

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Generic Investigation) DOCKET NO. 940345-EU
into Planning and Operating) ORDER NO. PSC-94-1256-FOF-EU
Reserve Practices of Peninsular) ISSUED: October 11, 1994
Florida Generating Electric)
Utilities)

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON, Chairman
SUSAN F. CLARK
JULIA L. JOHNSON

Pursuant to Notice, a Formal Hearing was held in the above-styled docket on June 23, 24 and July 6, 1994.

APPEARANCES:

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FPSC-RECORDS/REPORTING

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On behalf of the Staff of the Florida Public Service Commission.

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ORDER ESTABLISHING RESERVE MARGIN CRITERIA

By the Commission:

CASE BACKGROUND

On March 19, 1993, Florida Power and Light Company (FPL) filed with the Federal Energy Regulatory Commission (FERC) an extensive and comprehensive revision to its existing wholesale power, transmission and interchange service tariffs. Among the rate changes in Docket No. ER93-465-000, et. al., was FPL's

proposal to determine the interchange service schedule under which emergency and short-term firm service would be available to other utilities, and to base that determination on the installed and operating reserve standards contained in the interchange schedules filed with the FERC.

The Florida Public Service Commission (FPSC) intervened in Docket No. ER93-465-000, et. al., and on September 13, 1993, filed its initial comments. The FPSC expressed its concern that FPL's proposed tariffs could interfere with the FPSC's statutory authority and obligation to determine the appropriate level of reserves for utilities in the state of Florida, as well as its historic responsibility to protect retail ratepayers. The Florida Commission's comments urged that the FERC defer to the FPSC's determination on the adequacy of reserves.

In addition, Florida Power Corporation petitioned the FPSC (Docket No. 931009-EI) to allow for the interruption of its non-firm customers to serve the firm load of other utilities. The Florida Commission conditionally approved the tariff modification at agenda conference in February 1994 pending a full hearing of the issues involved in substituting dispatchable demand-side management (DDSM) for generating resources in utility reserve calculations.

After discussion at the Florida Public Service Commission Internal Affairs Meeting on April 5th, 1994, this docket was opened to investigate the planning practices and operating reserves of peninsular Florida's generating electric utilities. An expedited hearing was held June 23, 24 and July 6, 1994, with the expectation that the Commission's final order would be filed for consideration by the Federal Energy Regulatory Commission in Docket Nos. ER93-465-000 et al. The hearing the Commission had set earlier on DDSM reserves in Docket No 931009-EI was suspended pending the outcome of this reserve investigation.

Testimony was provided by witnesses for Florida Power & Light, Florida Power Corporation, Tampa Electric Company (TECO), Florida Cities (FL Cities), Seminole Electric Cooperative (SECI) and the Florida Commission staff.

In addition, the following parties intervened and participated in the hearing: Jacksonville Electric Authority (JEA), Kissimmee Utility Authority (KUA); City of Lakeland's Department of Electric & Water Utilities (Lakeland), Orlando Utilities Commission (OUC), City of Tallahassee (Tallahassee) and the Florida Industrial Power Users Group (FIPUG).

References to the transcript of the hearing are indicated by the abbreviation "TR." and the appropriate page number or numbers.

ISSUES CONSIDERED

- ISSUE 1:** Should reserve margin criterion (criteria) be used to determine the applicable interchange schedule under which power could be purchased in order to avoid a capacity shortfall?
- ISSUE 2:** If reserve margin criterion (criteria) is/are used to determine the applicable interchange schedule under which power could be purchased in order to avoid a capacity shortfall, what is/are the appropriate criterion (criteria) and how should it/they be calculated?
- ISSUE 3:** If other generation is not available for sale from any utility, should utilities be required to interrupt non-firm load (interruptible, curtailable, and load management) to sell power to serve the firm load of a utility experiencing a capacity shortfall?
- ISSUE 4:** If other generation is available for sale from any utility, should utilities be required to interrupt non-firm load (interruptible, curtailable, and load management) to sell power to serve the firm load of a utility experiencing a capacity shortfall?
- ISSUE 5:** Should a utility be required to sell power to another utility to serve the purchasing utility's buy-through provisions for interruptible customers and, if so, under what terms and conditions?
- ISSUE 6:** If reserve margin criterion (criteria) is/are used to determine the applicable interchange schedule under which power could be purchased in order to avoid a capacity shortfall, what is the appropriate treatment of shared generating units in calculating the criterion (criteria)?
- ISSUE 7:** If reserve margin criterion (criteria) is/are used to determine the applicable interchange schedule under which power could be purchased in order to avoid a capacity shortfall, what is the appropriate treatment of non-firm purchased power in calculating the criterion (criteria)?
- ISSUE 8:** In lieu of a reserve margin approach to determining the applicable interchange schedule under which power could

be purchased in order to avoid a capacity shortfall, should Florida's generating utilities be required to develop a voluntary emergency power broker system with market based quotes? If so, how should issues involving generation and transmission access, availability, and price be addressed?

ISSUE 9: If reserve margin criterion (criteria) is/are used to determine the applicable interchange schedule under which power could be purchased in order to avoid a capacity shortfall, what procedures, if any, should be adopted to resolve disputes regarding the criterion (criteria)?

ISSUE 10: What further action, if any, should the Commission take?

DECISION

I. Adoption of Reserve Margin Criteria to Determine the Applicable Interchange Schedule for Emergency Service

FPL's filing at FERC seeks to increase the price of emergency power to those utilities that FPL perceives have become too dependent on purchasing peaking power from FPL. FPL argues that historically, it has been called upon to sell emergency peaking power to other utilities in the state much more frequently than they have sought to purchase peaking power. Since the current pricing of emergency power contemplates reciprocity, but contains no method for measuring it, FPL proposed to assess the adequacy of the planning and operating reserves of purchasing utilities as a threshold mechanism for charging a higher price for interchange power. (TR. 37-39) The choice of a reserve margin to trigger interchange price has proven to be quite controversial.

We believe that FPL's emergency tariff prior to its filing did not reflect equitable cost sharing between FPL's jurisdictional retail customers and their non-jurisdictional wholesale customers. The low cost emergency power in that tariff FERC did not send the proper price signal to other utilities, and may have encouraged an over reliance on emergency purchases from FPL. (TR. 1051-1052).

We believe the record has shown that the reliance problems identified by FPL are not due to inadequate system reserves. Instead, the record has shown that the reliance on FPL's emergency power has been due, in large part, purchases of buy-through power to serve non-firm load. (TR. 590) The record has also shown that the perceived decrease in availability of reciprocal reserves is

primarily due to tariff restrictions on the use of non-firm reserves. (TR. 1051) Neither of these problems are appropriately resolved by FPL's proposed pricing trigger. They require, instead, policy decisions by this Commission on retail tariff provisions which we are also addressed in this order.

However, since we cannot foresee all problems that may eventually arise in the increasingly competitive power market and, since it appears there will be increasingly complex reserve acquisitions in the future, we find that it is also appropriate for this Commission to establish a minimum threshold of adequate installed and operating reserves for generating utilities in Peninsula Florida. We establish these baseline criteria to assure the continued conservation, reliability and coordination of shared energy reserves in Florida's electric grid under the mandate of Chapter 366, Florida Statutes (1993).

Determining a fair and equitable price for any purchased power product is difficult. There is no single correct answer. FPL proposes that a utility that is deficient in the level of installed reserves must buy Schedule DF power for up to one year rather than Schedule AF power. (TR. 106). This proposal would significantly increase the cost of emergency power purchases. In order to determine when the additional charges would be made, FPL proposed a trigger that would distinguish between true reciprocity and over reliance. The trigger FPL chose was reserve adequacy.

The Florida Public Service Commission clearly has authority under Florida statutes to establish reserve margin criteria. Chapter 366, Florida Statutes (1993), empowers the Commission to:

"ensure the planning, development, and maintenance of a coordinated grid" Section 366.04(5), Florida Statutes;

"require electric power conservation and reliability within a coordinated grid" Section 366.04(2), Florida Statutes;

"require reports from all electric utilities to assure the development of adequate and reliable energy grids" Section 366.05(7), Florida Statutes;

"correct inadequacies with respect to the energy grid" Section 366.05(8), Florida Statutes; and

"require the sharing of energy reserves, with appropriate compensation, at all times to ensure that grid reliability and integrity are maintained" Section 366.055(1), Florida Statutes.

These provisions of the statutes, known as the Grid Bill, have been in effect in Florida since 1974. The Florida Commission has had 20 years of experience enforcing these statutes, and has developed the staff, procedures, and expertise to deal effectively with all matters affecting Florida's energy grid.

We find that reserve margin criteria shall be used as one of the measures of the adequacy of a utility's system, consistent with the above-referenced statutory provisions. This will help to assure that the selling utility's ratepayers do not unfairly subsidize other utilities' reliance on the selling utility's reserves.

II. Appropriate Reserve Margin Criteria

To facilitate fairness and ease of administration, the criteria must be as straight-forward and non-discriminatory as possible. We find that a minimum 15% base installed reserve margin criteria shall be utilized. The more sophisticated criteria as proposed by FPL and FPC, with adjustments for equivalent forced outage rates and forecast error, have the potential to disadvantage smaller utilities. The Florida Specific Procedure as administered by the Florida Electric Power Coordinating Group (FCG) shall continue to be the standard for operating reserves unless and until modified by consensus of the FCG and the FPSC.

III. Installed Reserve Test

The annual minimum threshold of 15% for installed reserves is established and shall be calculated as follows:

$$RM = \frac{C - L}{L} * 100$$

- "RM" - is defined as the utility's percent installed "Reserve Margin"
- "C" - is defined as the "Installed Capacity" of the utility, consisting of the aggregate sum of the rated, dependable peak-hour capabilities of the utility's resources (including most purchases) that are expected to be available at the time of the utility's peak load; and
- "L" - is defined as the expected maximum one-hour firm peak load of the utility for which reserves are required.

IV. Operating Reserve Test

The Florida Specific Procedure for operating and spinning reserves as administered by the Florida Electric Power Coordinating Group (FCG) is hereby adopted and approved. Operating reserves shall be maintained in accord with this standard.

The Florida Specific Procedure requires operating reserves to be maintained by the combined system at a value equal to or greater than the loss of generation that would result from the most severe single contingency (ie., loss of the single largest generating unit in the state).

The operating reserves shall be allocated among the utilities in proportion to each utility's maximum demand for the preceding year, and the summer gross Southeastern Electric Reliability Counsel (SERC) capability of its largest unit or ownership share of a joint unit, whichever is greater. Fifty percent shall be allocated on the basis of demand and fifty percent on the basis of the summer gross SERC capability of the largest unit. Operating reserves must be fully available within ten minutes. At least 25% of the operating reserves shall be in spinning reserves which are automatically responsive to a frequency deviation from normal.

V. Interruption of Non-Firm Load (interruptible, curtailable, and load management) to Sell Power to Serve the Firm Load of a Utility Experiencing a Capacity Shortfall

The energy reserves of all utilities in the Florida energy grid must be available to other utilities to ensure that grid reliability and integrity is maintained (Section 366.055(1), Florida Statutes). If a utility relies on its non-firm load as part of its reserves, it is logical to expect that non-firm load will be interrupted in order to maintain service to firm customers of another utility during an emergency. If the utility had elected to build generation instead of implementing non-firm load programs, the generation would have been available to the utility that was experiencing the emergency. (TR. 413).

Most parties agree that utilities should be required to interrupt non-firm load when generation is not available for sale elsewhere in the state. OUC, Tallahassee and FIPUG oppose this position. OUC gave no reason for its position. Tallahassee argued that contracts with non-firm customers are based on the premise that non-firm customers will be interrupted only to serve native load, but gave no reason why such a premise is valid. Both OUC and Tallahassee favor interruption on a voluntary basis. FIPUG argued

in its post hearing brief (p. 5) that non-firm customers agreed only to accept the risk of interruption based on the needs of the serving utility's firm customers. FIPUG overlooks the point that all reserves must be treated in a consistent manner for reciprocity to work fairly.

We find that if the selling utility relies on its non-firm load as part of its planning and operating reserves, then the selling utility shall be required to make such reserves available to another utility experiencing a capacity shortfall, even if other generation is available for sale from any utility. Otherwise, as FPC observes, a system of "good" reserves and "inferior" reserves will develop. (TR. 509-512). If non-firm load cannot be relied upon to the same degree as other firm reserves, true reciprocity in times of capacity shortfalls will not be achieved.

The parties were almost evenly split on this issue. FPC, SECI, FL Cities, JEA and KUA agree that utilities should be required to interrupt non-firm load even when other generation is available. FPL, TECO, FIPUG, Lakeland, OUC and Tallahassee, on the other hand, take the opposite position. TECO contends that under no circumstances should a utility be required to interrupt its non-firm customers if there is other capacity available in the State. (TR. 769) If non-firm customers are subjected to increased disruptions, the attractiveness of the non-firm load rate may deteriorate causing diminished customer interest.

We understand the economic implications of interrupting non-firm commercial and industrial customers; but those customers made a business decision that some amount of disruption could be tolerated in exchange for the lower non-firm rate. In fact, because of the buy-through provisions of non-firm tariffs, actual interruptions are extremely rare. Our decision to require interruption of non-firm load even when other generation is available in the state does not mean that non-firm customers will necessarily be interrupted. It simply means that buy-through power purchased to serve them may not be the lowest cost power available.

In order for us to continue to encourage development of non-firm load programs, these programs must remain cost-effective in relation to the resources they displace in a utility's generation plans. We believe non-firm loads should be used in the manner as the generating resources they replace.

VI. Buy-through Provisions for Interruptible Customers

We find that a utility shall not be required to furnish buy-through power for another utility's interruptible customers under emergency interchange schedules. A sale of this type is an economic transaction, not an emergency transaction. It should be accommodated pursuant to voluntary schedules, not obligatory emergency interchange schedules. Schedule A emergency interchange service shall not be used as a buy-through tariff.

FPL believes that if it is required to provide buy-through power to another utility's non-firm load, the obligation to serve that will be effectively transferred to FPL's ratepayers. FPL notes that TECO proposes to require FPL to provide buy-through power for TECO's non-firm customers while at the same time it proposes that those customers should not be interrupted to serve FPL's firm load during a capacity shortfall. (TR. 589-590; 768)

TECO and FIPUG believe that as long as the selling utility is receiving some fixed-cost coverage from the sale, it would be imprudent for the utility not to make a buy-through power sale. (TR. 769, 1028). FPL has stated it is not opposed to making buy-through sales, it is only opposed to a required sale under reciprocal interchange schedules and prices. FPL maintains that emergency interchange schedules should be reserved for utility emergency needs. It characterizes interruption of non-firm service as an expected event, not an emergency. We agree. Interruption of service to non-firm customers is not an emergency.

VII. Treatment of Shared Generating Units in Calculating Reserve Margin Criteria

We find that only the utility with first call on a shared resource shall be permitted to count it in determining its reserve margin. As a general rule, if a utility has first call on a unit during the summer, then it can count that capacity for its summer reserve margin. If a utility has first call during the winter, it can count the capacity as part of its winter reserve margin. (TR. 1128-1130). Since there may be some complex sharing arrangements, the Commission will consider other methods on a case by case basis.

VIII. Appropriate Treatment of Non-Firm Purchased Power in Calculating the Reserve Margin Criteria

We find that only firm purchased power arrangements shall be included in the calculation of percent installed and operating

reserve margin criteria. A utility may, however, petition the Commission on a case-by-case basis for exceptions, based on the very high availability of some non-firm purchased power.

IX. Voluntary Emergency Power Broker System with Market Based Quotes

We decline to adopt Staff's proposal to evaluate the feasibility of a voluntary emergency power broker system with market based quotes. We are not persuaded that such a system is adaptable to those situations where a utility lacks sufficient capacity to serve its firm customers. The notion of a market involves willing buyers and willing sellers agreeing on an acceptable price. The definition of "emergency" is inconsistent with the notion of a willing buyer. By our decision, we do not foreclose the possibility of exploring this alternative at some point in the future. However the evidence of record does not warrant further examination of this alternative at this time.

X. Resolution of Disputes Regarding the Reserve Criteria

We find that, in the event of a dispute regarding the definition, application or interpretation of the reserve margin criteria established in this Order, the interested parties shall attempt to reach consensus among themselves. One way to do that is for the Florida Electric Coordinating Group (FCG) to establish an arbitration committee to perform the first tier of dispute review. Failing satisfactory resolution by the parties, the affected utility(ies) shall file a complaint with the Florida Public Service Commission. We may, on our own motion, initiate an investigation at any time regarding the definition, application or interpretation of the reserve margin criteria established in this Order.

XI. Further Actions by the Florida Public Service Commission

This final order shall be filed with the FERC in Docket No. ER93-465-000, et. al. Additionally, we direct staff to open a docket to codify the standards and policy determinations detailed in this Order as a rule, consistent with Section 120.535, Florida Statutes.

Based on the foregoing, it is

ORDERED that reserve margin criteria shall be utilized by Florida utilities. It is further

ORDERED that a minimum 15% base installed reserve margin criteria shall be utilized by Florida utilities. It is further

ORDERED that the Florida Specific Procedure as administered by the Florida Electric Power Coordinating Group shall be the standard for operating reserves unless and until modified. It is further

ORDERED that if a utility relies on its non-firm load as part of its planning and operating reserves, then the utility shall be required to make such reserves available to another utility experiencing a capacity shortfall. It is further

ORDERED that a utility shall not be required to furnish buy-through power for another utility's interruptible customers under emergency interchange schedules. It is further

ORDERED that only the utility with first call on a shared resource shall be permitted to count it in determining its reserve margin. Since there may be some complex sharing arrangements, the Commission will consider other methods on a case by case basis. It is further

ORDERED that non-firm purchased power shall not be included in the calculation of reserves. A utility may, however, petition the Commission on a case-by-case basis for exceptions based on the very high availability of some non-firm purchased power. It is further

ORDERED that we decline to adopt the proposal to evaluate the feasibility of a voluntary emergency power broker system with market based quotes. It is further

ORDERED that, in the event of a dispute regarding the definition, application or interpretation of the reserve margin criteria established in this Order, the interested parties shall attempt to reach consensus among themselves. Failing satisfactory resolution by the parties, the affected utility(ies) shall file a complaint with the Florida Public Service Commission. The Commission may, on its own motion, initiate an investigation at any time regarding the definition, application or interpretation of the reserve margin criteria established in this Order. It is further

ORDERED that this final order shall be filed with the FERC in Docket No. ER93-465-000, et. al. Additionally, the Staff is directed to open a docket to codify the standards and policy determinations detailed in this Order as a rule, consistent with Section 120.535, Florida Statutes. It is further

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ORDERED that this docket shall be closed.

By ORDER of the Florida Public Service Commission, this 11th
day of October, 1994.

Blanca S. Bayó

BLANCA S. BAYÓ, Director
Division of Records and Reporting

(S E A L)

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DISSENT

Chairman Deason dissents from the decision to adopt the
installed reserves test discussed in Section II of this Order.

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of Records and Reporting within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water or sewer utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Civil Procedure. The notice of appeal must be in the form specified in Rule 9.900 (a), Florida Rules of Appellate Procedure.