Florida
Power
CORPORATION

JAMES A. McGEE
SENIOR COUNSEL

February 17, 1995

Ms. Blanca S. Bayó, Director
Division of Records and Reporting
Florida Public Service Commission
101 East Gaines Street
Tallahassee, Florida 32399-0870

Re: Docket No. 941101-EQ

Dear Ms. Bayó:

Enclosed for filing in the subject docket are fifteen copies each of the Direct Testimony and Exhibits of the following Florida Power Corporation witnesses:

15 1. Robert D. Dolan - 01973-95
14 copies 2. Charles J. Harper 01974-95
13 copies 3. Henry I. Southwick, III - 01975-95
16 copies 4. Steven A. Lefton - 01976-95

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

ACK
AFA
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Very truly yours,

James A. McGee

JAM/jb
Enclosure
cc: Parties of Record

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A Florida Progress Company

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the Direct Testimony and Exhibits of Florida Power Corporation Witnesses Robert D. Dolan, Charles J. Harper, Henry I. Southwick, III and Steven A. Lefton have been provided by regular U.S. Mail on the 20th day of February, 1995 to the following:

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CERTIFICATE OF SERVICE

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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:
February 20, 1995

DIRECT TESTIMONY OF ROBERT D. DOLAN

ON BEHALF OF

FLORIDA POWER CORPORATION

FLORIDA POWER CORPORATION

DOCKET NO. 941101-EQ

DIRECT TESTIMONY OF ROBERT D. DOLAN

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Robert D. Dolan. My business address is Post Office Box 14042, St. Petersburg, Florida 33733.

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

A. I am employed by Florida Power Corporation ("Florida Power" or "the Company") and I am currently the Manager of Cogeneration Contracts and Administration in Florida Power's System Planning Department.

Q. Please describe your duties and responsibilities in that position.

A. I have responsibility for implementing Florida Power's cogeneration and small power production ("QF") policies, which include contract negotiation and administration. I have been involved in the Company's QF matters since 1986, except for the period of time between approximately December 31, 1990 and February 18, 1991, when I was working on behalf of another subsidiary of Florida Progress. I have been responsible for the administration of all of Florida Power's QF contracts

since June 1991. In addition, I am familiar with the measures taken by the Company to administer or clarify its various QF contracts.

Q. Please describe your educational and business background.

A. I have a Bachelor of Science Degree in Electrical Engineering from Christian Brothers University. In June, 1977, I was employed by Allen & Hoshall Consulting Engineers where I conducted numerous studies for municipal and REA electric utilities.

In 1980, I was employed by Dashiel. My duties there included turn-key substation and transmission line design and construction for industries, industrial cogenerators and utilities.

In 1982, I was employed by Turner, Collie & Braden. My duties included high voltage substation design including structures, equipment selection, configuration, relaying and specifications; process and building electrical design; and site design including electrical distribution, medium voltage substations and lighting.

In 1983, I was employed by Florida Power as an Industrial Services Engineer in the Northern Division located in Monticello. In that capacity, I was responsible for cogeneration and large industrial/commercial customers. My duties included oversight of cogeneration interconnections and participation in the contracting process for various cogeneration projects located in North Florida. In 1986, I assumed the

position of Senior Cogeneration Engineer. My responsibilities in that position were to provide project management for QF interconnections. I also performed technical and economic analyses of a wide range of cogeneration projects, negotiated contracts for firm capacity and energy from QFs, and developed the Company's guidelines for Interconnection Standards.

In 1990, I was appointed Project Manager, Cogeneration Projects. My responsibilities included continued exploration of cogeneration opportunities for Florida Power Corporation. In 1991, I was appointed to my current position as Manager, Cogeneration Contracts and Administration.

Q. Are you a member of any professional organizations?

A. Yes. For the past several years I was a member of the Edison Electric Institute Cogeneration Task Force. In addition, I am a member of the Institute of Electrical and Electronic Engineers and the Association of Energy Engineers.

Q. Do you hold any professional certifications or licenses?

A. I am a registered Professional Engineer in the State of Florida. I became registered in 1978.

Q. Have you ever testified before the Florida Public Service Commission?

A. Yes. I have testified several times before this Commission concerning QF matters, including proceedings requesting the approval of several QF contracts, a proceeding to authorize installation of new Company-owned generating units, annual planning hearings, bidding and rulemaking hearings.

II. PURPOSES AND ORGANIZATION OF TESTIMONY

Q. What are the purposes of your testimony?

A. My testimony has six basic purposes. First, I will introduce Florida Power's witnesses in this proceeding. In addition to myself, the Company is sponsoring the direct testimony of Messrs. Henry I. Southwick, III, Charles J. Harper and Steven A. Lefton.

Second, I will provide background information concerning Florida Power's capacity and energy purchase arrangements with QFs. Currently, Florida Power buys more QF capacity and energy than any other Florida utility.

Third, I will explain the federal and state rules under which QF purchases take place. I will demonstrate that the applicable rules permit a utility to interrupt or curtail QF purchases under minimum load conditions.

Fourth, I will show that each of the Company's QF contracts and rate schedules contemplated that Florida Power would retain the right to curtail purchases in minimum load conditions. These contracts and rate schedules refer specifically to the applicable curtailment rules.

Fifth, I will briefly summarize the extensive efforts that have been made to clarify or supplement the existing QF contracts to establish voluntary QF output reduction plans which will help to mitigate the excess generation conditions that would otherwise occur during minimum load periods. By agreeing to these arrangements, a number of QF suppliers have shown a willingness to participate cooperatively in the Company's efforts to mitigate a significant operational problem.

Finally, I will provide a tally of (i) the total amounts of QF capacity and energy available to the Company before voluntary reductions; (ii) the amounts which can be voluntarily curtailed under the negotiated output reduction plans; and (iii) the net amount of QF power which may be subject to involuntary curtailments. Although Florida Power and many of its QF suppliers have successfully negotiated the initial responses which will be made during minimum load periods, the numbers show clearly that Florida Power may have to resort to additional curtailments from time to time.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. As the Company's first witness, I am sponsoring Exhibit No. ___(RDD-1) which is Florida Power's October 12, 1994 "Generation Curtailment Plan For Minimum Load Conditions" ("the Curtailment Plan"). Messrs. Southwick and Harper also will discuss and support various aspects of the Curtailment Plan. In addition, I am sponsoring Exhibit No. ___(RDD-2) which provides a brief description of each QF supplier from whom the Company buys capacity and/or energy; Exhibit No. ___(RDD-3) which updates Appendix A of the Curtailment Plan; Exhibit No. ___(RDD-4) which updates Appendix B of the Curtailment Plan; and Exhibit No. ___(RDD-5) which shows an example of the likely amounts of QF power available to the Company before and after implementation of voluntary output reduction plans.

Q. Are you testifying on policy issues relating to Florida Power's QF purchases or on the relative merits of one curtailment strategy versus another?

A. No, I am not testifying on either of those subjects. My testimony is meant to set the stage for other witnesses who will explain the measures being taken by the Company to minimize the need for QF curtailments; the development of the Curtailment Plan and the principles which underlie that Plan; and the Company's experience to date operating under the Curtailment Plan. Mr. Southwick is the Company's principle policy witness in this docket.

III. INTRODUCTION OF WITNESSES

Q. Who are the Company's other witnesses in this docket?

A. Mr. Henry I. Southwick, III, is Florida Power's Director of Energy Control. Mr. Southwick has management responsibility for the Company's Energy Control Center ("ECC"). This includes transmission operations, power supply and system dispatch functions. In this capacity, Mr. Southwick has day-to-day experience with Florida Power's inter-utility purchase and sale arrangements, the Company's QF purchase commitments, all of the Company's own generating units and their operating characteristics, the operation of the interconnected transmission grid, and a wide variety of related matters. Mr. Southwick will explain Florida Power's load and resource profile; how the problem of excess generation during minimum load conditions arises; the extent of that problem on the Florida Power system; how that problem affects reliability and imposes cost burdens on Florida Power and its native load customers; the efforts which Florida Power has made and will continue to make to address minimum load conditions in ways that will minimize the need for QF curtailments; and how the Curtailment Plan satisfies this objective.

Mr. Charles J. Harper is Manager of System Control. He oversees the Company's 15 system dispatchers and four assistant dispatchers. Mr. Harper's direct testimony will explain the "nuts and bolts" of the Curtailment Plan, including the specific instructions provided to the

system operating personnel in Appendix C of the Plan. He will also summarize the Company's actual curtailment experience under the Plan when it was first implemented on October 18-19, 1994. Mr. Harper will show that the Company's initial experience operating under the Curtailment Plan proceeded reasonably smoothly, although it also served to highlight a couple of areas for improvement. Improved internal procedures and channels of communication with QFs helped to make later curtailments in January, 1995 go even smoother.

Mr. Steven A. Lefton is the Vice President For Special Projects at Aptech Engineering Services, Inc. Mr. Lefton provides additional support for the conclusion in the Curtailment Plan that Florida Power cannot reliably or cost-effectively cycle off its baseload coal units or dispatch its Crystal River 3 nuclear unit in response to minimum load conditions. This support is based upon Mr. Lefton's knowledge of Florida Power's facilities as well as his extensive national experience in the electric utility industry.

IV. BACKGROUND CONCERNING FLORIDA POWER's QF PURCHASES

Q. Are capacity and energy purchases from QFs a significant part of Florida Power's total power supply portfolio?

A. Yes. As Mr. Southwick details in his testimony, Florida Power's total system net generating capacity for the winter and spring of 1995 is approximately 8,817 MW. Of that amount, roughly 1,032 MW, or more

than ten percent, is attributable to QF purchases. The Company's QF purchases will increase to more than 1,100 MW later in 1995. Florida Power currently buys more QF capacity than any other Florida utility. This is true both in terms of absolute purchase volumes and as a percentage of total generation.

Q. Please describe the various categories of QF purchases made by Florida Power.

A. A useful way to distinguish between the types of QF purchases available to the Company is to consider three broad categories of QF supply. First, there is a small amount of QF generation available from industrial cogenerators which are able to supply their excess self-generated energy to Florida Power on an as-available basis. This energy is purchased under the as-available energy tariff which the Company has on file with this Commission. In the case of these non-firm suppliers, the tariff format simplifies the purchase and sale process for both the Company and the industrial cogenerator.

A second category of QF includes those choosing to sell both capacity and energy to Florida Power under standard offer contracts that are also required to be on file with this Commission. Under the Commission's current rules, these QFs are either projects less than 75 MW or resource recovery facilities.

The third and largest category of QFs consists of larger projects and those smaller projects opting not to enter into standard offer contracts. These QFs are free to negotiate for individual contracts. Florida Power has entered into negotiated power purchase contracts with 16 QFs. All of those contracts have been filed with and approved by this Commission. I should note that a QF with a firm capacity contract may elect to supply more power to the Company than the contract defines as the firm "Committed Capacity." This excess is treated as "as-available" energy for which there is no sales commitment and, therefore, there is no capacity payment.

Q. Are the Company's QF purchases all attributable to a few large QF facilities?

A. No. Florida Power's capacity purchases from QFs (as projected through 1996) will come from more than 17 facilities ranging in individual generation from as little as 11 MW to as much as 218 MW. All but seven of these capacity purchases are below the 75 MW threshold. In addition, Florida Power purchases small amounts of energy from a number of existing self-service cogenerators which are able to make energy sales under the Company's as-available tariff.

Q. Have you prepared an exhibit which shows which of Florida Power's QF suppliers fall under each of the three purchase categories that you have described?

A. Yes. My Exhibit No. ___(RDD-2) shows (i) the name of each QF supplier from whom Florida Power purchases capacity and/or energy; (ii) the category into which each QF supplier falls; (iii) the amount of Committed Capacity, if applicable; and (iv) the approximate amount of as-available energy typically supplied. Note that the expected level of as-available purchases is approximate because, by definition, as-available sales carry no defined volume commitment and can vary over time.

Q. Please summarize the conclusions to be drawn from Exhibit No. ___(RDD-2).

A. This exhibit shows that Florida Power has contracted to purchase approximately 116 MW of capacity under standard offer contracts and approximately 1,038 MW of capacity under negotiated contracts. Not all this capacity is on-line yet.

V. THE PURPA FRAMEWORK FOR QF PURCHASES

Q. Are you familiar with the rules of the Federal Energy Regulatory Commission ("FERC") and this Commission dealing with utility purchases of capacity and energy from QFs?

A. Although I am not a lawyer, I have read those rules as well as the statutory provisions which they were designed to implement. In addition, as the Company's Manager of Cogeneration Contracts and Administration, I have responsibility for negotiating contracts with QF

suppliers that will comply with the applicable rules. In particular, I am referring now to (i) Section 210 of the Public Utility Regulatory Policies Act of 1978 ("PURPA"); (ii) Sections 292.304(f)(1) and 292.307(b) of the FERC's regulations; and (iii) this Commission's Rule 25-17.086.

Q. Please summarize the statutory requirements as set forth in Section 210 of PURPA.

A. Section 210 stated an intention by Congress to encourage the development of QFs. To further that objective, the FERC was instructed to issue rules generally requiring electric utilities to buy power from and sell power to QFs. Those rules, however, had to meet additional statutory tests. They had to ensure acceptable levels of reliability (including reliability during emergencies) and they had to ensure that the utility's payments for QF power (i) would be just and reasonable to the utility's consumers and (ii) would not exceed the utility's incremental cost of alternative power (*i.e.*, its avoided cost). Section 210 also directed state utility commissions to promptly implement the required FERC rules.

Q. What actions did the FERC take to accomplish these PURPA objectives?

A. The FERC issued a series of rules dealing with QFs in Part 292 of its regulations (18 C.F.R. Part 292). Section 292.303 repeated the general rule in PURPA that utilities are required to buy capacity and energy made available by a QF. Section 292.304 dealt with the rates for QF

capacity and energy, including the required relationship between those rates and the utility's avoided costs.

Section 292.304(f)(1) is particularly relevant to Florida Power's Curtailment Plan. That section created an exception to the general purchase obligation set forth in Section 292.303 whenever the utility's purchase from a QF would cause the utility to incur more cost than it would incur without the purchase. Other subparagraphs of Section 292.304(f) required notice to state regulators and affected QFs and further provided for state commission verification of the circumstances requiring temporary relief from the purchase obligation. Because Section 292.304(f)(1) bears directly on the Company's Curtailment Plan, I will quote it in its entirety (emphasis added):

> (f) *Periods during which purchases not required.* (1) Any electric utility which gives notice pursuant to paragraph (f)(2) of this section will not be required to purchase electric energy or capacity during any period during which, due to operational circumstances, purchases from qualifying facilities will result in costs greater than those which the utility would incur if it did not make such purchases, but instead generated an equivalent amount of energy itself.

Q. Is there any evidence that the FERC intended this rule to relieve a utility from purchasing QF power during minimum load conditions?

A. Yes. In fact, the FERC specifically stated that its rule was intended to address "light loading periods." The rationale for Section 292.304(f)(1) was explained as follows (Order No. 69, RM79-55-000, 45 Fed. Reg. at 12227, February 25, 1980):

> This section was intended to deal with a certain condition which can occur during light loading periods. If a utility operating only base load units during those periods were forced to cut back output from the units in order to accommodate purchases from qualifying facilities, these base load units might not be able to increase their output level rapidly when the system demand later increased. As a result, the utility would be required to utilize less efficient, higher cost units with faster start-up to meet the demand that would have been supplied by the less expensive base load unit had it been permitted to operate at a constant output.
>
> The result of such a transaction would be that rather than avoiding costs as a result of the purchase from a qualifying facility, the purchasing electric utility would incur greater costs than it would have had it not purchased energy or capacity from the qualifying facility. A strict application of the avoided cost principle set forth in this section would assess these additional costs as negative avoided costs which must be reimbursed by the qualifying facility. In order to avoid the anomalous result of forcing a qualifying utility to pay an electric utility for purchasing its output, the Commission proposed that an electric utility be required to identify periods during which this situation would occur, so that the qualifying facility could cease delivery of electricity during those periods.

This language clearly contemplates an interruption of QF purchases under the minimum load conditions described in the testimony of Messrs. Southwick and Harper.

Q. How is Section 292.307 of the FERC's rules relevant to the minimum load emergency problem?

A. As I have said, Section 292.304(f)(1) clearly permits curtailment of QF purchases during minimum load emergencies. Even if that were not the case, however, Section 292.307(b) of the FERC's rules broadly

authorizes the discontinuance of QF purchases during any type of system emergency if continuation of the purchases would contribute to the emergency condition. Obviously, continuing to accept energy from third parties would contribute to and exacerbate a minimum load emergency.

Q. How did this Commission implement the standards set forth in the FERC's rules?

A. This Commission implemented the PURPA/FERC requirements by issuing its own regulations under the Florida Administrative Code. Rule 25-17.086 is the immediately relevant provision. That rule permits a utility to curtail purchases from QFs whenever the purchases "will result in costs greater than those which the utility would incur if it did not make such purchases, or otherwise place an undue burden on the utility...." Other Company witnesses in this proceeding explain that Florida Power would, in fact, incur greater costs and be unduly burdened from both a cost and reliability perspective if forced to purchase QF power in a manner inconsistent with the Curtailment Plan.

Q. When the FERC issued Section 292.304(f)(1), did that agency describe the rule as an absolute excuse from buying QF power irrespective of the utility/QF power purchase contracts?

A. No, it did not. In Order No. 69, which I referred to earlier (45 Fed. Reg. at 12228), the FERC explained that Section 292.304(f)(1) was not intended to override enforceable contract obligations. However, as I will

discuss in the next section of my testimony, all of Florida Power's existing contracts and rate schedules were written to permit curtailments in the circumstances described in Rule 25-17.086, not to contractually prohibit such curtailments. Therefore, there are no contractual obstacles which would override the purchase exemption authorized by the FERC's rules and this Commission's rules.

VI. CURTAILMENTS UNDER FLORIDA POWER's QF RATE SCHEDULES AND CONTRACTS

Q. Do all of the rate schedules and contracts under which the Company buys QF capacity and/or energy preserve the Company's right to avoid QF purchases under the circumstances described in Rule 25-17.086?

A. Yes. As I have said previously, Florida Power's QF purchases fall generally into three categories -- (i) as-available energy purchases under a standard tariff; (ii) capacity and energy sales under standard offer contracts; and (iii) capacity and energy sales under individual negotiated contracts. All of the contracts and rate schedules provide for QF curtailment under Rule 25-17.086, although not in exactly the same ways.

Q. How does the as-available energy tariff address the question of curtailments under Rule 25-17.086?

A. As-available energy is purchased under Florida Power's Rate Schedule COG-1. That schedule contains a "Limitation of Service" section which makes all service subject to each of the Commission's Rules 25-17.080

through 25-17.091. This obviously includes Rule 25-17.086. According to COG-1 (emphasis added):

> All service pursuant to this schedule is subject to the Company's "General Standards for Safety and Interconnection of Cogeneration and Small Power Production Facilities to the Electric Utility System" and to FPSC Rules 25-17.080 through 25-17.091, F.A.C.

Rate Schedule COG-1 also states that:

> Service under this rate schedule is subject to the rules and regulations of the Company and the Florida Public Service Commission.

Again, this section unquestionably incorporates Rule 25-17.086 -- a "rule" of the Commission.

Q. How did the standard offer contracts implement Rule 25-17.086?

A. The early standard offer contracts began by noting the parties' mutual intent to purchase and sell "electricity to be generated by the QF consistent with Florida Public Service Commission (FPSC) Rules 25-17.080 through 25-17.091, Florida Administrative Code." Those contracts further stated that:

> The Company agrees to pay the QF for energy produced by the Facility and delivered to the Company in accordance with the rates and procedures contained in Rate Schedule effective January 26, 1988, COG-2 attached hereto as Appendix B, as may be amended from time to time, except as stated herein....

Both the Commission rules and the COG-2 firm capacity and energy rate schedule were attached to the standard offer contracts as appendices. Like COG-1, COG-2 also was subject to "FPSC Rules 25-17.080 through 25-17.091, F.A.C." and also stated that all service is "subject

to the rules and regulations of the Company and the Florida Public Service Commission." In addition, Appendix A to COG-2 contained the following language which expressly adopted the purchase exemption set forth in Rule 25-17.086:

> The Company shall be relieved of its obligation under FPSC Rule 25-17.082 F.A.C. to purchase electricity from a Qualifying Facility when purchases result in higher costs to the Company than without such purchases, and where service to the Company's other customers may be impaired by such purchases. The Company shall notify the Qualifying Facility(ies) as soon as possible or practical, and the FPSC of the problems leading to the need for such relief.

The Company's more recent standard offer contract form contains curtailment language similar to that which is included in the negotiated contracts.

Q. How do the Company's negotiated contracts deal with Rule 25-17.086?

A. The Company has entered into a number of negotiated QF contracts since the late 1980s. Some of these contracts were negotiated versions of the standard offer model described previously. Most of them were based on a separate negotiated contract format. Like the standard offer contracts, the negotiated contract format stated that:

> ... the QF desires to sell, and the Company desires to purchase, electricity to be generated by the Facility and made available for sale to the Company, consistent with FPSC Rules 25-17.080 through 25-17.091 in effect as of the Execution Date....

In addition, these negotiated contracts included an Appendix E, which was incorporated by reference and which consisted of Rules 25-17.080

through 25-17.091 as in effect on the date of contract execution. The contracts' Appendix B Parallel Operating Procedures included an Operating Standard requiring that:

> The QF shall reduce, curtail, or interrupt electrical generation or take other appropriate action for so long as it is reasonably necessary, which in the judgment of the QF or the Company may be necessary to operate and maintain a part of either Party's system, to address, if applicable, an emergency on either party's system.

Moreover, recognizing the Company's ability to refuse deliveries under the conditions described in Rule 25-17.086, the negotiated contract format described the pricing ramifications that would result from such curtailments. Section 6.3 of the contracts stated:

> 6.3 If the Company is unable to receive part or all of the Committed Capacity which the QF has made available for sale to the Company at the Point of Delivery by reasons of (i) a Force Majeure Event; or (ii) pursuant to FPSC Rule 25-17.086, notice and procedural requirements of Article XXI shall apply and the Company will nevertheless be obligated to make capacity payments which the QF would be otherwise qualified to receive, and to pay for energy actually received, if any. The Company shall not be obligated to pay for energy which the QF would have delivered but for such occurrences and QF shall be entitled to sell or otherwise dispose of such energy in any lawful manner; provided, however, such entitlement to sell shall not be construed to require the Company to transmit such energy to another entity.

I should note that this section preserved the revenue stream available to the QF through the payment of capacity charges, but relieved the Company of the obligation to pay for curtailed energy deliveries.

Q. What do you conclude from the rate schedule and contract provisions which you have mentioned?

A. I conclude that all of Florida Power's QF purchases -- whether made under the as-available tariff, a standard offer contract or a negotiated contract -- are subject to the curtailment provisions of Rule 25-17.086. I know of no Florida Power contract or rate schedule that would override that rule.

VII. POST-CONTRACT NEGOTIATED CURTAILMENT PLANS

Q. Has Florida Power taken further actions since execution of its QF purchase agreements to address the issue of curtailments during minimum load emergencies?

A. It has. The Company anticipated that a minimum load problem would develop in the fall of 1994, when large new QF capacity increments were scheduled to come on-line. Therefore, well in advance of that time, Company personnel began to investigate ways to cope with the problem. For example, the Company carefully examined the capability of its own units to run at reduced operating levels. In addition, we approached our QF suppliers on numerous occasions in an effort to develop cooperative procedures that would help to reduce system generation during minimum load periods. A fundamental goal of these discussions was to mitigate the minimum load problem while addressing stated QF operating concerns. All of the negotiations were conducted from the premise that Florida Power already had and would retain

curtailment rights under the rules of the FERC and this Commission. Where possible, however, the Company hoped to reduce the need for involuntary curtailments by structuring voluntary output reductions during off-peak periods.

Q. If the existing rate schedules and contracts already authorized the Company to curtail purchases in minimum load emergencies, then why was it necessary to approach the QFs at all?

A. Although the contracts and rate schedules authorized curtailments when permitted by Rule 25-17.086, they did not lay out specific procedures. Nor did they specify particular off-peak periods during which individual QFs might be willing to reduce output or schedule maintenance, thereby mitigating the likelihood of a minimum load emergency. The Company wanted to develop output reduction plans to clarify and supplement the curtailment provisions which already existed in the contracts and rate schedules. In this manner, each side would have a clearer understanding in advance of the practices that would be followed to address falling loads on the Company's system. In addition, the negotiation process enabled the affected QFs to raise their particular operating concerns and gave Florida Power a chance to accommodate those concerns if possible. This was viewed as serving the business interests both of the QF and the Company. As the Curtailment Plan acknowledges, the Company remains willing to negotiate further voluntary reduction plans that address the parties' mutual needs.

It was not anticipated that the negotiated output reductions would alleviate all need for Company-initiated curtailments. Thus, the output reduction plans were designed to describe the first steps for reducing QF purchases. They also acknowledged that additional curtailments might be required.

Q. How many QFs have entered into negotiated curtailment arrangements?

A. As of October 12, 1994, there were seven. As of today there are nine, now including Orange Cogen and Lake Cogen. My Exhibit Nos. ___ and ____ (RDD-3 and RDD-4) update Appendices A and B of the Curtailment Plan to include brief descriptions of the new negotiated curtailment plans and to revise the curtailment priority groups.

Q. Are all of the negotiated curtailment plans the same?

A. No, they are not. During the course of negotiations, different QFs raised different operating issues to which the Company's personnel attempted to respond. To repeat, the objective was to achieve the maximum amount of voluntary output reductions so as to minimize the need for involuntary curtailments under this Commission's rules, and to do so in a way that would respond to the QFs' legitimate operational concerns where feasible and consistent with the various QF contracts.

Q. Has Florida Power filed all of these negotiated output reduction plans with the Commission?

A. Yes. In addition, each of the plans is summarized in Appendix A to the Curtailment Plan, as updated by my Exhibit No. ___(RDD-3).

Q. The Curtailment Plan cites the voluntary arrangement with Auburndale Power Partners as a good example of the output reduction plans which the Company has negotiated. Please provide a brief description of that arrangement.

A. The arrangement with Auburndale provides for automatic output reductions without a specific request from Florida Power. Between October 1 and November 14, and between March 15 and April 30 of each year, the Auburndale plant will reduce deliveries to the Company by 36 MW -- or 24 percent -- daily between the hours of 12:00 a.m. and 6:00 a.m. Between November 15 and March 14, Auburndale will reduce its output during the same hours by 50 MW -- or approximately one-third of the plant's capacity. Thus, for the seven-month period from October through April, Florida Power can depend on nightly output reductions. In addition, Auburndale has agreed to reduce its deliveries by 150 MW -- 100 percent -- for a maximum of five times per year, not to exceed two times per week or four hours at a time. Moreover, Florida Power can determine when, during low load months, the Auburndale plant will be shut down for annual maintenance. The Company is using these discretionary output reductions and maintenance scheduling options to further mitigate minimum load problems.

Q. Appendix A to the Curtailment Plan shows "Additional Commitments" pertaining to the Tiger Bay and Dade County voluntary output reduction plans. Please describe the additional commitments applicable to Tiger Bay.

A. Florida Power's negotiated output reduction plan with Tiger Bay, as memorialized in a December 23, 1993 letter, reflects the Company's recognition that Tiger Bay and other QFs who have agreed to such plans have acted responsibly to contribute to the solution of a difficult system operating dilemma. As noted in the Curtailment Plan (Exhibit No. ___(RDD-1) at 22-23), because these QFs have "stepped up to the plate," it would be unfair to require still greater interruption of deliveries from them until after the remaining QF suppliers have been called upon to bear their fair share of the needed output reductions.

Q. How does the Tiger Bay arrangement achieve this fairness principle?

A. The December 23, 1993 letter to Tiger Bay, which in this limited respect also applies to other similarly-situated QFs, stated that if, after Tiger Bay's voluntary reductions, other curtailments are required under Rule 25-17.086, then:

> FPC would initially curtail purchases from only those cogenerators that have not agreed to reduce their off-peak electrical output. Only if such curtailments were insufficient to remedy FPC's operational problems would FPC then begin to curtail purchases from Tiger Bay and the other cogenerators who have contractually agreed to reduce their off-peak electrical output.

This commitment is reflected in the Curtailment Plan's Appendix B groupings of QF suppliers by placing all those QFs with negotiated

reduction plans into Curtailment Group A. This grouping is discussed in more detail by Mr. Southwick.

Q. Turning to the Dade County arrangement, would you please explain the "additional commitments" applicable to that QF.

A. The commitments to Dade County are essentially the same as for Tiger Bay, except for 1995. In all years but 1995, the November 16, 1993 agreement with Dade County provides that:

> FPC will minimize its request for output curtailment by the Facility by prioritizing the Facility in the last curtailment group of cogenerators and small power producers on FPC's system.

The agreement also states that, if Florida Power refuses energy under Rule 25-17.086:

> FPC will treat Dade County as a small power producer in a separate class from any cogenerators or small power producers who have not agreed to voluntary output curtailments.

Based upon these commitments, Dade County is included as a Group A QF on Appendix B to the Curtailment Plan.

Q. In what way is Dade County treated differently during 1995?

A. In 1995, Dade County expects to install new emissions equipment at its resource recovery facility. The County advised the Company that, as a result of these activities, it would have more difficulty meeting its solid waste disposal requirements in 1995 than in other years if compelled to make further plant output reductions. To accommodate

this transitory problem, the Company agreed to minimize curtailments during 1995 only as follows:

> except for the reductions [stated earlier in the output reduction plan], FPC will minimize its requests for output curtailment by the Facility by prioritizing its curtailment requests such that Dade County will not be requested to reduce the Facility's output until all other cogenerators and small power producers have been sought for maximum curtailment.

Q. Is this unique arrangement accounted for in the Curtailment Plan?

A. Yes, at page 4 of Appendix C, which instructs Florida Power's system operating personnel to place the Dade County facility in the last curtailment group during calendar year 1995 only.

Q. Based on your knowledge of the Company's QF contracts and the negotiated output reduction plans, is it your opinion that the Curtailment Plan rationally and fairly implements those arrangements?

A. Yes.

VIII. SUMMARY OF NEGOTIATED OUTPUT REDUCTION VOLUMES

Q. Please refer to your Exhibit No. ___(RDD-5) and explain how much QF power will be available to the Company before and after implementation of the negotiated output reduction plans.

A. It is difficult to supply exact numbers because the various arrangements call for output reductions during different hours and at different times of the year. Also, individual QF units may be out of service (scheduled

or unscheduled) at different times. Therefore, Exhibit No. ___(RDD-5) provides a representative example with footnotes detailing the assumptions which I have made.

The exhibit shows that without any of the negotiated arrangements, Florida Power would have about 1,032 MW of QF power available to it. Under the stated assumptions, this amount can be reduced to roughly 745 MW during minimum load periods. The difference -- 287 MW -- represents the maximum amount by which involuntary curtailments will have been mitigated. It should be noted that in early March, 1995, Orange Cogeneration will begin making deliveries to the Company. Orange Cogeneration has agreed to reduce its output to zero MW every night. This represents another 87 MW of voluntary curtailments, and will bring the total to 347 MW. This is a significant amount, but not enough to avoid curtailments under the minimum load emergency conditions discussed by Messrs. Southwick and Harper.

Q. Mr. Dolan, does that conclude your prepared direct testimony?

A. Yes.

maximize the annual benefits of additional discretionary scheduling rights available from individual NUGs; and (3) planning capacity purchases and sales with particular attention to anticipated low load periods. As low load conditions actually materialize, the Company will, as more immediate measures, reduce its own generation levels (including up to 100% curtailment of its own University of Florida cogeneration unit) and continue efforts to schedule economic off-system sales to other parties.

A second principle followed in this Generation Curtailment Plan is that, when curtailments do become necessary, the Company generally will first curtail its "as-available" energy purchases, including amounts in excess of NUG Committed Capacities and other amounts purchased on an as-available basis. As-available energy is not assured at the time of a Company's peak capacity needs, does not enable a utility to avoid capacity costs and typically is assumed to be curtailable before a firm power supply.

A third principle followed by the Company is its recognition that certain NUGs have voluntarily agreed to engage in specified low load curtailment practices under their contracts; having already "stepped up to the plate," so to speak, they have assisted greatly in Florida Power's overall efforts to address a significant operational risk. As a result, it would be unfair to require still greater interruption of deliveries from these NUGs until after the

remaining NUGs have been called upon to bear their fair share in solving this problem. Therefore, this Plan directs the Company's system operating personnel to look to the remaining NUGs to curtail a specified portion of their firm Committed Capacity amounts before returning to the NUGs with pre-arranged curtailment plans for more interruption of firm deliveries than initially made pursuant to those plans.

A fourth principle which underlies this Plan is that the percentage reduction initially applied to the NUGs who have not negotiated a specific low load curtailment plan should be high enough to make a meaningful contribution to the excess generation "solution," but not so high as to unduly penalize or burden these NUGs. A 50% reduction from the Committed Capacity amount has been adopted for this purpose. The 50% across-the-board reduction was selected as an amount which (1) shares the burden of curtailments in a roughly proportionate manner; (2) is permissible under existing contracts and FPSC rules; (3) is consistent among the affected NUGs; (4) is administratively convenient to administer when system dispatchers are called upon to make immediate operating decisions; and (5) appears to avoid curtailment levels that might cause unintended problems relating to emission standards, thermal host requirements for cogenerators or other regulatory conditions.[4]

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[4] If the 50% reduction would impose a unique burden on any of these NUGs, then they are, of course, free to bring those special circumstances to the Company's attention and agree
(continued...)

Applying these principles, the Company has developed three basic curtailment classifications. Group A will include all NUGs that have agreed in writing to follow specific low load curtailment procedures.[1/] Group B will consist of those of the Company's firm NUG suppliers that have not specified particular low load curtailment plans. Group C will include the Company's as-available energy purchases which (1) are made under the Company's Rate Schedule COG-1 or (2) exceed the firm Committed Capacity under a negotiated power purchase contract. For ease of reference, Appendix B shows how the Company's various NUG suppliers are categorized as of the date of this Plan.

2. SUMMARY OF CURTAILMENT PROCEDURES

Based on the objectives and principles set forth in this Plan, the anticipated Company response to an excess

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[1/](...continued)
upon a project-specific curtailment plan, as each of the NUGs listed above has done. However, absent voluntary agreements with these NUGs and given the impending minimum load conditions, the Company must implement a plan which is applicable to all NUGs. Moreover, the Company cannot assure that additional curtailments might not be required in any event.

[1/] For calendar 1995 only, the system operations personnel are instructed to treat one member of Group A -- Dade County -- differently from other Group A NUGs in order to give effect to a contractual commitment by the Company, as a part of the voluntary dispatch agreement it reached with Dade County, to place the Dade County resource recovery facility into a separate curtailment classification for the year 1995 based on that facility's identified needs to install new emissions equipment and to continue meeting its solid waste disposal requirements.

generation emergency can be summarized as follows. When forecasted load is expected to drop to 2,500 MW or less and it appears that minimum system generation will exceed system load, the Company will notify its NUG suppliers of a Minimum Load Alert. The Company will confirm that NUGs are complying with their negotiated curtailment plans and will invite any interested NUGs to make further voluntary curtailments. The Company's Power Supply personnel will be responsible for gathering available system information and developing a specific plan to meet the particular minimum load conditions that are anticipated. This plan will be documented and distributed to appropriate Energy Control Center personnel. The plan will then be reviewed and updated by the System Control Supervisor and/or the generation dispatcher at approximately four-hours and two-hours before the minimum load period. In the meantime, the generation dispatcher will attempt to arrange economic off-system sales.

If, at the two-hour review or any later review, it is determined that the specified plan cannot address the minimum load condition, the generation dispatcher will, to the extent that system conditions permit: (1) attempt to make additional off-system sales; (2) reduce power purchases to minimum levels; (3) reduce Florida Power baseload units to normal minimum operating levels; and (4) cycle off any remaining oil and gas-fired units.

Following these measures, a final re-evaluation will be conducted and, whenever a Minimum Load Emergency is imminent, the generation dispatcher will issue a Minimum Load Warning. The dispatcher will remind all NUGs to implement their agreed-upon hourly reductions (if not already done) and will confirm that any other voluntary NUG curtailments should be made (if not already done).

If the generation dispatcher determines that the system generation can no longer match the decreasing load, the dispatcher will implement the following additional steps as needed to balance system generation with system load during each hour of the Minimum Load Emergency: (1) notify Group C NUGs to reduce as-available energy deliveries by a stated amount up to 100%; (2) notify Group B NUGs to reduce output by a stated amount up to 50% of their Committed Capacities; (3) notify Group A NUGs to reduce output by a stated amount up to 50% of Committed Capacities; and, as a final measure, (4) notify all NUGs, irrespective of prior curtailments, to reduce output by a stated percentage up to 100%.

The detailed operating instructions attached to this Plan as **APPENDIX C** will serve as a tool for the dispatcher to use in determining the percentage reductions by the various NUGs. The objective is to apply fixed percentages within each curtailment priority group so that the curtailment process will remain workable from the dispatcher's perspective. However, the dispatcher's goal should be to make the smallest across-

the-board percentage reduction within a given curtailment group that is needed to match the falling load. Furthermore, the dispatcher will have to adjust these percentages in certain hours as system generation and load conditions change.

3. VOLUNTARY ASSISTANCE BY AFFECTED NUGs

In order to facilitate the objectives of this Generation Curtailment Plan, Florida Power wishes to stress that whenever notified of a Minimum Generation Alert, ANY NUG THAT STANDS READY, WILLING AND ABLE TO VOLUNTARILY CURTAIL OUTPUT SHOULD IMMEDIATELY NOTIFY THE COMPANY'S GENERATION DISPATCHER. Such voluntary reductions will be factored into the low load strategy and may materially reduce the need to initiate involuntary curtailment procedures.

III. DETAILED CURTAILMENT PROCEDURES

To implement the foregoing objectives, Florida Power's system operators shall follow the step-by-step curtailment procedures set forth in APPENDIX C to this Generation Curtailment Plan whenever required to correct an anticipated generation excess attributable to low load conditions.

IV. COMPLIANCE PROCEDURES

The Company anticipates that its NUG suppliers will appreciate the need for a coordinated curtailment program, and that all of the affected NUGs will follow the instructions issued by the system operating personnel pursuant to this Generation Curtailment Plan. Such cooperation should be expected as a matter of prudent operating practice and in light of the Company's NUG contracts and the FPSC's NUG rules. However, in the event that any NUG fails to comply, it will be necessary for the Company's dispatchers to take corrective action swiftly and decisively in order to ensure continued system reliability.

This Generation Curtailment Plan recognizes that absolute compliance at all times may be unattainable. Even in the case of the Company's own units, it is not always possible to target and achieve a specific megawatt output level. Some margin of error must be tolerated. Generally, this marginal non-compliance can be remedied by making small correcting adjustments to the curtailment percentages required of other affected NUGs. For example, if one NUG in a given curtailment group was only able to reduce its output by slightly less than the amount requested, then other NUGs might be asked to reduce their outputs on that occasion by slightly more. In this way,

marginal non-compliance will be largely self-correcting and should balance out over time.[9]

Significant or repeated instances of non-compliance will have to be addressed in other ways on a case-by-case basis because it would be inequitable to allow one NUG to establish a practice of leaning on other NUGs rather than contributing its appropriate share to the excess generation solution. Where non-compliance is material or chronic, the Company would have difficulty justifying a program that simply shifts the burden of this conduct to other NUGs. Therefore, the Company reserves the right to withhold payments for energy in excess of the amounts requested, to assess additional Company costs against the NUG and to pursue any other legal or equitable remedies arising from or related to non-compliance with NUG curtailment requirements.

In addition, the Company specifically reserves the option under this Plan to physically interrupt deliveries from any NUG (or refuse schedules from intervening utilities when the NUG is not directly interconnected to the Florida Power system) if the NUG materially or repeatedly fails to comply

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[9] Individual NUGs have expressed interest in retaining the ability to agree with other NUGs to equitable arrangements for sharing the impacts of curtailment based upon their particular operating conditions. As long as the Company can be assured of a stated megawatt reduction and the arrangement is otherwise feasible to implement, the Company generally would be indifferent to an arrangement whereby certain NUGs accept a disproportionate amount of this impact on one occasion while certain other NUGs do so on a future occasion.

with dispatcher instructions issued under this Plan. It is the Company's hope that this option will be used sparingly, if at all. Moreover, it will not be used without prior notice. Before authorizing its dispatchers to disconnect any particular NUG, the Company will first provide written notice to that NUG and to the FPSC explaining that continued non-compliance will result in forced interruption of deliveries. It should be emphasized that Florida Power's goal is to obtain voluntary NUG assistance -- not to unilaterally disconnect any NUG supplier or pursue other remedies. Thus, the Company would prefer to give the NUG a reasonable opportunity to cure its non-compliance before resorting to unilateral corrective measures.

SUMMARY OF NEGOTIATED CURTAILMENT PLANS

AUBURNDALE (4/7/94 Letter)

1. CURTAILMENTS (automatic -- no advance notice required)

Period

- 2400 - 0600 hours daily
- Applicable for calendar years 1994 - 1999

Maximum deliveries

a. 114.18 MW - October 1 - November 14
b. 100.00 MW - November 15 - March 14
c. 114.18 MW - March 15 - April 30

"Special Curtailments" (FPC notice by noon of prior day)

- 100 % (150 MW)
- 4 hour periods during any of the above-stated curtailment periods
- 5 times in any calendar year
- 2 times in any calendar week
- 1st - 25th of each month except 1st - 24th of February

2. OUTAGES (with 12 months prior FPC notice)

- One 78 consecutive hour outage - 1995, 1996, 1998, 1999
- One 336 consecutive hour outage - 1997
- Initial 78 hour outage must be between March 1, 1995 and April 30, 1995
- Periods cannot be less than 330 days nor more than 395 days from the start of the prior year outage

3. RAMPS

- Ramp rate - To be mutually agreed, but not less than 1 MW per minute and not greater than 3 MW per minute
- Ramp period - 1 hour before and 2 hours after a curtailment period

TIGER BAY (8/17/93 and 11/9/93 Letters,

1. CURTAILMENTS (automatic -- no advance notice required;

Period

- 2330 - 0530 hours - November through March
- 0001 - 0700 hours - April through October

Maximum deliveries

- 78% of Facility capacity at current ambient conditions i.e., 42 MW

2. OUTAGES

a. With FPC notice by October 31 each year:
- 2 week outage - January, February, October through December

b. With 7 days FPC notice before each outage month:
- 2 consecutive weeks every March
- 2 consecutive weeks every April
- If FPC fails to give timely notice, the outages will occur in the last 2 weeks of March and April

3. RAMPS

- Cold restart - 420 minutes

4. ADDITIONAL COMMITMENTS

- 12/23/93 Letter - If further curtailments are need under FPSC Rule 25-17.086, "FPC would initially curtail purchases from only those cogenerators that have not agreed to reduce their off-peak electrical output. Only if such curtailments were insufficient to remedy FPC's operational problems would FPC then begin to curtail purchases from Tiger Bay and the other cogenerators who have contractually agreed to reduce their off-peak electrical output."

MULBERRY (10/28/93 Letter)

1. CURTAILMENTS (automatic -- no advance notice required)

Period

- 2300 - 0600 - November through March
- 2400 - 0700 - April through October

Maximum deliveries

- Zero (100% curtailment -- approximately 110 MW -- each day)

2. OUTAGES (with FPC notice by October 31 each year)

- One 2 week period - January through April, October through December
- Outages cannot be less than 10 months nor more than 14 months apart
- QF notice of major overhauls 30 days before shutdown

3. RAMPS

- Restart time must be specified in shutdown notices
- Restarts and ramp rate must be "consistent with the restart and ramp rates for the Facility"
- Ramp periods include 1 hour before and 2 hours after a shutdown

RIDGE (7/27/94 Letter)

1. CURTAILMENTS (FPC must request - QF must comply)

Period

- 2400 - 0500 hours
- Not more than 250 hours in any calendar year
- Applicable for 7 years beginning May 1, 1994

Maximum deliveries

- FPC can request up to 30% reductions (12 MW)

2. OUTAGES (with FPC notice by October 31 each year)

- One 2 week outage in January through April, October through December
- Not less than 10 months nor more than 14 months apart (except major overhaul years)

3. RAMPS

- 1 hour before and 2 hours after maintenance or curtailment periods

DADE COUNTY R.R. (11/16/93 Agreement)

1. CURTAILMENTS (FPC must request - QF must comply)

Period

- 0100 - 0600 hours
- Not more than 10 days per month
- Not more than 30 days per year
- At least 13 hours notice by FPC (by noon of prior day)

Maximum deliveries

- FPC can request up to 17 MW from the scheduled daily on-peak output level

2. OUTAGES

- Parties must coordinate maintenance schedule
- Between October 15 and March 15
- Special 1995 outage requirements for "AQCS" outage

3. RAMPS

- Nothing specific is stated

4. ADDITIONAL COMMITMENTS

- During calendar year 1995, "except for the reductions [in item 1 above], FPC will minimize its requests for output curtailment by the Facility by prioritizing its curtailment requests such that Dade County will not be requested to reduce the Facility's output until all other cogenerators and small power producers have been sought for maximum curtailment."

- In all other years, "FPC will minimize its request for output curtailment by the Facility by prioritizing the Facility in the last curtailment group of cogenerators and small power producers on FPC's system."

- If FPC refuses energy under FPSC Rule 25-17.086, "FPC will treat Dade County as a small power producer in a separate class from any cogenerators or small power producers who have not agreed to voluntary output curtailments."

PASCO COUNTY R.R. (6/23/94 Letter)

1. CURTAILMENTS (FPC can request, but Pasco must concur)

- One-third of facility capacity, 24 days annually as specified below

2. OUTAGES

- County will notify FPC of schedule by October 1 each year and parties must mutually agree
- Two scheduled maintenance periods per year - Spring (March through May) and Fall (October and November)
- County will remove 1 boiler unit or an equivalent amount of capacity (8 MW) for not less than 4 days on 3 separate occasions so that the Facility operates at 2/3 capacity for 12 days each Spring and 12 days each Fall

3. RAMPS

- Nothing specific is stated

PINELLAS COUNTY R.R. (10/11/94 Letter)

CURTAILMENTS (FPC can request, but Pinellas must concur)

- One-third of facility capacity (approx. 20 MW) 21 days annually as specified below

2. OUTAGES

- County will notify FPC of schedule by October 1 each year and parties must mutually agree
- County will remove 1 boiler unit or an equivalent amount of capacity (20 MW) for 7 days on 3 separate occasions so that the Facility operates at 2/3 capacity for 21 days each Fall. Two week separation between outages.

3. RAMPS

- Nothing specific is stated

GROUPS OF NON-UTILITY GENERATORS

GROUPS OF NON-UTILITY GENERATORS AS OF OCTOBER 12, 1994 *

A.	Dade RR	(DCRR)
	Auburndale	(AUDC)
	Mulberry	(MLBC)
	Ridge	(RDGS)
	Pasco RR	(PSRR)
	Tiger Bay	(TIGC)
	Pinellas RR	(PCRR)
B.	Orlando Cogen	(ORCL)
	Cargill	(CARG)
	Pasco Cogen	(PLC)
	Timber	(TMBR)
	Lake Cogen	(LCL)
	Lake RR	(LCRR)
	Bay County	(BAYC)
	Orange	(Not on-line until 1995)
	Panda	(Not on-line until 1997)
C.	Citrus World	(CITW)
	Occidental Suwannee	(OSC1)
	Occidental Swift Creek	(OSC2)
	St. Joe Forest Products	(SJFP)
	U.S. Agri-Chemical	(USAC)
	Florida Crushed Stone	(FCS)

* * * * * * * * * * * * *

Plus: all amounts in excess of NUG Committed Capacities

* Negotiations are ongoing as of this date with several of the Group B and C NUGs. Some or all of these NUGs could shift to another group in the future.

MINIMUM LOAD EMERGENCY CURTAILMENT PROCEDURES

MINIMUM LOAD EMERGENCY CURTAILMENT PROCEDURES

In the event of an anticipated Minimum Load Emergency, Florida Power Corporation's system operations personnel shall follow the procedures set forth below to the extent that the circumstances allow. Any significant deviation from these procedures shall be documented at the time.

Level 1 Minimum Load Alert

A. A declaration of a minimum load alert will be called by noon of the business day preceding the expected event when the forecasted minimum load is 2,500 MW or below and system generation is expected to exceed the forecasted load levels.

- The minimum load period will be identified and communicated to all NUGs.
- Where appropriate, the notice may cover an entire weekend or holiday period.
- This notice will be indicated on the as-available estimate price sheets that are sent each business day morning or it may be provided by another method which is at least as prompt and will include:

  1. A warning that compliance by Group A NUGs with the agreed-upon hourly reductions is expected.
  2. A request to all NUGs to communicate their willingness to make voluntary reductions before curtailments are initiated.

B. For the upcoming minimum load period, or periods if a weekend or holiday is involved, Power Supply personnel will collect the following information:

1. Estimates of NUG energy expected during the minimum load period(s), including scheduled maintenance outages and daily curtailment amounts.

2. Calculation of additional NUG energy which can be curtailed using discretionary curtailment options with the Group A NUGs.

3. Minimum operational limits of Company units, firm contract purchase minimums, and associated ramp rates.

C. Based on available information, Power Supply personnel will formulate a strategy for the minimum load period.

- This strategy will include consideration of a general plan for most effectively realizing the annual benefits of discretionary curtailment rights agreed to by the Group A NUGs.

- Written documentation of the information collected and the strategy defined will be prepared and distributed to ECC System Control personnel.

Level 2 Preliminary Dispatcher Review

A. Dispatcher review of system operating conditions is ongoing. Approximately four (4) hours prior to the minimum load period (typically 1900 hours), the System Control Supervisor and/or the generation dispatcher will specifically review all the documentation prepared by Power Supply personnel for the upcoming minimum load period. In addition, Company plant personnel will be contacted to verify that the data are still valid.

B. Any changes in operating conditions, NUG unit status, etc. must be noted and the plan adjusted as needed.

C. In addition, the generation dispatcher will attempt to arrange economic off-system sales.

Level 3 Minimum Load Warning

A. As the minimum load period approaches (typically between 2100 and 2300 hours), or after any subsequent system re-evaluation, and upon determination by the generation dispatcher that the generation will exceed the forecasted minimum load, the generation dispatcher will:

1. Attempt economic off-system sales.

2. Reduce all Company baseload units to normal minimum operating levels. Communicate with plant operators to reassess the ability to reduce Company coal units to emergency operating minimums. In either case, allowance for AGC and system operating requirements must be considered in establishing minimum operating levels. Reduce such units if practicable.

3. Reduce all utility purchased power to contract minimums.

4. Cycle off any remaining steam (oil or gas fired)units to the extent circumstances permit.

B. A final re-evaluation of the system shall be performed by the generation dispatcher.

- Actual unit performance and system conditions (falling load, NUG ramps rates, Company unit ramps, etc.) must be updated if necessary to determine a plan to meet the next step.

C. If, based on available load information and the measures already taken, the generation dispatcher determines that a Minimum Load Emergency is imminent (i.e., the anticipated generation will exceed the anticipated load), the generation

dispatcher will notify appropriate supervisory personnel and then issue a Minimum Load Warning Message to all NUGS.

- The message will include:

  1. A notification to all NUGs that reductions are anticipated to occur in order to match generation with system load. This notification will identify the probable time period for expected curtailments.

  2. A reminder that the agreed-upon hourly reductions should be implemented.

  3. A reminder that the additional voluntary curtailments offered in response to the Minimum Load Alert should be implemented if not done already.

Level 4 Minimum Load Emergency

A. When the generation dispatcher determines that the system generation can no longer match the decreasing load for the upcoming hour, the following additional steps will be taken and repeated hourly, or more frequently as required throughout the Minimum Load Emergency, as system operating conditions require:

  1. Notify NUGs in Group C to reduce deliveries of as-available energy by up to 100%.

  2. Notify NUGs in Group B to reduce output by X% up to a maximum of 50% of Committed Capacity. This may take place in several steps to allow for control of the system to meet falling load.

  3. Notify NUGs in Group A to reduce output by X% up to a maximum of 50% of Committed Capacity. This may take place in several steps to allow for control of the system to meet falling load.

     NOTE: During calendar year 1995 Dade County Resource Recovery shall not be curtailed in this step, but shall be curtailed together with other NUGS under step 4 below.

4. Notify NUGs in all Groups to reduce by X%. This may take place in several steps as necessary to allow for control of the system to meet falling load.

5. Steps 1 - 4 will be followed in reverse order as increasing system load allows.

6. Issue notification that the Minimum Load Emergency has ended.

Level 5 Reporting

A. Following the conclusion of a Minimum Load Emergency, the System Control Supervisor and the Power Supply Supervisor will gather all available documentation prepared during the minimum load period. All documentation will be compiled into a summary curtailment report, and made available to NUGs upon request.

B. The Company will notify the Florida Public Service Commission of the occurrence of the Minimum Load Emergency and the need to make NUG curtailments.

SUMMARY OF FLORIDA POWER CORPORATION'S QF CAPACITY

QF Supplier	Rate Schedule/ Contract Type	Committed Capacity: Negotiated Contracts	Committed Capacity: Standard Offer Contracts	Committed Capacity: As-Available Energy
Auburndale				
El Dorado	Negotiated	114.18		
LFC	Standard Offer		17	
As-Available				29
Bay County	Negotiated	11		
Cargill	Negotiated	15		
Citrus World	As-Available			0
Dade RR	Negotiated	43		
Florida Crushed Stone	As-Available			5
Lake Cogen	Negotiated	110		
Lake RR	Standard Offer		12.75	
Mulberry				
Mulberry	Negotiated	72		
Royster	Negotiated	28		
As-Available				25
Occidental Swift Creek	As-Available			4
Occidental Suwannee	As-Available			8
Orange				
CFR	Negotiated	74		
As-Available				13
Orlando CoGen	Negotiated	79.2		
Panda				
Panda	Standard Offer		74.9	
As-Available				35
Pasco Cogen	Negotiated	109		
Pasco RR	Negotiated	23		
Pinellas RR	Negotiated	55.75		
Pinellas RR North	Negotiated	40		
Ridge	Negotiated	39.6		
St. Joe Forest Products	As-Available			5
Tiger Bay				
General Peat 1,2,&3	Negotiated	171.8		
EcoPeat	Negotiated	40.15		
Timber Energy	Standard Offer		6	
As-Available				12
Timber Energy	Negotiated	12.765		
US Agri-Chemical	Standard Offer		5.1	
		1038.245	115.75	136

SUMMARY OF NEGOTIATED CURTAILMENT PLANS

AUBURNDALE (4/7/94 Letter)

1. **CURTAILMENTS** (automatic -- no advance notice required)

Period

- 2400 - 0600 hours daily
- Applicable for calendar years 1994 - 1999

Maximum deliveries

a. 114.18 MW - October 1 - November 14
b. 100.00 MW - November 15 - March 14
c. 114.18 MW - March 15 - April 30

"Special Curtailments" (FPC notice by noon of prior day)

- 100 % (150 MW)
- 4 hour periods during any of the above-stated curtailment periods
- 5 times in any calendar year
- 2 times in any calendar week
- 1st - 25th of each month except 1st - 24th of February

2. **OUTAGES** (with 12 months prior FPC notice)

- One 78 consecutive hour outage - 1995, 1996, 1998, 1999
- One 336 consecutive hour outage - 1997
- Initial 78 hour outage must be between March 1, 1995 and April 30, 1995
- Periods cannot be less than 330 days nor more than 395 days from the start of the prior year outage

3. **RAMPS**

- Ramp rate - To be mutually agreed, but not less than 1 MW per minute and not greater than 3 MW per minute
- Ramp period - 1 hour before and 2 hours after a curtailment period

TIGER BAY (8/17/93 and 11/9/93 Letters)

1. **CURTAILMENTS** (automatic -- no advance notice required)

Period

- 2330 - 0530 hours - November through March
- 0001 - 0700 hours - April through October

Maximum deliveries

- 78% of Facility capacity at current ambient conditions i.e., 42 MW

2. **OUTAGES**

a. With FPC notice by October 31 each year:
   - 2 week outage - January, February, October through December

b. With 7 days FPC notice before each outage month:
   - 2 consecutive weeks every March
   - 2 consecutive weeks every April
   - If FPC fails to give timely notice, the outages will occur in the last 2 weeks of March and April

3. **RAMPS**

- Cold restart - 420 minutes

4. **ADDITIONAL COMMITMENTS**

- 12/23/93 Letter - If further curtailments are need under FPSC Rule 25-17.086, "FPC would initially curtail purchases from only those cogenerators that have not agreed to reduce their off-peak electrical output. Only if such curtailments were insufficient to remedy FPC's operational problems would FPC then begin to curtail purchases from Tiger Bay and the other cogenerators who have contractually agreed to reduce their off-peak electrical output."

MULBERRY (10/28/93 Letter)

1. **CURTAILMENTS** (automatic -- no advance notice required)

Period

- 2300 - 0600 - November through March
- 2400 - 0700 - April through October

Maximum deliveries

- Zero (100% curtailment -- approximately 110 MW -- each day)

2. **OUTAGES** (with FPC notice by October 31 each year)

- One 2 week period - January through April, October through December
- Outages cannot be less than 10 months nor more than 14 months apart
- QF notice of major overhauls 30 days before shutdown

3. **RAMPS**

- Restart time must be specified in shutdown notices
- Restarts and ramp rate must be "consistent with the restart and ramp rates for the Facility"
- Ramp periods include 1 hour before and 2 hours after a shutdown

RIDGE (7/27/94 Letter)

1. **CURTAILMENTS** (FPC must request - QF must comply)

Period

- 2400 - 0500 hours
- Not more than 250 hours in any calendar year
- Applicable for 7 years beginning May 1, 1994

Maximum deliveries

- FPC can request up to 30% reductions (12 MW)

2. **OUTAGES** (with FPC notice by October 31 each year)

- One 2 week outage in January through April, October through December
- Not less than 10 months nor more than 14 months apart (except major overhaul years)

3. **RAMPS**

- 1 hour before and 2 hours after maintenance or curtailment periods

DADE COUNTY R.R. (11/16/93 Agreement)

1. **CURTAILMENTS** (FPC must request - QF must comply)

Period

- 0100 - 0600 hours
- Not more than 10 days per month
- Not more than 30 days per year
- At least 13 hours notice by FPC (by noon of prior day)

Maximum deliveries

- FPC can request up to 17 MW from the scheduled daily on-peak output level

2. **OUTAGES**

- Parties must coordinate maintenance schedule
- Between October 15 and March 15
- Special 1995 outage requirements for "AQCS" outage

3. **RAMPS**

- Nothing specific is stated

4. **ADDITIONAL COMMITMENTS**

- During calendar year 1995, "except for the reductions [in item 1 above], FPC will minimize its requests for output curtailment by the Facility by prioritizing its curtailment requests such that Dade County will not be requested to reduce the Facility's output until all other cogenerators and small power producers have been sought for maximum curtailment."

- In all other years, "FPC will minimize its request for output curtailment by the Facility by prioritizing the Facility in the last curtailment group of cogenerators and small power producers on FPC's system."

- If FPC refuses energy under FPSC Rule 25-17.086, "FPC will treat Dade County as a small power producer in a separate class from any cogenerators or small power producers who have not agreed to voluntary output curtailments."

PASCO COUNTY R.R. (6/23/94 Letter)

1. **CURTAILMENTS** (FPC can request, but Pasco must concur)

   - One-third of facility capacity, 24 days annually as specified below

2. **OUTAGES**

   - County will notify FPC of schedule by October 1 each year and parties must mutually agree
   - Two scheduled maintenance periods per year - Spring (March through May) and Fall (October and November)
   - County will remove 1 boiler unit or an equivalent amount of capacity (8 MW) for not less than 4 days on 3 separate occasions so that the Facility operates at 2/3 capacity for 12 days each Spring and 12 days each Fall

3. **RAMPS**

   - Nothing specific is stated

PINELLAS COUNTY R.R. (10/11/94 Letter)

CURTAILMENTS (FPC can request, but Pinellas must concur)

- One-third of facility capacity (approx. 20 MW) 21 days annually as specified below

2. OUTAGES

- County will notify FPC of schedule by October 1 each year and parties must mutually agree
- County will remove 1 boiler unit or an equivalent amount of capacity (20 MW) for 7 days on 3 separate occasions so that the Facility operates at 2/3 capacity for 21 days each Fall. Two week separation between outages.

3. RAMPS

- Nothing specific is stated

ORANGE COGENERATION (October 4, 1994 Letter)

1. CURTAILMENTS (automatic -- no advance notice required)

Period

- 2300 - 0600 - November through March
- 2400 - 0700 - April through October

Maximum deliveries

- Zero (100% curtailment -- approximately 110 MW -- each day)

2. OUTAGES (with FPC notice by October 31 each year)

- One 2 week period - June 15 through October 31

3. RAMPS

- Ramp periods include 1 hour before and 2 hours after a shutdown

LAKE COGEN (October 14, 1994 Letter)

1. CURTAILMENTS (automatic -- no advance notice required)

Period

- 2200 - 0600 and 1200 - 1700 - November through March
- 2000 - 1100 - April through October

Maximum deliveries

- 95 MW (facility capacity is 110 MW)

2. OUTAGES

- No additional changes or clarifications specified

3. RAMPS

- Nothing specific is stated

APPENDIX B
FLORIDA POWER CORPORATION
GENERATION CURTAILMENT PLAN
FOR MINIMUM LOAD CONDITIONS
Revised: February 20, 1995

GROUPS OF NON-UTILITY GENERATORS

GROUPS OF NON-UTILITY GENERATORS AS OF JANUARY 15, 1995 *

A.	Dade RR	(DCRR)
	Auburndale	(AUDC)
	Mulberry	(MLBC)
	Ridge	(RDGS)
	Pasco RR	(PSRR)
	Tiger Bay	(TIGC)
	Pinellas RR	(PCRR)
	Lake Cogen	(LCL)
	Orange	(Not on-line until later this year)
B.	Orlando Cogen	(ORCL)
	Cargill	(CARG)
	Pasco Cogen	(PLC)
	Timber	(TMBR)
	Lake RR	(LCRR)
	Bay County	(BAYC)
	Panda	(Not on-line until 1997)
	U.S. Agri-Chemical	(USAC)
C.	Citrus World	(CITW)
	Occidental Suwannee	(OSC1)
	Occidental Swift Creek	(OSC2)
	St. Joe Forest Products	(SJFP)
	Florida Crushed Stone	(FCS)

* * * * * * * * * * * * *

Plus: all amounts in excess of NUG Committed Capacities

* Some or all of the group B and C NUGs could shift to another group in the future.

An Example of Typical Voluntary Reductions during the Winter of 1994/95

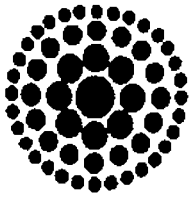
All MW values are rounded

QF Supplier	Contract Type	Capacities as Shown in 10/21/94 Curtailment Plan	Expected Capacities as of 1/95	Output Net of Negotiated Reductions	Notes
Auberndale				100	1
El Dorado	Negotiated	115	114		
LFC	Standard Offer		17		
As-Available			29		
Dade RR	Negotiated	43	43	26	2
Lake Cogen	Negotiated	102	110	95	
Mulberry				0	
Mulberry	Negotiated	72	72		
Royster	Negotiated	28	28		
As-Available			25		
Pasco RR	Standard Offer	23	23	23	
Pinellas RR	Standard Offer	56	56	56	
Ridge	Negotiated	36	40	28	2
Tiger Bay				172	3
General Peat 1,2,&3	Standard Offer	172	172		
EcoPeat	Negotiated	36	40		
Tomber Energy	Standard Offer	6	6		
As-Available			12		
Group B QFs		233	245	245	
Total Including Group B QFs		922	1032	745	4

Notes:

1. This reduction assumes that the date is between 11/15 and 3/15 and the time is between midnight and 6 A.M.
2. This reduction assumes that this will be one of the limited curtailments allowed under their agreement.
3. This reduction assumes that the date is between 11/1 and 3/31 and the time is between 11:30 P.M. and 5:30 A.M.
4. The reduction may be more because some of Group A NUGs that have very limited reductions are not included here and some Group B NUGs may typically reduce their output but have not formalized their reduction.

EXHIBITS



Florida Power
CORPORATION

GENERATION CURTAILMENT PLAN FOR MINIMUM LOAD CONDITIONS

October 12, 1994

FLORIDA POWER CORPORATION
GENERATION CURTAILMENT PLAN
FOR MINIMUM LOAD CONDITIONS

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FLORIDA POWER CORPORATION

GENERATION CURTAILMENT PLAN

FOR MINIMUM LOAD CONDITIONS

ISSUED: OCTOBER 12, 1994

I. PURPOSE

The purpose of this Generation Curtailment Plan is to establish procedures to be followed by Florida Power Corporation's system operating personnel under conditions in which the Company's total electric generation, including firm power purchases, exceeds the Company's total load, including off-system sales to other utilities. Such conditions are commonly referred to either as excess generation or minimum load conditions. The Company's goal in prescribing these operating procedures is to establish a set of guidelines and priorities which:

- address minimum load emergencies in an efficient, operationally sound and cost-effective manner;
- comply with outstanding contracts and regulatory requirements;
- are compatible with applicable criteria of the North American Electric Reliability Council ("NERC"), the Southeastern Electric Reliability Council ("SERC") and the Florida Electric Power Coordinating Group, Inc. ("FCG");

- operate in an equitable manner to Florida Power and all non-utility generators ("NUGs") from whom the Company purchases power;
- will be known in advance and readily understood both by system operating personnel and by affected NUGs;
- will be relatively uncomplicated to implement whenever the need arises; and
- contain sufficient detail to provide meaningful operational guidance while remaining flexible enough to accommodate changing generation and load conditions over time.

This Generation Curtailment Plan is designed to facilitate, not to hamper, the day-to-day decisionmaking of the Company's system operating personnel. It must be understood that individual circumstances often call for substantial operator discretion and that, ultimately, decisions may be made that deviate from this Generation Curtailment Plan in order to preserve system reliability and integrity. Should such circumstances arise, the Company will attempt to provide as much notice as is feasible to any affected NUG.

II. BACKGROUND

A. FLORIDA POWER's MINIMUM LOAD PERIODS

Florida Power's system demand fluctuates significantly on both a daily and a seasonal basis. Seasonal variations are largely weather-driven and are related to the levels of winter heating requirements and summer air conditioning demand. On a daily basis, the Company's customer demands vary as a result of both weather changes and daily usage patterns. The daily

demands can fluctuate by as much as 600 MW per hour, with the low load periods occurring generally between the hours of 11:00 p.m. and 7:00 a.m. on weekdays and 11:00 p.m. through 8:00 a.m. on weekends and holidays.

Because of occasional winter cold fronts experienced in Florida Power's service area, the Company is a winter peaking utility. However, the Company also experiences extremely low loads during much of the fall, winter and spring. In fact, the period of time between mid-October and the end of May is when the Company typically experiences its lowest customer demands. For example, actual experience between October 1993 and May 1994 reveals that the Company's gross load varied from a high of 7,189 MW on February 3, 1994 to a low of only 1,859 MW on November 26, 1993. The lowest load day during each of these eight months, and the corresponding minimum gross load, was as follows:

October 31, 1993	2,009 MW
November 26, 1993	1,859 MW
December 5, 1993	1,954 MW
January 3, 1994	1,917 MW
February 7, 1994	1,893 MW
March 14, 1994	1,931 MW
April 4, 1994	1,963 MW
May 22, 1994	1,902 MW

The Company expects this general pattern to continue in the foreseeable future such that the October-May time frame will remain the window of greatest vulnerability to minimum

load conditions. It is possible, however, that minimum loads will sometimes occur in other months as well.

In order to respond to the impending minimum load conditions in a manner that meets the goals set forth above, it is critical for the Company to implement a minimum load curtailment plan without any delay.

B. FLORIDA POWER's FIRM GENERATING CAPACITY

Florida Power currently owns 14 generating stations. Total installed net winter generating capability is about 7,335 MW. This includes: (a) five baseload units at Crystal River (755 MW of nuclear generation and 2,276 MW of coal-fired generation); (b) eight oil-fired steam intermediate units (1,630 MW at Anclote 1 and 2; Bartow 1, 2 and 3; and Suwannee 1, 2 and 3); (c) 43 combustion turbines (2,634 MW at DeBary P1-P10; Intercession City P1-P10; Suwannee River P1-P3; Bartow P1-P4; Turner P1-P4; Bayboro P1-P4; Higgins P1-P4; Avon Park P1-P2; Rio Pinar; and Port St. Joe); and (d) a 40 MW combustion turbine with heat recovery at the University of Florida. In addition, the Company currently buys approximately 400 MW of capacity from the Southern Company and 50 MW of capacity from Tampa Electric Company.

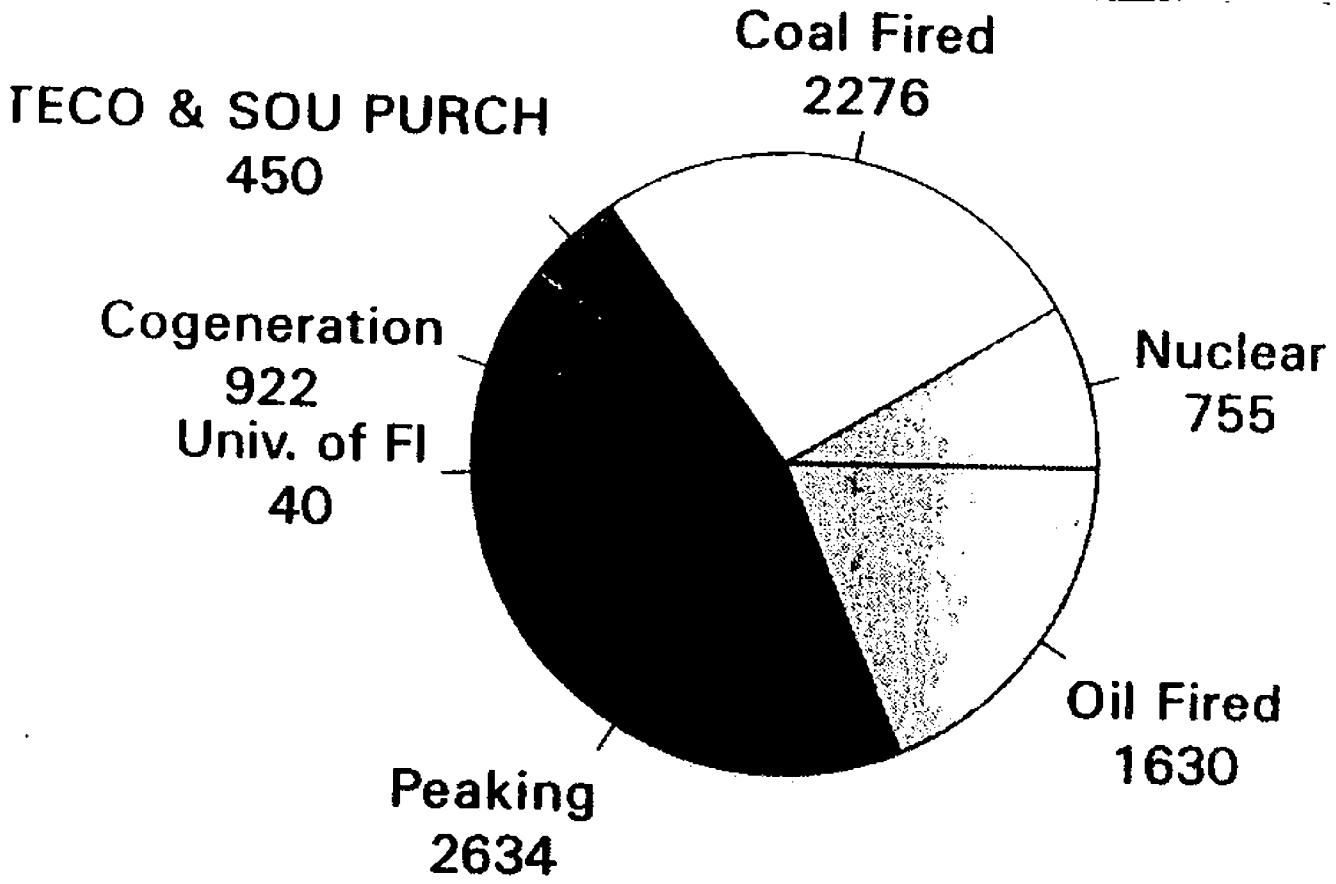
Florida Power also purchases a substantial amount of capacity from NUGs. As of October 15, 1994, the Company will be buying approximately 900 MW of NUG capacity. The NUG

purchases will increase to about 922 MW on January 1, 1995 and to more than 1,000 MW later in the year. When this capacity is added to the Company's other resources, the total firm capacity available to the Company as of January 1, 1995 will be about 8,707 MW, as shown on **CHART 1**.

Under low load conditions, the Company cannot use all of this generating capacity. The question therefore is how best to shed that amount of generation which exceeds the minimum load requirements. This is not an academic question. It is a matter of overall system integrity and reliability. Applicable NERC guidelines prohibit not only generation deficiencies but also generation excesses, except in unavoidable emergency situations. Generation and load must be kept in balance in order to meet accepted industry standards and to prevent cascading operating and reliability effects that imbalances could cause on the systems of other interconnected utilities. Such effects include frequency and voltage imbalances that can severely damage utility and customer equipment. Excess generation thus is regarded as an operational emergency. It is also an economic concern when the Company and its ratepayers are required to pay for unneeded power and thereby incur costs which they would not otherwise incur.

Florida Power Corp.

Total System Net Generating Capacity (8707MW)



Winter/Spring 1995

Chart # 1

C. FLORIDA POWER's ABILITY TO MEET MINIMUM LOAD CONDITIONS

Florida Power will begin to address low load conditions by taking prudent measures with respect to its own capacity resources. These actions include the following: (1) reducing inter-utility capacity purchases to minimum contract levels; (2) maximizing economic off-system sales of power to third parties; and (3) reducing the Company's own generating units to their normal minimum generation levels consistent with operating and reliability constraints. In addition, Florida Power has obtained and will continue to pursue voluntary curtailment arrangements with its NUG suppliers.

1. MINIMIZING CAPACITY PURCHASES

As noted above, Florida Power currently buys 50 MW of capacity from Tampa Electric and 400 MW of capacity from the Southern Company. Half of the Southern Company capacity is purchased under Schedule E of the Florida Power/Southern Company Interchange Contract. The other half is bought under a separate Unit Power Sales Agreement. Beginning in 1995 and continuing through 2002, the Schedule E purchases will be replaced by buying the full 400 MW under the Unit Power Sales Agreement.

Florida Power's ability to reduce its purchases from these other utilities is established by contract. The Tampa Electric contract allows Florida Power to reduce purchases to zero each day. The Company's rights to reduce purchases from the Southern Company differ in 1994 and for the years 1995-2002. For the balance of 1994, the Southern Company can require Florida Power to buy a minimum of 84 MW. Beginning in 1995, Florida Power can be required to purchase 168 MW. Assuming that the Southern Company enforces these minimum take requirements, this will establish the floor on Florida Power's ability to voluntarily reduce its power purchases from other utilities under existing contracts.

2. MAXIMIZING OFF-SYSTEM SALES

The Company operates as part of an integrated grid in the Southeastern United States. It owns and operates about 4500 miles of transmission lines and has direct electrical interconnections with 13 other generating utilities. Through its interconnection and interchange arrangements and as a member of the Florida Energy Broker System, Florida Power often has an opportunity to make excess capacity and/or energy available for sale to others. Under existing regulatory requirements, the Company has some flexibility in pricing these opportunity sales in order to market unneeded power. However, under these pricing rules, opportunity sales must be economic

in the sense that they must recover at least the incremental cost incurred to produce the energy. This acts as a regulatory limit on the Company's ability to sell excess energy off-system.

The Company is also limited in its ability to sell energy to others by more pragmatic considerations. Most notably, there must be a willing buyer. During periods of minimum load for Florida Power, other utilities in Florida and the southeast are likely to be facing similar, if not the same, low load conditions. Thus, potential buyers may be few while potential sellers are many. The likelihood of materially increasing off-system sales during a minimum load period may, as a practical matter, be quite limited.

3. REDUCING FLORIDA POWER's GENERATION LEVELS

Florida Power's most readily available and effective tool for managing the generation levels on its system is through the dispatch of its own units. Electric systems have minimum as well as maximum operating level tolerances. The minimum generation levels on a utility's system are affected by physical characteristics (e.g., operation of Automatic Generation Control ("AGC") and adherence to stability, voltage and thermal requirements). They are also affected by regulatory constraints and inter-utility coordination arrangements (e.g., license restrictions and maintenance of

acceptable operating reserve levels). Dispatchers must work within the accepted tolerance levels to ensure that the system is operated reliably.

As an initial step in addressing the minimum load problem, the Company normally can take any or all of its peaking and intermediate units off-line as the need for generation declines. In addition, the Company can shut down its University of Florida generator. In sum, assuming that these units are not required to be operated on a must-run basis because of other system conditions, Florida Power's operating personnel can and will shut down as much as 4,300 MW of peaking and intermediate generation as an initial response to a low load situation.

On the other hand, the Company would likely encounter severe problems if it cycled off its baseload generating units in response to minimum loads. Coal-fired units are the "workhorses" of the Florida Power system and are needed for AGC and load following purposes. It is crucial for the Company to be able to meet its rising loads following any minimum load period and to return within hours to peak capacity. The Company cannot reasonably rely only on quick-start capacity in these circumstances. Rather, it must keep the baseload coal units on-line to follow load and protect reliability.

Although cycling off the coal-fired Crystal River units would result in unacceptable cost and reliability risks, the Company does have the capability to run these units at somewhat

reduced operating levels, and will do so in minimum load conditions. Specifically, the Company estimates that these units can achieve the following normal minimum gross operating levels:[1]

	MINIMUM GENERATION	ADDITIONAL AGC REQUIREMENT
Crystal River 1	120 MW	0 MW
Crystal River 2	140 MW	0 MW
Crystal River 4	150 MW	150 MW
Crystal River 5	150 MW	150 MW
SUBTOTALS	560 MW	300 MW
TOTAL	860 MW	

Unlike the coal-fired units, Florida Power's Crystal River 3 ("CR-3") nuclear unit (in which it is about a 90%

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[1] It must be stressed that these figures are illustrative only, are based upon preliminary data rather than proven experience, and assume normal unit operations. Minimum generation levels assumed for the coal units and all other Company units may be revised by the Company at any time to reflect actual system conditions and operating constraints such as emissions compliance, AGC requirements, availability of other units, or other system conditions. Accordingly, references to "normal minimum" generation or operating levels should be construed to mean the lowest level determined by the Company from time to time at which each of its affected units can operate on a sustained basis consistent with prudent utility practices and all applicable legal/regulatory requirements. In addition, in the event of a minimum load emergency, this Generation Curtailment Plan instructs the Company's system operating personnel to query plant operators in order to determine the extent to which individual baseload units may be run at lower "emergency" minimum levels for short periods of time. It may or may not be feasible to achieve these lower operating levels, however, and the Company makes no advance representation of its ability to do so.

owner) is not dispatched in response to system load conditions. The operation of the nuclear power plant is licensed and restricted by the United States Nuclear Regulatory Commission. Due to its nuclear characteristics and operating restrictions, CR-3 is a must-run unit. Safety, reliability and cost considerations all make it impracticable to dispatch the CR-3 unit for load following purposes. In addition to the adverse impacts on CR-3 itself and the impacts on system reliability if CR-3 cannot be returned immediately to full power, running the unit at reduced capacity levels also can have undesirable side effects such as producing excessive amounts of radioactive waste water and unused fuel at the end of an operating cycle. For such reasons, CR-3 is not available for curtailment under this Plan.

Therefore, the Company's normal minimum gross generation levels in 1994 and 1995, respectively, are: 1,739 MW (860 MW from coal units plus 795 MW from Crystal River 3 plus 84 MW from the Southern Company) and 1,823 MW (860 MW from coal units plus 795 MW from Crystal River 3 plus 168 MW from the Southern Company).

If there were no additional generation on the Florida Power system, these minimum operating levels would be low enough to address nearly all anticipated light load conditions. However, as noted above, the Company also has roughly 1,000 MW of NUG capacity on its system. This creates a real and immediate excess generation emergency for Florida Power during

low load periods. For this reason, the Company requested all of its NUG suppliers to enter into discussions with it in an effort to arrive at voluntary dispatch/curtailment plans that would operate under existing power purchase contracts, and many of them have done so. The Company has attempted to involve the NUGs, wherever possible, in the process of solving the minimum load problem.

4. VOLUNTARY "CURTAILMENT" ARRANGEMENTS WITH NUGS

As noted, Florida Power has been successful in developing consensual "curtailment" plans under the contracts with a number of its NUG suppliers, and it continues to discuss this issue with others in hopes of reaching agreement with all of them. This is an important operational issue which should be of concern to all NUG suppliers and, ideally, would be addressed in the first instance by mutual consent. However, despite repeated Company invitations, some NUG suppliers have remained unwilling to agree upon specific dispatch arrangements to implement the general curtailment rights already provided for in their contracts and in the regulations of the Florida Public Service Commission ("FPSC"). Therefore, the Company was required to categorize the various NUG projects for operational curtailment purposes in order to give guidance to its system operators and to fairly apportion the burden of required curtailments among all NUG suppliers.

As discussed below, all of Florida Power's NUG contracts permit curtailments under low load conditions in accordance with the FPSC's rules. As of the date of this Plan, the following NUGs have agreed to curtail their electrical output in specific amounts during specific low load periods:

- Dade County Resource Recovery
- Auburndale Power Partners
- Mulberry Energy
- Ridge Generating Station
- Pasco County Resource Recovery
- Tiger Bay Cogen
- Pinellas County Resource Recovery

The arrangements between Florida Power and the listed NUGs differ somewhat from project to project.[2] The Auburndale Power Partners arrangement is one example. Between October 1 and November 14 and between March 15 and April 30 of each year, Auburndale has agreed to reduce its deliveries to Florida Power by 36 MW (24%) between the hours of 12:00 a.m. and 6:00 a.m. daily. This reduction increases to 50 MW (33%) for the same hours during the period November 15 through March 14. In addition, Auburndale will reduce its deliveries by 150 MW (100%) for a maximum of five times per year, two times per week and four hours at a time. Finally, Florida Power can determine

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[2] **APPENDIX A** is a summary of the arrangements with each of the listed NUGs as of the date of this Generation Curtailment Plan.

when, during the low load months, Auburndale will be shut down completely for its annual maintenance program.

When the Company is taking maximum advantage of the daily arrangements negotiated with the NUGs listed above, the total NUG generation available for delivery to the Company will be reduced by more than 200 MW. However, as shown on CHART 2, about 792 MW of NUG generation will remain on the Florida Power system in 1995.

Thus, despite (1) reducing its power purchases to a minimum, (2) maximizing its off-system sales to others, (3) reducing Company-owned generation to minimum operating levels and (4) taking maximum advantage of the negotiated NUG curtailments, Florida Power still may need to curtail more generation in order to satisfy established system operating standards when load falls to minimum levels. In the following example, the Company would be forced to curtail an additional 215 MW of NUG generation:

EXAMPLE OF MINIMUM LOAD CURTAILMENT:		
Coal	860 MW	
Nuclear	795 MW	
Southern	168 MW	
	1,823 MW	Total Company generation and firm purchases
plus	792 MW	Total NUG generation after negotiated reductions
	2,615 MW	
minus	2,400 MW	Forecasted minimum load
	215 MW	Amount of additional NUG generation to curtail

Florida Power Corp.

Example of Minimum Generation Levels after Daily Negotiated NUG Curtailment

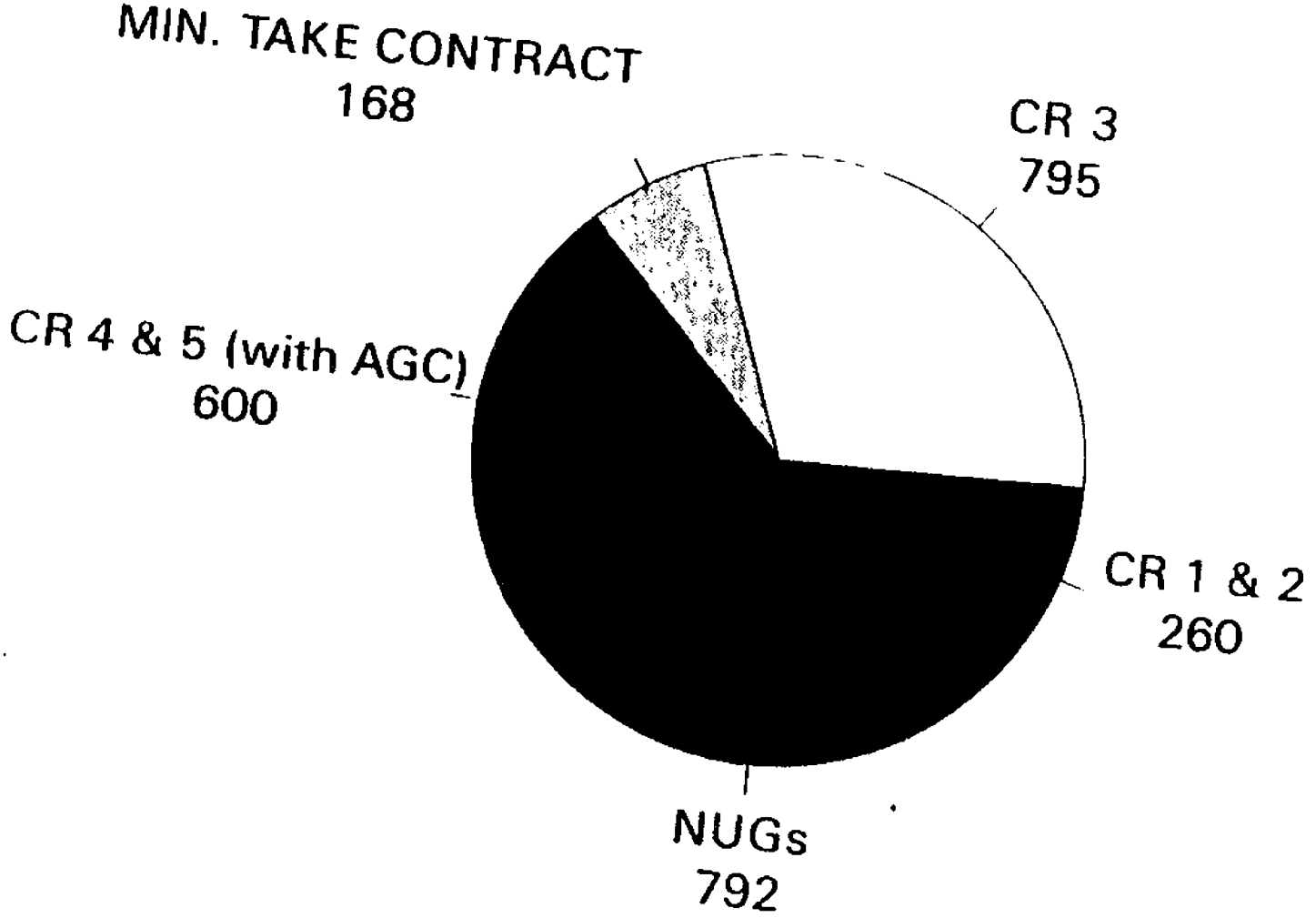

Chart # 2

Winter/Spring 1995

The procedures set forth in APPENDIX C to this Generation Curtailment Plan will be followed by Florida Power's operating personnel in prioritizing all of the Company's NUG purchases when forced to address such a low load emergency.

D. FLORIDA POWER's NUG CURTAILMENT RIGHTS

The Company buys capacity and energy from NUGs under the policies set forth in the Public Utility Regulatory Policies Act of 1978 ("PURPA") and related regulations issued by the Federal Energy Regulatory Commission ("FERC") and the FPSC. Generally, those policies require utilities to purchase power from NUGs[1] assuming that the purchase will not impair system integrity. The policies also require the purchasing utility to pay rates to the NUGs that are no greater than the costs which the purchase enables the utility to avoid -- "avoided cost". The purchase may result in avoided capacity and energy costs or only avoided energy costs. In some circumstances (like the excess generation condition), a purchase could even result in negative avoided costs or a net increase in operating costs for the purchasing utility. The overriding directive of the United States Congress when it

[1] The policies apply only to the category of NUGs referred to as "qualifying small power production facilities" and "qualifying cogeneration facilities" or "QFs." All of the NUGs now under contract to sell power to Florida Power are required to be QFs by their applicable contracts.

The procedures set forth in **APPENDIX** C to this Generation Curtailment Plan will be followed by Florida Power's operating personnel in prioritizing all of the Company's NUG purchases when forced to address such a low load emergency.

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enacted PURPA was that utilities and their ratepayers should be no worse off -- i.e., they should not suffer any system impairment or pay any greater cost -- as a result of any NUG purchase.

These standards were followed faithfully by the FERC and the FPSC when they issued rules implementing the PURPA requirements. At the Federal level, the FERC's rules provide that a utility may, with proper notice, curtail NUG purchases during any period when, because of operational circumstances, those purchases "will result in costs greater than those which the utility would incur if it did not make such purchases, but instead generated an equivalent amount of energy itself." 18 C.F.R. § 292.304(f)(1). When it issued this rule, the FERC clearly had in mind the specific low load problem which Florida Power expects to face. The FERC explained this problem as follows (Order No. 69, RM79-55-000, 45 Fed. Reg. at 12227, February 25, 1980):

> This section was intended to deal with a certain condition which can occur during light loading periods. If a utility operating only base load units during those periods were forced to cut back output from the units in order to accommodate purchases from qualifying facilities, these base load units might not be able to increase their output level rapidly when the system demand later increased. As a result, the utility would be required to utilize less efficient, higher cost units with faster start-up to meet the demand that would have been supplied by the less expensive base load unit had it been permitted to operate at a constant output.

> The result of such a transaction would be that rather than avoiding costs as a result of the purchase from a qualifying facility, the purchasing electric utility would incur greater costs than it would have had it not purchased energy or capacity from the qualifying facility. A strict application of the avoided cost principle set forth in this section would assess these additional costs as negative avoided costs which must be reimbursed by the qualifying facility. In order to avoid the anomalous result of forcing a qualifying utility to pay an electric utility for purchasing its output, the Commission proposed that an electric utility be required to identify periods during which this situation would occur, so that the qualifying facility could cease delivery of electricity during those periods.

The FPSC's rules likewise permit each utility to curtail NUG purchases in low load conditions whenever the purchases "will result in costs greater than those which the utility would incur if it did not make such purchases, or otherwise place an undue burden on the utility. . . ." Rule 25-17.086, Florida Administrative Code. The FPSC rule requires notice of the circumstances giving rise to the curtailments, both to the affected NUGs and to the FPSC itself. Florida Power is providing that notice generally with this Generation Curtailment Plan and, as the Plan contemplates, the Company will provide more specific notice whenever an excess generation condition occurs in the future.

All of Florida Power's NUG contracts recognize the Company's statutory and regulatory rights to curtail NUG purchases during minimum load conditions. The Company's early standard offer contracts made clear that the NUG sales and

Company purchases must be "consistent with Florida Public Service Commission (FPSC) Rules 25-17.080 through 25-17.091, Florida Administrative Code." In addition, the Standard Offer rate schedules, which were incorporated into those contracts, reiterated that the NUG purchases would remain subject to designated FPSC rules, including Rule 25-17.086. Appendix A to the COG-2 rate schedule specifically provided that:

> The Company shall be relieved of its obligation under FPSC Rule 25-17.082 F.A.C. to purchase electricity from a Qualifying Facility when purchases result in higher costs to the Company than without such purchases, and where service to the Company's other customers may be impaired by such purchases. The Company shall notify the Qualifying Facility(ies) as soon as possible or practical, and the FPSC of the problems leading to the need for such relief.

The more recent negotiated contracts entered into by the Company since the late 1980s similarly provided for curtailments under Rule 25-17.086. Not only did these contracts incorporate the FPSC rules generally (which were appended to each contract), but they also referred in particular to Rule 25-17.086 and described the reduction in power purchase payments which would result whenever minimum load conditions authorize a curtailment:

> 6.3 If the Company is unable to receive part or all of the Committed Capacity which the QF has made available for sale to the Company at the Point of Delivery by reasons of (i) a Force Majeure Event; or (ii) pursuant to FPSC Rule 25-17.086, notice and procedural requirements of Article XXI shall apply and the Company will nevertheless be obligated to make capacity payments which the QF would be

> otherwise qualified to receive, and to pay for energy actually received, if any. The Company shall not be obligated to pay for energy which the QF would have delivered but for such occurrences and QF shall be entitled to sell or otherwise dispose of such energy in any lawful manner; provided, however, such entitlement to sell shall not be construed to require the Company to transmit such energy to another entity.

Thus, Florida Power has both the contractual and the statutory/regulatory right to curtail NUG purchases as needed to address minimum load conditions. This Generation Curtailment Plan is designed to do that in an equitable yet effective manner.

E. GENERAL DESCRIPTION OF CURTAILMENT PROCEDURES

1. PRINCIPLES UNDERLYING THE CURTAILMENT PRIORITIES

This Generation Curtailment Plan follows a few key principles. First, it recognizes that the Company will, as a matter of course, exercise both long- and short-term efforts to limit exposure to minimum load emergencies, thereby minimizing the need for any NUG curtailments. In the long-term, the Company will plan to limit excess generation by (1) scheduling maintenance on its own units as well as the various NUG units by taking into account, as one important factor, the expected periods of lightest customer load; (2) planning ahead to