

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Generic investigation into the aggregate electric utility reserve margins planned for Peninsular Florida.

DOCKET NO. 981890-EU
FILED: October 7, 1999

STAFF'S PREHEARING STATEMENT

Pursuant to Order No. PSC-99-0760-PCO-EU, filed April 20, 1999, the Staff of the Florida Public Service Commission files its Prehearing Statement.

a. All Known Witnesses

Thomas E. Ballinger
Robert L. Trapp

b. All Known Exhibits

<u>Witness</u>	<u>Proffered By</u>	<u>I.D. No.</u>	<u>Description</u>
Thomas Ballinger	Staff	(TEB-1)	Declining Trends in Peninsular Florida Reserve Margins
Thomas Ballinger	Staff	(TEB-2)	Planning Reserves vs. Operating Reserves
Thomas Ballinger	Staff	(TEB-3)	Extent of 1999/2000 Capacity Shortage should a Christmas 1989 Low Temperature occur

- AFA _____
- APP _____
- CAF _____
- CMU _____
- CTR _____
- EAG _____
- LEG _____
- MAS 5 _____
- OPC _____
- PAI _____
- SEC 1 _____
- WAW _____
- OTH _____

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

<u>Witness</u>	<u>Proffered By</u>	<u>I.D. No.</u>	<u>Description</u>
Robert Trapp	Staff	<u> </u> (RLT-1)	Table 1 - P e r c e n t R e s e r v e M a r g i n N u m b e r o f C a p a c i t y A l e r t s d u r i n g 1998 and 1999
			Table 2 - E s t i m a t e d C a p a c i t y S h o r t a g e a s a P e r c e n t o f t h e C h r i s t m a s 1989 C a p a c i t y S h o r t a g e
Robert Trapp	Staff	<u> </u> (RLT-2)	Planned Summer and Winter R e s e r v e M a r g i n s b y U t i l i t y
Robert Trapp	Staff	<u> </u> (RLT-3)	M i a m i T e m p e r a t u r e P r o f i l e s f o r H i s t o r i c a l L o w T e m p e r a t u r e P e r i o d s

c. Staff's Statement of Basic Position

Staff believes that the 15% reserve margin criterion currently used by the FRCC to assess generation adequacy is untested and unproven, and is not sufficient to ensure generation reliability for the Peninsula or individual utilities. It is staff's belief that both the Peninsula and individual systems should currently plan to meet a 20% reserve margin. Further, the FRCC should

recognize uncommitted capacity as that capacity becomes available and quantifiable.

Staff believes that the provisions Of Section 120.54(2)(a) and (b), Florida Statutes, which recognizes that rulemaking is not practicable in certain circumstances are applicable in this case. Therefore, staff does not believe that a 20% reserve margin should be codified by rule at this time. Rather, the suitability of reliability criteria should be addressed in the Commission's annual Ten-Year-Site-Plan review process.

Pursuant to Section 186.801(2), Florida Statutes, the Ten-Year-Site-Plans submitted by utilities "are tentative information for planning purposes only, and may be amended at any time at the discretion of the utility upon written notification to the commission." Historically, the Commission has not considered the review of ten year site plans as final agency action involving the determination of any party's substantial interests. Staff believes that since the Commission's decision on suitability is based on only a "preliminary study" of the plans, and given that a plan may be revised at any time at the utility's sole discretion, the Commission's procedure is correct. Given that this type of review is contemplated by the statute, the codification of a 20% reserve margin standard as a rule does not seem appropriate.

d. Staff's Position on the Issues

ISSUE 1: What is the appropriate methodology, for planning purposes, for calculating reserve margins for individual utilities and for Peninsular Florida?

POSITION: Staff does not believe that any single methodology for calculating reserve margins, for individual utilities and for Peninsular Florida, is appropriate. However, the formula for calculating a planned reserve margin should be:

$$\frac{\text{(available resource capability - firm peak load)}}{\text{firm peak load}}$$

ISSUE 2: What is the appropriate methodology, for planning purposes, for evaluating reserve margins for individual utilities and for Peninsular Florida?

POSITION: Staff does not believe that any single methodology for evaluating reserve margins, for individual utilities and for Peninsular Florida, is appropriate. However, the formula for evaluating a planned reserve margin should be:

$$\frac{(\text{available resource capability} - \text{firm peak load})}{\text{firm peak load}}$$

ISSUE 3A1: How should capacity available at time of peak (ex. QF capacity, firm and non-firm purchases and non-committed capacity) be defined?

POSITION: Firm resources should be included at a minimum. However, the FRCC and its member utilities should also measure the impact of non-firm purchases which have historically been available, as well as the impact of planned and certified non-committed capacity.

ISSUE 3A2: Should equipment delays be taken into account?

POSITION: Yes. Utilities have historically included the impact of unit in-service delays in their need determination petitions before the Commission.

ISSUE 3B1: How should seasonal peak demand be defined? Over what period (hourly, 30 min., 15 min.) should the seasonal firm peak demand be determined?

POSITION: Seasonal peak demand should be defined as the continuous peak demand on a system over a one-hour period. Consistency is important, however, in order to ensure comparability of analyses by different utilities or the FRCC.

ISSUE 3B2: What is the proper method of accounting for the diversity of the individual utilities' seasonal firm peak demands and load uncertainty?

POSITION: The FRCC should assess Peninsular Florida's reliability by not applying a load diversity factor. This would ensure consistency with past reliability studies of Peninsular Florida which did not rely on a load diversity factor.

ISSUE 3B3: Is sufficient load uncertainty data available and being used?

POSITION: No. Utilities are not giving enough weight to the potential adverse effects of weather on their generation plans.

ISSUE 3B4: How are interruptible, curtailable, load management and wholesale loads treated at the end of their tariff or contract termination period?

POSITION: Unless justified on a case-by-case basis, non-firm retail loads with term-specific contracts should generally be included as firm load beyond the current contract period. Wholesale loads with term-specific contracts should also be treated in this manner.

ISSUE 3B5: How should demand and/or energy use reduction options be evaluated and included in planning and setting reserve margins?

POSITION: Operational measures such as voltage reduction (brownouts) and feeder rotations (blackouts) should not be considered in any way in a reserve margin calculation. Such measures are what a reserve margin is designed to avoid.

ISSUE 3C: Should a percent reserve margin planning criterion be determined on an annual, seasonal, monthly, daily, or hourly basis?

POSITION: The FRCC reserve margin methodology should include an evaluation of adequacy during periods other than just summer and winter peak. Many of the capacity advisories experienced over the last few years have occurred during off-peak maintenance periods when unpredicted severe weather, forced outages, or catastrophic events have also occurred.

ISSUE 4: How should generating units be rated (MW) for inclusion in a percent reserve margin planning criterion calculation?

POSITION: Generating unit capabilities should be based on verifiable sustained operations testing during the season in which the capacity is included.

ISSUE 5: How should individual utility's reserve margins be integrated into the aggregated reserve margin for Peninsular Florida?

POSITION: In order to maintain consistency with previous reports by the FRCC, individual utility data should be aggregated without applying a load diversity factor; in other words, on a non-coincident basis.

ISSUE 6: Should there be a limit on the ratio of non-firm load to MW reserves? If so, what should that ratio be?

POSITION: At this time, it is premature to establish a standard for the ratio of non-firm load to megawatt reserves.

ISSUE 7: Should there be a minimum of supply-side resources when determining reserve margins? If so, what is the appropriate minimum level?

POSITION: At this time, it is premature to establish a standard for the ratio of supply-side resource to megawatt reserves. However, supply-side resources have certain advantages over non-firm demand-side resources.

ISSUE 8: What, if any, planning criteria should be used to assess the generation adequacy of individual utilities?

POSITION: Until such time as demonstrated otherwise on a case-by-case basis, Peninsular Florida utilities should plan their systems based on a 20 percent reserve margin criterion. This reserve margin level would include the potential contribution of non-committed capacity if the FRCC and individual utilities were to credibly quantify the availability of non-committed capacity being developed in Peninsular Florida.

ISSUE 9: Should the import capability of Peninsular Florida be accounted for in measuring and evaluating reserve margins and other reliability criteria, both for individual utilities and for Peninsular Florida?

POSITION: Yes. Clearly, firm purchases and the transport of capacity from the FPL/JEA Scherer unit in Georgia should be accounted for. Further, to the extent that non-committed capacity exists in other regions and is consistently available in Peninsular Florida, the FRCC and its member utilities should evaluate its potential impact on the adequacy of the Peninsular Florida grid.

ISSUE 10: Do the following utilities appropriately account for historical winter and summer temperatures when forecasting seasonal peak loads for purposes of establishing a percent reserve margin planning criterion?

- A. City of Homestead
- B. City of Lake Worth Utilities
- C. City of Lakeland
- D. City of Tallahassee
- E. Florida Power and Light Company
- F. Florida Power Corporation
- G. Florida Municipal Power Agency
- H. Gainesville Regional Utilities
- I. Jacksonville Electric Authority
- J. Kissimmee Utility Authority
- K. Orlando Utilities Commission
- L. Reedy Creek Improvement District

- M. Seminole Electric Cooperative
- N. Tampa Electric Company
- O. Utilities Commission of New Smyrna Beach

POSITION: No. These utilities are not giving enough weight to the potential adverse effects of weather on their generation plans.

ISSUE 11: Has the Florida Reliability Coordinating Council's 15 percent reserve margin planning criterion, or any other proposed reserve margin criterion, been adequately tested to warrant using it as a planning criterion for the review of generation adequacy on a Peninsula Florida basis? If the answer is no, what planning criterion should be used?

POSITION: No. The FRCC's 15 percent system reserve margin criterion has not been adequately tested. Based on actual historical events, the FRCC should adopt a 20 percent reserve margin criterion. This level of reserves should be calculated on non-diversified aggregate peak demand.

ISSUE 12: What percent reserve margin is currently planned for each of the following utilities and is it sufficient to provide an adequate and reliable source of energy for operational and emergency purposes in Florida?

- A. City of Homestead
- B. City of Lake Worth Utilities
- C. City of Lakeland
- D. City of Tallahassee
- E. Florida Power and Light Company
- F. Florida Power Corporation
- G. Florida Municipal Power Agency
- H. Gainesville Regional Utilities
- I. Jacksonville Electric Authority
- J. Kissimmee Utility Authority
- K. Orlando Utilities Commission
- L. Reedy Creek Improvement District
- M. Seminole Electric Cooperative
- N. Tampa Electric Company
- O. Utilities Commission of New Smyrna Beach

POSITION: The percent summer and winter reserve margins currently planned for each of these utilities are shown in Exhibit RLT-2. Planned summer reserve margins for these utilities vary from 9 percent to 57 percent, while planned winter reserve margins vary from 14 percent to 82 percent. Only Gainesville Regional Utilities and Orlando Utilities Commission are planning provide sufficient reserves (at or above the 20 percent level recommended by the staff) for each peak period during the ten-year planning horizon. The reserve margins planned by the remaining Peninsular Florida utilities are not sufficient because these reserve margins are forecasted to dip below 20 percent during at least one peak period over the next ten years.

ISSUE 13: How does the reliability criteria adopted by the FRCC compare to the reliability criteria adopted by other reliability councils?

POSITION: The FRCC's reserve margin criterion is similar to other regions that use a reserve margin criterion. However, it is difficult to compare the quality of FRCC's 15 percent criterion to the same criterion for other regions because of differences in geography, the level of scrutiny given to utilities in other regions, and the acceptance of new merchant plant construction in other regions.

ISSUE 14: Should the Commission adopt a reserve margin standard for individual utilities in Florida? If so, what should be the appropriate reserve margin criteria for individual utilities in Florida? Should there be a transition period for utilities to meet that standard?

POSITION: Until such time as demonstrated otherwise on a case-by-case basis, each utility should plan their system to meet a 20 percent reserve margin standard.

ISSUE 15: Should the Commission adopt a reserve margin standard for Peninsular Florida? If so, what should be the appropriate reserve margin criteria for Peninsular Florida?

POSITION: The Commission should use a summer and winter peak reserve margin of 20 percent for Peninsular Florida. This level of reserves should be calculated on a simple aggregation of each individual utility's reserves and seasonal peak demands without discounting for load diversity within the Peninsula. The 20 percent criterion should not be codified into a rule at this time; rather, the Commission should continue to evaluate utility reliability assessments and generation resource plans using the undocketed Ten-Year Site Planning process.

ISSUE 16: Should the Commission adopt a maximum reserve margin criterion or other reliability criterion for planning purposes; e.g., the level of reserves necessary to avoid interrupting firm load during weather conditions like those experienced on the following dates: 01/08/70, 01/17/77, 01/13/81, 01/18/81, 12/19/81, 12/25/83, 01/21/85, 01/21/86 and 12/23/89?

POSITION: No. A maximum reserve margin should not be adopted to absolutely ensure that outages do not occur during periods of extremely cold weather. Rather, the 20 percent criterion incorporates the weather patterns and events which have occurred in the past in Florida. A 20 percent criterion is based on a policy that unserved capacity resulting from extreme weather events should be no greater than that experienced during Christmas of 1989.

ISSUE 17: What percent reserve margin is currently planned for Peninsula Florida and is it sufficient to provide an adequate and reliable source of energy for operational and emergency purposes in Peninsula Florida?

POSITION: The percent summer and winter reserve margins currently planned for the FRCC region (Peninsular Florida) are shown in Exhibit RLT-2. Planned summer reserve margins vary from 17 percent to 20 percent, while planned winter reserve margins vary from 15 percent to 21 percent. Because Peninsular Florida as a whole is not planning to maintain reserve margins at or above 20 percent for all peak periods over the next ten years, the FRCC's planned level of reserves is not sufficient.

ISSUE 18: Can out-of-Peninsular Florida power sales interfere with the availability of Peninsular Florida reserve capacity to serve Peninsular Florida consumers during a capacity shortage? If so, how should such sales be accounted for in establishing a reserve margin standard?

POSITION: At this time, there appears to be no adverse event to the adequacy and reliability of the Peninsular Florida grid caused by power sales outside of Peninsular Florida.

ISSUE 19: Based on the resolution of Issues 1 through 18, what follow-up action, if any, should the Commission pursue?

POSITION: Until such time as demonstrated otherwise on a case-by-case basis, the Commission should require the use of a summer and winter peak reserve margin of 20 percent, both for individual utilities and for Peninsular Florida. This level of reserves should be calculated on a simple aggregation of each individual utility's reserves and seasonal peak demands without discounting for load diversity within the Peninsula. The 20 percent criterion should not be codified into a rule at this time; rather, the Commission should continue to evaluate utility reliability assessments and generation resource plans using the undocketed Ten-Year Site Planning process.

e. Pending Motions

Staff has filed no pending motions.

f. Pending Confidentiality Claims or Requests

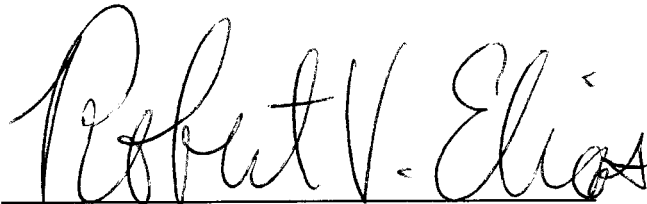
Staff has no pending confidentiality requests.

g. Compliance with Order No. PSC-99-0760-PCO-EU

Staff has complied with all requirements of the Order Establishing Procedure entered in this docket.

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Respectfully submitted this 7th day of October, 1999.

A handwritten signature in black ink, reading "Robert V. Elias". The signature is written in a cursive style with a large initial "R" and a distinct "V".

Robert V. Elias
Staff Counsel

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of Staff's Prehearing Statement has been furnished by U.S. Mail this 7th day of October, 1999, to the following:

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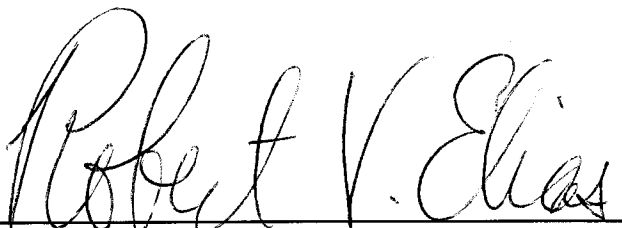
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