Florida Power
CORPORATION

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JAMES A. McGEE
SENIOR COUNSEL

October 13, 1994

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

941101-EQ

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.

Dear Ms. Bayó:

Enclosed for filing in the subject docket are fifteen copies of the above-referenced petition of Florida Power Corporation.

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

Very truly yours,

James A. McGee

JAM/jb
Enclosures

cc: Parties per Certificate of Service

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Petition
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10501 OCT 14 94
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Florida Power
CORPORATION

GENERATION CURTAILMENT PLAN FOR MINIMUM LOAD CONDITIONS

October 12, 1994

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FLORIDA POWER CORPORATION
GENERATION CURTAILMENT PLAN
FOR MINIMUM LOAD CONDITIONS

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APPENDICES

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.

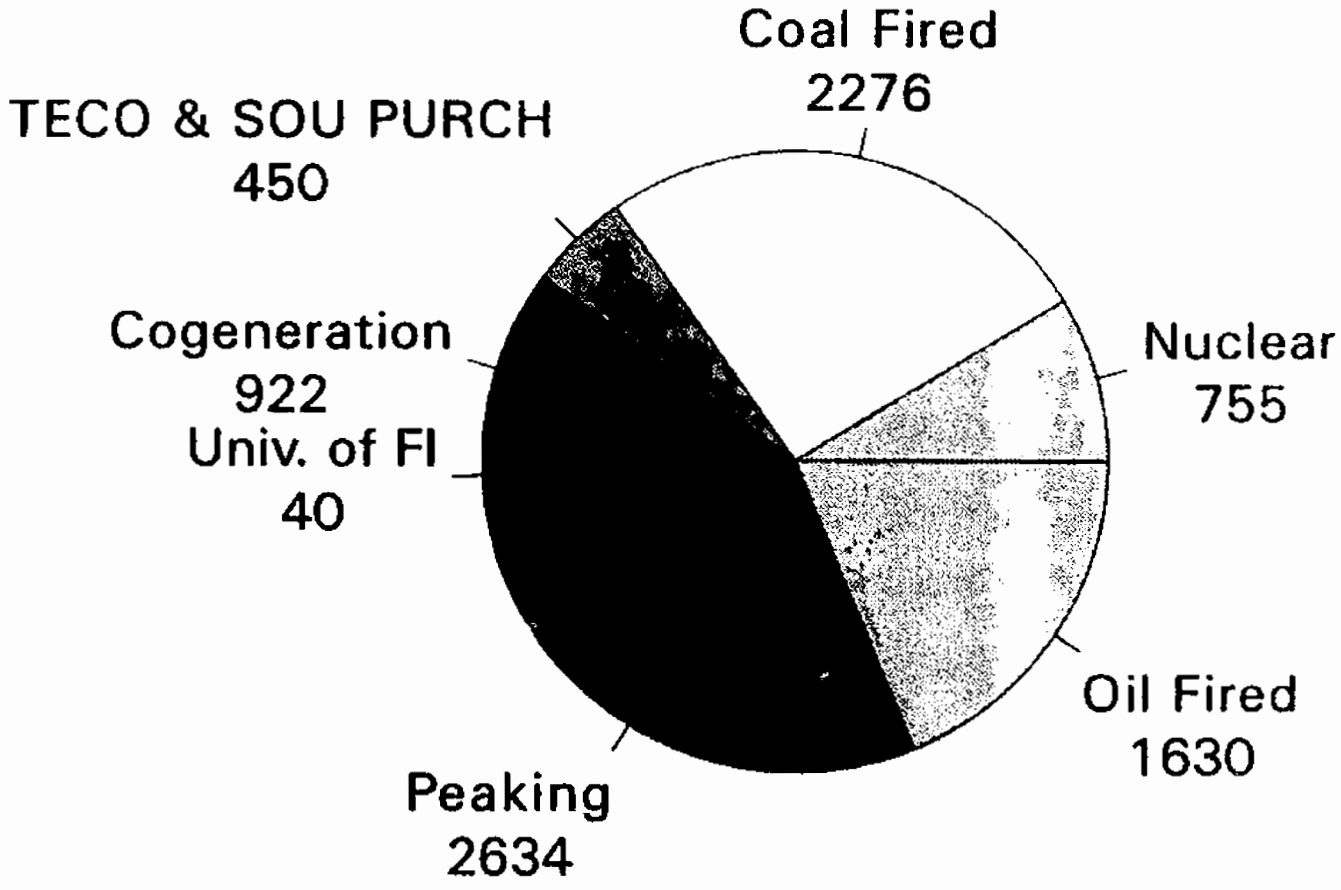
Florida Power also purchases a substantial amount of capacity from NUGs. As of October 15, 1994, the Company will be buying approximately 900 MW of NUG capacity. The NUG

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.[1] 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

[1] **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.

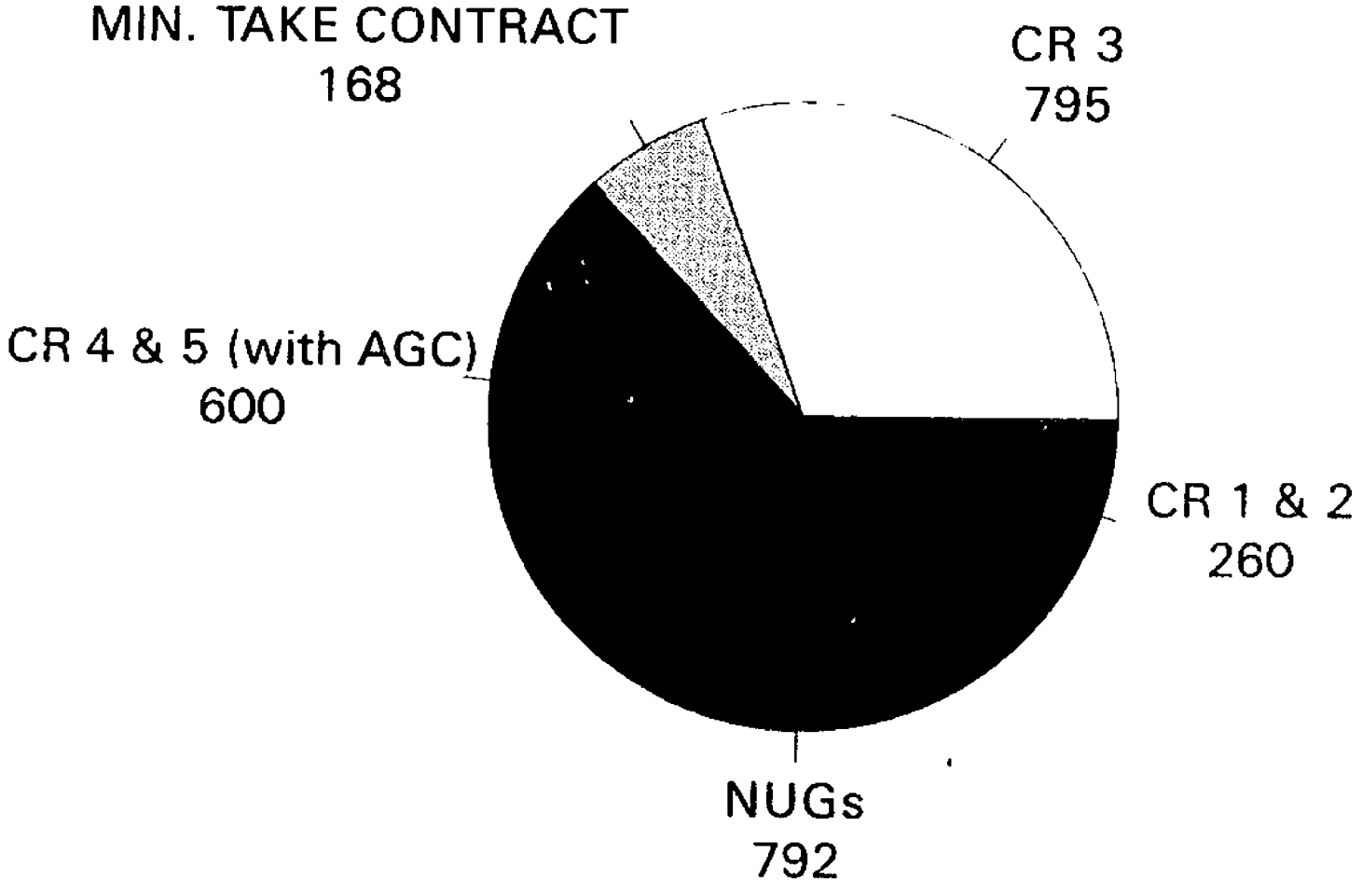
Thus, despite (1) reducing its power purchases to a minimum, (2) maximizing its off-system sales to others, (3) reducing Company-owned generation to minimum operating levels and (4) taking maximum advantage of the negotiated NUG curtailments, Florida Power still may need to curtail more generation in 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



Winter/Spring 1995

Chart # 2

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[2/] 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

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2/ 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.

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

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.[4/] 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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[4/](...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.

[5/] 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 <u>all NUGs</u>, 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.

APPENDIX A
FLORIDA POWER CORPORATION
GENERATION CURTAILMENT PLAN
FOR MINIMUM LOAD CONDITIONS
ISSUED: October 12, 1994

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 "AOCS" 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

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.