. Energy Broker Guidelines

1. Contracts

a. Economy Energy Transactions

It is the responsibility of each participant to arrange for contracts with all other participants for the transaction of economy energy. In order to maximize the economic efficiency of the broker system it is strongly recommended that every participant have the contractural ability to transact economy energy with every other Broker participant.

b. Wheeling Transactions

It is the responsibility of the participant requiring wheeling to arrange for the transmission service of a third party.

c. Billing for Economy Energy

Billing for Economy Energy will be in accordance with the bilateral contracts between participants.

2. Matching Guidelines

a. High-Low Matching

Economy energy interchange is based on the concept that various generating entities from time to time will have different costs for the production of energy. The seller can and is willing to produce energy at an incremental cost which is lower than the incremental cost (decremental value) that the buyer would incur by producing the same amount of energy. The underlying purpose of these guidelines is to establish consistency in the cost components included in the matching quotations used in the Energy Broker System and to generally describe those methods used to derive these costs.

It is not the intent of these guidelines to infringe on the obligations or rights associated with any existing bilateral or multilateral interchange agreements. The Energy Broker System is designed to facilitate the state-wide optimal hourly schedule of economic transactions considering each participant's bilateral agreements, each participant's hourly costs quote, existing economy interchange and transmission service agreements, a minimum spread criteria between incremental and decremental cost quote combinations, and any existing transmission system constraints.

FPSC Docket No. 941101-EQ FPC Witness: SOUTHWICK Exhibit No. _____, (HIS-6) Page 3 of 6

To test the minimum spread criteria, the buyer's decremental cost quote is adjusted with the buyer's share of wheeling and losses, if any, (costs/MWH) resulting in an "Adjusted Decremental Cost". The buyer's decremental cost quote is adjusted for the minimum spread criteria in recognition of the prevailing industry practice that buyers generally arrange for wheeling services.

By using a "High-to-Low" transaction matching routine (i.e., matching the highest decremental cost quote with the lowest incremental cost quote, considering all the above mentioned constraints and proceeding through all current hourly quotes) a schedule of proposed transactions will be produced that should maximize statewide savings available from hourly economy energy interchange transactions. The transaction price for each match will be as specified in the bilateral contracts between the matched Broker participants.

b. Minimum Matching Criteria

The Broker will not match any two quotes when the difference between the transaction price and the Adjusted Decremental Cost is less than five percent of the decremental cost. If the transaction price is less than twenty dollars per MWH the difference between the buyer's adjusted decremental cost and the transaction price must be at least one dollar per MWH.

This criteria recognizes that inaccuracies in the forecast of costs may be as high as five percent.

- c. Operation Requirements of the Energy Broker System Software
 - Each participant's incremental or decremental cost quotations should reflect the participant's incremental or decremental costs, and should meet the following criteria:
 - a) Each buyer's decremental cost quote for a certain block of energy must be lower than that of the preceding block of energy.
 - b) Each seller's incremental cost quote for a certain block of energy must be higher than that of the preceding sell block of energy.
 - c) With respect to each Broker participant's costs quotes for a particular hour, all decremental cost quotes must be lower than all incremental cost quotes.

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- Cost quotations should reflect the incremental cost at the tie line points of contiguous systems of that energy the participant is willing to sell or the decremental (or avoided) cost at the tie line points of contiguous systems of the energy the participant is willing to buy.
- Cost quotations should not include a cost component for third party (wheeling) costs.
- Economy Energy contracts (Schedule C) will be represented by entries for purchase and sale in the Energy Broker System's "Contracts, Wheeling, and Constraints File (CWCF)" for each bilateral contract a participant has in effect. No changes will be made in the CWCF file unless both parties and any involved wheeling parties have agreed to the changes in writing. This procedure does not apply to wheeling and loss values of the wheeling party. Such changes will be implemented in a timely manner upon notification by the wheeling party.

d. Costing Methodology of Economy Energy

- The transaction price (TP) for a particular interchange of economy energy in the Broker is based on bilateral agreements and on the fundamental concept that a participant will be able to reasonably foresee operational conditions for the upcoming hour, and therefore will satisfactorily project that participant's incremental expense (decremental value).
- The calculation of incremental and decremental cost quotes is based on the fundamental concept that the incremental cost components of those quotes shall be calculated using the same incremental costing data as that used by the participant in the economic dispatch of its generating units for that hour. Generally, bilateral contracts specify that all identifiable incremental cost components for a particular hourly transaction should be included in price quotations. These prices may include:
 - a) System incremental fuel cost (e.g., derived from composite incremental heat rate curves of all units' curve, times the incremental replacement cost of fuel.)
 - b) Incremental transmission cost.
 - c) Incremental operation and maintenance cost.
- 3) The particular method used to determine the incremental or decremental costs of making an economy energy transaction depends upon each participant's capabilities to simulate system conditions.

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If a participant has an on-line energy management system (computer) that is capable of determining the incremental or decremental costs of an economy energy transaction, then these costs should be used for the incremental or decremental cost quotes. Where a participant does not have an on-line computer, an off-line type simulation may be used to supply dispatching personnel with cost information versus system load levels where a set of general system conditions are assumed.

The resources of the seller (or buyer) shall be energy from its owned generating units, from energy purchased from specific generating units (unit power purchases), or from energy purchased at other than average system cost.

Energy purchased at average system cost may be a resource of the seller and may be eligible for sale only when the cost of the energy purchased by the seller is equal to or greater than the supplying entity's incremental cost at the time of the Broker transaction.

Energy purchased at average system cost may be a resource of the buyer and may only be considered as an avoided (decremental) cost when the cost of the energy purchased by the buyer is equal to or less than the supplying entity's incremental cost at the time of the Broker transaction.

Participants in the Broker are encouraged to make all excess economic generation, including energy obligated under firm capacity schedules, available through the Energy Broker System.

It is recognized that under most bilateral contracts firm capacity schedules have priority over economy transactions. If the buyer of a firm capacity schedule does not have a specified schedule prior to 30 minutes past the hour, then the seller should offer it on the Broker. If an economy transaction is made, it should be made available to the firm capacity schedule buyer as expeditiously as operating conditions will permit (not exceeding 30 minutes) when the firm capacity schedule buyer calls for it. If the buyer has made a specific request for firm capacity schedule energy prior to 30 minutes past the hour, then it becomes a resource of the buyer.

5) Costing the Quoted Energy for Limited Fuel

It is recognized that, at times, a participant may be generating energy produced totally by burning a limited fuel (i.e., a limited fuel is a fuel for which the availability is restricted and limited beyond the control

FPSC Docket No. 941101-EQ FPC Witness: SOUTHWICK Exhibit No. _____, (HIS-6) Page 6 of 6

of the generating party and for which the supply is insufficient to meet the participant's total requirements), and that for economic reasons the participant may wish to retain the use of that limited fuel to meet the load of its own system.

During these occasions a participant may enter an incremental or decremental cost quote based upon the incremental or decremental cost of a nonlimited fuel with the understanding that within the following 30-day period the participant will generate an equivalent amount of energy with the quoted fuel.

6) Third Party Costs

The Energy Broker System software inherently considers all applicable third party (wheeling) costs for each possible transaction. The third party costs include third-party transmission service charges and energy losses (non-firm energy) as allocated according to the contractual agreement between buyer and seller.

3. Scheduling Economy Interchange

All Energy Broker System economy interchanges shall be scheduled to start on the hour, and the schedule ramp shall be agreed upon by seller and buyer. The Broker schedule displays the MWH scheduled to be transacted each hour.

4. Confirmation of Proposed Transactions

It is the responsibility of each participant to confirm it's proposed transactions with other participants. Two methods currently employed are: 1) Confirm the proposed transaction on the state "Hot Line" telephone, or 2) Automatically accept the proposed Schedule as "Confirmed" unless either participant communicates otherwise.

5. Indemnification Agreement

Each Broker participant shall sign a hold harmless agreement which eliminates liability of FCG or any participating party for real or potential losses as the result of misoperation or unavailability of the Energy Broker System. An example of such agreement is shown in the Appendix.

CONTRACT FOR PURCHASES AND SALES OF SCHEDULED POWER AND ENERGY BETWEEN FLORIDA POWER & LIGHT COMPANY AND FLORIDA POWER CORPORATION

THIS CONTRACT is made and entered into this 12 day of October 1994 by and between FLORIDA POWER & LIGHT COMPANY, a corporation organized and existing under the laws of the State of Florida, herein referred to as "FFL" and FLORIDA POWER CORPORATION, a corporation organized and existing under the laws of the State of Florida, herein referred to as "CORPORATION".

WITNESSETH:

WHEREAS, FPL and CORPORATION (each individually identified bereinafter as a "Party" and both collectively called hereinafter the "Parties") own and operate electric generating and transmission systems within the State of Florida and maintain interconnections with each other; and

WHEREAS, FPL and CORPORATION are parties to the Contract for Interchange Service between Florida Power & Light Company and Florida Power Corporation dated July 8, 1977, as amended (the "Interchange Contract") which provides terms and conditions for the interchange of electric power and energy between the Parties; and WHEREAS, CORPORATION desires, from time to time, to sell electric power and energy to FPL or purchase electric power and energy from FPL as set forth herein; and WHEREAS, FPL desires, from time to time, to sell electric power and energy to CORPORATION or purchase electric power and energy from CORPORATION as set forth herein; and

FPSC Docket No. 941101-EQ FPC Witness: SOUTHWICK Exhibit No. _____, (HIS-7)

Page 2 of 20

WHEREAS, each Party anticipates having Scheduled Power and Energy available to

supply electric power and energy under this CONTRACT and desires to establish the

terms, conditions, rights, and obligations with respect to the purchases and sale of

Scheduled Power and Energy; and

NOW, THEREFORE, in consideration of the foregoing premises and of the mutual

benefits to be obtained from the covenants herein, the Parties do hereby agree as follows:

ARTICLE I

DEFINITIONS

- Section 1.1 Buyer: Shall mean the Party who desires to purchase Scheduled Power and
- 20 Energy under the terms of this CONTRACT.
- Section 1.2 Electric Resources: Shall mean any electric generating capacity available
- to a Party and may include electric capacity purchased from another utility.
- Section 1.3 The Federal Power Act: Shall mean the Federal Power Act, 16 U.S.C.
- 14 §§ 792 et seq., as it is now in effect or may be amended in the future, or any successor
- 15 thereto.

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- Section 1.4 FFRC: Shall mean the Federal Energy Regulatory Commission or any
- successor having comparable responsibilities.
- Section 1.5 Force Maleure: Shall be as defined in Section 6.1 of this CONTRACT.
- Section 1.6 Scheduled Power and Energy: Shall mean that amount of electric power
- and/or energy that the Seller agrees to sell and the Buyer agrees to purchase pursuant to
- a transaction entered into under this CONTRACT.

Section 1.7 - Seller: Shall mean the Party who desires to sell Scheduled Power and 1 Energy under the terms of this CONTRACT. 2 Section 1.8 - Prudent Utility Practice: Shall mean any of the practices, methods and 3 acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise 5 of reasonable judgment in light of the facts known at the time the decision was made. could have been expected to accomplish the desired result at a reasonable cost consistent 7 with reliability, safety and expedition. Prudent Utility Practice is not intended to be limited to the optimum practice. 9 Section 1.9 - Interchange Contract: Shall mean the Contract for Interchange Service 10 between Florida Power & Light Company and Florida Power Corporation dated July 8, 11 1977, as amended from time to time. 12 Section 1.10 - Economy Energy: Shall mean non-firm energy which the seller can 13 produce or purchase and deliver to the buyer at an incremental cost which is lower than 14

ARTICLE II

the incremental cost the buyer would otherwise incur.

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TERM OF CONTRACT

Section 2.1 - Term: The term of this CONTRACT shall commence on the 12th day of 19th o

contrary, the Parties' obligations under Section 7.1 shall commence on the date of execution of this CONTRACT.

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ARTICLE III

SCHEDULED POWER AND ENERGY SERVICE

Section 3.1 - Scheduled Power and Energy Services: Transactions under this CONTRACT shall be as agreed to by the Parties' Operating Representatives on a case by case basis. Each Party shall be the sole judge of its ability to supply Scheduled Power and Energy, and all transactions hereunder shall be entirely voluntary. A Party may furnish Scheduled Power and Energy from any available Electric Resources it chooses for resale to the other Party, including purchases from a system or systems not a Party to this CONTRACT. Transactions under this CONTRACT shall include but not be limited to purchases and sales of Economy Energy. Section 3.2 - Scheduled Power and Energy Service Transactions: In the event a Party requests the other Party to provide Scheduled Power and Energy and the other Party determines that such service is available, the Parties' Operating Representatives shall agree on the specifics for each such transaction. The transaction shall be for a period of not less than two hours nor more than one year. Section 3.3 - Payment: The Buyer shall pay the Seller the amount agreed to by the Parties (expressed in \$ per MWh) for the Scheduled Power and Energy transaction, which shall not be less than the Seller's Incremental Bnergy Cost under Section 3.4 of this CONTRACT and which shall not exceed the sum of (a) and (b) below:

(a) One hundred and ten percent (110%) of the Seiler's Incremental Energy

Cost, as calculated pursuant to Section 3.4. In the event and to the extent the

Seller's Incremental Energy Cost under Section 3.4 of this CONTRACT represents the cost of purchased power, the ten percent (10%) adder that is applied to such purchased power expense shall not recover more than 1

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- For FPL as Seller: The Hourly Charge agreed to by the Parties for the Scheduled Power and Energy, not to exceed the maximum Hourly Charge specified in Appendix A, subject to the limitations of Section 3.5(1). Notwithstanding the foregoing, where the Seller enters into a power purchase transaction in order to resell such power under a Scheduled Power and Energy transaction, and where the Seller's Incremental Energy Cost under Section 3.4 of this CONTRACT represents the cost of such purchased power, the maximum Hourly Charge under Section 3.3(b)(1) for such power shall be as provided in Appendix B. Sales of power purchased for the Seller's reliability purposes or for the Seller's economy purposes where the Seller stands by to supply power from its own resources are not subject to the preceding sentence.
- Parties for the Scheduled Power and Energy, not to exceed the maximum Hourly Charge specified in Appendix C, subject to the limitations of Section 3.5(2). Notwithstanding the foregoing, where the Seller enters into a power purchase transaction in order to resell such power under a Scheduled Power and Energy transaction, and where the Seller's Incremental Energy Cost under Section 3.4 of this CONTRACT represents the cost of such purchased power, the maximum Hourly Charge under

Section 3.3(b)(2) for such power shall be as provided in <u>Appendix D</u>. Sales of power purchased for the Seller's reliability purposes or for the Seller's economy purposes where the Seller stands by to supply power from its own resources are not subject to the preceding sentence.

Section 3.4 - Seller's Incremental Energy Cost: The Seller's Incremental Energy Cost shall be the Seller's incremental fuel cost for load dispatching in effect at the time of the transaction as determined by the Seller, which calculation shall include any start-up costs incurred in the event a unit needs to be started to supply Scheduled Power and Energy and the cost of the incremental system transmission losses attributable to the Scheduled Power and Energy transaction. The order of priority used to determine the Seller's Incremental Energy Cost will be such that the Scheduled Power and Energy provided under this CONTRACT will be the increment immediately above (i.e., will be deemed to be provided after): (1) the Seller's retail and wholesale load requirements, including spinning reserves; (2) sales of firm capacity and energy; and (3) sales under other prior commitments into which the Seller may have entered.

Section 3.5 - Charges Under Section 3.3(b): The Charges under Section 3.3(b) are subject to the following caps:

(1) The maximum charge under Section 3.3(b)(i) during any day shall not exceed the product of (i) the highest amount (in MW) of service provided by the Seller under this CONTRACT during any hour of the day and (ii) the product of (i) the maximum Hourly Charge specified in Appendix A or Appendix B, as applicable, and (2) sixteen hours. The maximum charge under Section 3.3(b)(1) during any week shall not exceed the product of (i)

the highest amount (in MW) of service provided by the Seller under this CONTRACT during any hour of the week and (ii) the product of (1) the maximum Hourly Charge specified in Appendix A or Appendix B, as applicable, and (2) eighty hours.

(2)

The maximum charge under Section 3.3(b)(2) during any day shall not exceed the product of (i) the highest amount (in MW) of service provided by the Seller under this CONTRACT during any hour of the day and (ii) the product of (1) the maximum Hourly Charge specified in Appendix C or Appendix D, as applicable, and (2) sixteen hours. The maximum charge under Section 3.3(b)(2) during any week shall not exceed the product of (i) the highest amount (in MW) of service provided by the Seller under this CONTRACT during any hour of the week and (ii) the product of (1) the maximum Hourly Charge specified in Appendix C or Appendix D, as applicable, and (2) eighty hours.

ARTICLE IV

CURTAILMENTS AND INTERRUPTIONS

Section 4.1 - Interruptions: The Seller's right to interrupt a transaction shall be as agreed to by the Parties' Operating Representatives. In the event and to the extent a Scheduled Power and Energy transaction hereunder is interrupted by the Seller in accordance with the commitment agreed to by the Parties' Operating Representatives for the specific transaction, the Buyer shall be obligated to make payment only for the amount of Scheduled Power and Energy actually delivered up to the time of such interruption.

The Buyer's payment obligation will resume if and when the Parties resume the transaction.

Section 4.2 - Curtailments: The Seller's right to curtail a transaction shall be as agreed to by the Parties' Operating Representatives. In the event a Scheduled Power and Energy transaction is curtailed by the Seller in accordance with the commitment agreed to by the Parties' Operating Representatives for the specific transaction, the Parties may agree to continue the transaction at the curtailed level. During such period of curtailment, the purchasing Party shall be obligated to make payment only for the curtailed level of the Scheduled Power and Energy transaction.

Section 4.3 - Resumptions: In those instances in which a transaction has been interrupted or curtailed, the Parties may either agree on the specifics to reschedule and resume the Scheduled Power and Energy transaction, or terminate the remainder of the Scheduled Power and Energy transaction. In the event the Parties agree to resume the Scheduled Power and Energy transaction, the Buyer's payment obligation shall be based on the agreed upon level and amount of Scheduled Power and Energy.

ARTICLE V

BILLING AND PAYMENT

Section 5.1 - Presentation and Payment: Promptly after the first of each month, each Party shall submit a billing statement and invoice for the sales transactions and the respective amounts due under the terms of this CONTRACT for the preceding calendar month except those months in which no amounts are due. All such invoices shall be due and payable within ten days from the date of mailing (as determined by postmark). Invoices not paid within ten days from the date of mailing shall bear interest at the rate

provided for refunds under the FERC's regulations (18 CFR Section 35.19a) or any 1 successor thereto. All remittances for payment shall be made by immediately available 2 funds, unless otherwise agreed. Payments due hereunder shall not be subject to any 3 reduction by offset or otherwise. 4 Section 5.2 - Disputed Bill: In case any portion of any bill is in bona fide dispute, the 5 full amount of the bill (including the amount in dispute) shall nevertheless be due and 6 payable in accordance with Section 5.1. Payments made and designated "Paid Under 7 Protest" shall be accompanied by the reasons therefore. A Party's payment under protest 8 of the disputed portion of a bill shall not affect any legal or equitable rights it may have 9 to challenge the disputed portion of the bill. Upon final determination of the correct bill 10 amount, any necessary refunds shall be paid within fifteen days, together with interest 11 from the date of payment of the bill, calculated at the rate provided for refunds under the 12 FERC's regulations (18 C.F.R Section 35.19a) or any successor thereto. 13 Section 5.3 - Challenges to Bills: Either Party may challenge the correctness of any bill 14 or billing adjustment pursuant to this CONTRACT no later than 12 months after the date 15 payment of such bill or billing adjustment is due. If a Party does not challenge the 16 correctness of a bill or billing adjustment within such 12 months period, such bill or 17 billing adjustment shall be binding upon that Party and shall not be subject to challenge. 18 Any such challenge must be in writing. Where it is determined as a result of such 19 challenge that an adjustment to a bill or billing adjustment is appropriate, such adjustment 20 shall include interest accrued at the rate provided for refunds under the FERC's 21 regulations (18 C.F.R. Section 35.19a) or any successor thereto and shall be provided in 22 the month following such determination. 23

ARTICLE VI

FORCE MAJEURE AND INDEMNIFICATION

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Section 6.1 - Force Majeure: In the event that either of the Parties should be delayed in, or prevented from, performing or carrying out any of the agreements, covenants and obligations made by and imposed upon said Party by this CONTRACT by reason of or through any cause reasonably beyond its control and not attributable to its neglect including strike, stoppage in labor, failure of contractors or suppliers of materials, riot, fire, flood, ice, invasion, civil war, commotion, insurrection, military or usurped power, order of any court granted in any bona fide adverse legal proceeding or action, order of any civil or military authority (either de facto or de jure), explosion, act of God or the public enemies, failure or malfunction of system facilities, or unscheduled outage of generating units or transmission facilities; then and in such case or cases, both Parties shall be relieved of performance under this CONTRACT and shall not be liable to the other Party for or on account of any loss, damage, injury, or expense (including consequential damages and cost of replacement power) resulting from or arising out of such delay or prevention from performing; provided, however, that the Party suffering such delay or prevention shall use due and, in its judgment, practicable diligence to remove the cause or causes thereof; and provided, further, that neither Party shall be required by the foregoing provisions to settle a strike except when, according to its own best judgment, such a settlement seems advisable; and provided further, that nothing in this Section 6.1 shall excuse the payment obligations incurred under this CONTRACT. Section 6.2 - Responsibility and Indemnifications: In the case of loss, damage or injury (including death) of any person(s) or property, occurring on a Party's own system, that Party shall indemnify, save harmless and defend the other Party hereto (including the other Party's parent, subsidiaries, affiliates and their respective officers, directors, agents and employees) against claims, demands, costs or expenses in any manner directly or indirectly connected with performance of duties under this CONTRACT, whether or not due to or caused by negligence of the other Party (but not when caused by gross negligence or willful misconduct of the other Party) when such injury or damage occurs on its system. Each Party further agrees to waive all rights against and to release the other Party from any liability which the first Party may incur for payment, if any, of benefits to its own employees under any statutory obligation. Section 6.3 - Consequential Damages: Notwithstanding any other provision of this CONTRACT, neither Party shall be liable to the other for consequential damages, which shall include, but not be limited to, loss of profits or revenues and costs of purchased or replacement power, under any claims arising under this CONTRACT. Notwithstanding the foregoing, nothing in this Section 6.3 shall be interpreted as affecting Section 6.2. Section 6.4 - Liability for Interruption or Curtailment: Unless otherwise agreed to by the Parties' Operating Representatives, each Party hereby releases the other Party from any liability the first Party may incur as a result of the interruption or curtailment of

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ARTICLE VII

Scheduled Power and Energy service under this CONTRACT.

MISCELLANEOUS

Section 7.1 - Regulatory Approval: The provisions of this CONTRACT are subject to the regulatory authority of the FERC. Upon execution, FPL will file this CONTRACT with the FERC and CORPORATION shall support the filing and approval of this CONTRACT without modification or condition. The Parties agree that all fees assessed

by the FERC as they relate to the filing of the Agreement shall be shared equally by the Parties. CORPORATION shall cooperate with FPL and provide information reasonably required by FPL to comply with the applicable filing requirements and the Parties shall not lend support to any party who opposes this CONTRACT before the FERC. In the event this CONTRACT is changed or modified by any regulatory agency or authority, either Party, if adversely affected to a material extent, shall have the right to negotiate for the necessary relief to alleviate said adverse effects brought on by either the changes or modifications so imposed. If the Parties are unable to obtain the necessary relief after a reasonable period of negotiations (not to exceed sixty days), either Party shall have the right to terminate this CONTRACT on fifteen days written notice to the other Party. Nothing contained in this CONTRACT shall be construed as affecting in any way the right of either Party to unilaterally make application to the FERC for a change in rates, terms, and conditions of this CONTRACT under Sections 205 and 206 of the Federal Power Act and the regulations thereunder. Section 7.2 - Waivers: Any waiver at any time by any Party of its rights with respect to the other Party or with respect to any matter arising in connection with this CONTRACT shall not be considered a waiver with respect to any other prior or subsequent default or matter. Section 7.3 - Assignment: This CONTRACT shall inure to the benefit of, and shall be binding upon, the Parties hereto and their respective successors and assigns, provided that this CONTRACT shall not be assignable or transferable in whole or in part by either Party without the written consent of the other Party, which consent(s) shall not be unreasonably withheld, except that such written consent(s) shall not be required (a) in the case of an assignment or transfer to a successor in the operation of the assignor's or

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	Page 13 of 20
1	transferor's properties by reason of a merger, consolidation, sale or foreclosure, where
2	substantially all such properties are acquired by such successor, or (b) in the case of an
3	assignment or transfer of all or part of the assignor's or transferor's properties or interests
4	to a wholly-owned subsidiary of the assignor or transferor or to another company in the
5	same holding company as the assignor or transferor.
6	Section 7.4 - Notices: Any notice, demand, or request required or authorized by this
7	CONTRACT shall be deemed properly given if mailed postage prepaid to, in the case of
	FPL:
9	Florida Power & Light Company
LO	P. O. Box 029100
11	Miami, Florida 33102
12	Attention: Manager of Inter-Utility Markets
13	and in the case of CORPORATION:
14	Florida Power Corporation
15	P.O. Box 14042 BC 37
16	St. Petersburg, FL. 33733
	Attention: Director, Energy Control
17	or to such other person as may be designated in writing from time to time by the recipient
19	Party.
20	Section 7.5 - Governing Agreement: This CONTRACT shall govern the provision of
21	Scheduled Power and Energy as defined herein. The following provisions of the
22	Interchange Contract are incorporated and made a part of this CONTRACT and shall
23	govern the coordination of interconnected operations between the systems of the Parties:
24	Article II - Interconnections; Article III - Operating Committee; Article IV - Interchange
25	Service (Sections 4.2 and 4.3); Article V - Service Conditions; Article VI - Metering
26	Provisions. In the event any of the terms and conditions of the Interchange Contract are

FPSC Docket No. 941101-EQ FPC Witness: SOUTHWICK ___, (HIS-7) Exhibit No.

Page 14 of 20

inconsistent with the terms and conditions of this CONTRACT, this CONTRACT shall 1 govern with respect to Scheduled Power and Energy sales and purchases. 2 Section 7.6 - Governing Law: The availability, interpretation and performance of this 3 CONTRACT and each of its provisions shall be governed by the applicable laws of the State of Florida and the United States of America. 5 Section 7.7 - Interconnection with Other Systems: Nothing contained in this CONTRACT shall restrict or limit either Party from establishing, altering or terminating 7 interconnection points with any person not a party to this CONTRACT or amending or entering into agreements therefor. 9 Section 7.8 - Headings Not to Affect Meaning: The descriptive headings of the various 10 sections and articles of this CONTRACT have been inserted for convenience of reference 11 only and shall in no way modify or restrict any of the terms and provisions hereof. 12 Section 7.9 - No Consent to Violation of Law: Nothing herein contained shall be 13 construed to constitute consent or acquiescence by either Party to any action of the other 14 Party which violates the laws of the United States as their provisions may be amended, 15 supplemented or superseded, or which violates any other law or regulation, or any order, 16 judgment or decree of any court or governmental authority of competent jurisdiction. 17 Section 7.10 - Complete Agreement: This CONTRACT is intended as the exclusive 19 integrated statement of the Parties agreement regarding service provided hereto. Parole 19 or extrinsic evidence shall not be used to vary or contradict the express terms of this 20 CONTRACT. 21 Section 7.11 - No Dedication of Facilities: Any undertaking by one Party to the other 22 under any provision of this CONTRACT shall not constitute the dedication of the system 23 or any portion thereof of any Party to the public or to the other Party, and it is

FPSC Docket No. 941101-EO FPC Witness: SOUTHWICK Exhibit No. _ _ (HIS-7)

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understood and agreed that any such undertaking by any Party shall cease upon 1

termination of this CONTRACT. 2

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Section 7,12 - Relationship of the Parties: Nothing contained in this CONTRACT shall 3

be construed to create an association, joint venture, partnership or any other type of entity

between FPL, CORPORATION and any other party.

Section 7.13 - Tax Adjustment: To the capacity (when applicable) and energy charges 6

under this CONTRACT shall be added the applicable proportionate part of any new or

increased taxes and assessments (except State or Federal Income Taxes), imposed by any

governmental authority in addition to or in excess of those in effect as of the date of this

CONTRACT which are assessed on the basis of meters or customers, or the price of, or

revenue from, electric energy or service sold, or the quantity of energy purchased or

generated for sale or sold. In the event the selling Party pays a "gross receipts tax" to

the State of Florida in respect to power and energy sold hereunder, the selling Party shall

be fully reimbursed by the Party purchasing the electric energy.

Section 7.14 - Prudent Utility Practice: The Parties shall discharge any and all 15

obligations under this CONTRACT in accordance with Prudent Utility Practice.

Section 7.15 - Counterparts: This CONTRACT may be executed simultaneously in 17

counterparts, each of which shall be effective as of the dates specified above.

(The next page, Page 16, is the signature page)

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IN WITNESS WHEREOF, the Parties have caused this CONTRACT to be executed by 1

their duly authorized officers, and copies delivered to each Party, effective as of the date 2

and year first above stated. 3

ATTEST:

FLORIDA POWER & LIGHT COMPANY

Senior Vice President

ATTEST:

FLORIDA POWER CORPORATION

Senior Vice President

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APPENDIX A

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FPL MAXIMUM HOURLY CHARGE

For FPL as Seller the maximum Hourly Charge under this CONTRACT is \$22.80/MWh.

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APPENDIX B

FPL MAXIMUM HOURLY CHARGE

- For FPL as Seller the maximum Hourly Charge for the purpose of the last two sentences
- of Section 3.3(b)(1) is \$4.91/MWh.

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APPENDIX C

CORPORATION MAXIMUM HOURLY CHARGE

- For CORPORATION as Seller the maximum Hourly Charge under this CONTRACT is
- 4 \$15.24 /MWh.

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APPENDIX D

CORPORATION MAXIMUM HOURLY CHARGE

For CORPORATION as Seller the maximum Hourly Charge for the purpose of the last two sentences of Section 3.3(b)(2) is \$ 3.29/MWh.

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As-Available Prices During Curtailment Periods

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Curtailm	ent Period	As-Available Cost	
Date	Hour Ending	(\$/MWH)	
10/19/94	3:00	16.74	
10/19/94	4:00	16.69	
10/19/94	5:00	16.73	
10/19/94	6:00	17.04	
1/1/95	3:00	16.03	
1/1/95	4:00	16.06	
1/1/95	5:00	16.05	
1/1/95	6:00	16.04	
1/1/95	7:00	16.11	
1/2/95	2:00	14.28	
1/2/95	3:00	15.53	
1/2/95	4:00	15.65	
1/2/95	5:00	15.70	
1/2/95	6:00	15.76	
1/2/95	7:00	15.80	
1/7/95	1:00	15.04	
1/7/95	2:00	15.67	
1/7/95	3:00	15.47	
1/7/95	4:00	13.47	
1/7/95	5:00	14.59	
1/7/95	6:00	15.57	
1/7/95	7:00	15.73	
1/8/95	2:00	15.51	
1/8/95	3:00	15.66	
1/8/95	4:00	15.71	
1/8/95	5:00	15.79	
1/14/95	3:00	15.88	
1/14/95	4:00	15.45	
1/14/95	5:00	15.81	
1/30/95	2:00	15.21	
1/30/95	3:00	14.54	
1/30/95	4:00	14.81	
1/30/95	5:00	15.45	
Average As-	15.62		
Maximum A	17.04		

13.47 Minimum As-Available Cost

246 8-15-89

32.021

Proposed Regulations

53 Federal Register (1988)

¶ 32,455 Regulations Governing Bidding Programs

53 F.R. 9324 (March 22, 1985); 53 F.R. 31882 (August 22, 1988).

18 CFR Parts 35 and 293

[Docket No. RM88-5-000]

Regulations Governing Bidding Programs

March 16, 1988

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Notice of Proposed Rulemaking (NOPR).

SUMMARY: The Federal Energy Regulatory Commission (Commission) proposes to adopt regulations which would authorize state regulatory authorities and non-regulated electric utilities to implement bidding procedures as a means of establishing rates for power purchases from qualifying facilities (QFs) under section 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA).

A bidding program is a formally organized market to acquire incremental supplies of electricity. The purpose of this proposed rule is to permit bidding programs that would accurately establish utilities' avoided cost. To accomplish this goal, the Commission proposes to amend its current regulations to establish conditions and to provide specific guidance to the state regulatory authorities and non-regulated electric utilities on the use of bidding programs to set avoided costs. This proposed rule sanctions the use of bidding as a procedure for purchasing electricity from QFs.

The Commission believes that bidding will promote the statutory objectives of PURPA by encouraging cogeneration and small power production, energy conservation, efficient use of facilities and resources by electric utilities and equitable rates for electric consumers.

DATES: The Commission is scheduling a public hearing to be held on July 5, 1988, to provide interested persons with an opportunity to make oral presentations of their views. Requests to participate must be filed in writing (separately from comments) with the Secretary on or

before June 14, 1988. An original and 14 copies of written comments on this proposed rule must be filed with the Commission on or before June 14, 1988. Replies to written comments must be filed with the Commission on or before July 14, 1988. Replies to written comments shall not exceed 15 double-spaced pages.

ADDRESS:

Public hearing and comments:

Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426.

FOR PURTHER INFORMATION CONTACT:

General questions:

Martha M. Poindexter, Office of the General Counsel, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, (202) 357-8428.

Technical questions:

William Longenecker, Office of Electric Power Regulation, Federal Energy Regulatory Commission, 825 North Capitol Stret, NE., Washington, DC 20426, (202) 376-4444.

James C. Liles, Office of Economic Policy, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, (202) 357-8069.

SUPPLEMENTARY INFORMA-TION: This is a summary of the Commission's action in Docket No. RM88-5-000 adopted and released March 16, 1988.

The full text of this Commission action is available for inspection and copying during normal business hours in Room 1000 at the Commission's Headquarters, 825 North Capitol Street, NE., Washington, DC 20426; at the Atlanta Regional Office, 730 Peachtree Street N.E., Room 800, Atlanta, GA 30308; at the Chicago Regional Office, Federal Building, 230 South Dearborn Street, Room 3130, Chicago, IL 60604; at the (cont'd)

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reasonable standard for rates for utility purchases from QFs, within the meaning of section 210(b) of PURPA, "be interpreted in a manner which looks to protecting the interests of the electric consumer in receiving electric energy at equitable rates." 46

It is also possible that a bidding procedure will result in prices for QF power that are above administratively determined "full avoided cost." Under these circumstances, bidding would result in more cogeneration and small power production than would otherwise be forthcoming. Thus, by accurately determining the purchasing utility's incremental cost, bidding would foster the statutory purpose of encouraging QFs.

Furthermore, by prioritizing purchases from QFs, bidding will promote equitable rates for consumers and the efficient use of electric resources and facilities. 47 Bidding among OFs is likely to generate savings by improving the incentives for efficient cogeneration and small power production, thereby encouraging production by the most efficient QFs. Bidding will reward the QFs who can produce power more efficiently, and therefore at a lower cost. By ensuring that utilities are purchasing capacity from more efficient and lower cost QFs, bidding will promote the efficient use of electric resources and conservation, that is, the lower cost production of electric energy. Also, by fostering the public dialogue associated with the need for new capacity and accurately defining the costs of such capacity, bidding will encourage the adoption of cost effective conservation.

Finally, a properly implemented bidding procedure would not appear to run afoul of section 210's proscription against discriminatory rates for purchases from QFs. Section 210(b) states "that '[t]he rules prescribed-shall ensure that, in requiring any electric utility to offer to purchase electric energy from any qualifying cogeneration facility or qualifying small power production facility, the rates for such purchase-(2) shall not discriminate against qualifying cogenerators or qualifying small power producers." 44 Provided OFs are given an equal opportunity to compete for capacity in a bidding process, QFs are not discriminated against as a class.

No court cases have definitively construed the meaning of discrimination in the context of rates for purchases of power from OFs under section 210, but the most reasonable reading of PURPA precludes discrimination against QFs as a class; it does not require that all QFs be treated the same. The Commission's current rules allow for different rates for OFs. The rules recognize that avoided cost will tend to decline as more QFs enter the market. 49 The Commission's current rules also set the price at full avoided cost, but also provide for negotiated rates that fall below full avoided cost. Certainly, negotiations do not result in the same rate for all QFs.60 QFs offering different services or different prices are not similarly situated. Thus, differentiation among QFs is not necessarily discriminatory.

Furthermore, a definition of discrimination that would bar any differentiation among QFs would lead to several nonsensical results. For example, the inability to treat QFs differently would prevent utilities and state commissions from allocating capacity payments among QFs whenever more QF capacity is being offered than capacity is needed by the utility. It would also prevent allocation of capacity payments to refect the characteristics and quality of the power to be supplied by different QFs.

2. Legal Authority to Impose Conditions on the Use of Bidding

Section 210 of PURPA gives the Commission the authority to impose any conditions that are reasonably necessary to ensure that bidding, if employed by states and nonregulated electric utilities, is implemented in a manner consistent with PURPA. The Commission has the authority under section 210 of PURPA to require states and nonregulated electric utilities that voluntarily wish to adopt new (or to continue preexisting) bidding procedures, to implement the Commission's regulations on bidding. The Commission, acting pursuant to PURPA's delegation of rulemaking authority, may direct the states concerning the specifications and conditions for bidding procedures designed to determine a utility's avoided or incremental cost within the meaning of section 210(b) of PURPA. 61 Bidding

FPSC Docket No. 941101-EQ FPC Witness: SOUTHWICK Exhibit No. _____, (HIS-10)

March 3, 1995

Re: Curtailment Procedure

Rey Garcia Bud Finlev Tamara Waldmann Dick Hall John Tyler

Mike Hietkamper Doug Garrett Dick Patterson Jon Douberly Frank Witkowski

Chuck Gallagher Dave Johnston

Florida Power expects all cogenerators to comply with all levels of the MINIMUM LOAD EMERGENCY CURTAILMENT PLAN, just as we expect our own units to comply with minimum loads, or cycling as the case may be. We recognize however, that due to a specific short term operational reason a FPC unit or a cogenerator connected to the FPC system may not be able to reduce to a minimum load or cycle off until repairs are completed.

During any level of the MINIMUM LOAD EMERGENCY CURTAILMENT PROCEDURE ECC may be notified by a cogenerator that they are unable to comply with a request to reduce load. If you should receive a call from a cogenerator asking not to reduce load during the curtailment period do the following:

- 1. Note the time, date and the name of the person making the request on the curtailment log. Include the reason why the request is being made and the duration of the request.
- 2. Request that a written statement of why the unit could not comply with the request be sent to the Florida Power ECC via fax by 1700 the next working day.
- 3. Refer to the Minimum Load Emergency Curtailment Procedure User's Guide. Chapter 3, Sample sessions 3.2.3 to exclude any cogenerator from the curtailment calculations.

If you are in doubt as to what to do, or say in a particular situation concerning a curtailment issue call Linda Brousseau or Chuck Harper.

Chuck Harper

cc:

H.I. Southwick L. D. Brousseau