

ORIGINAL



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August 26, 1999

Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
4750 Esplanade Way, Room 110  
Tallahassee, FL

Re: **Generic Investigation into the Aggregate Electric Utility Reserve Margins Planned for Peninsular Florida, Docket No. 981890-EU**

Dear Ms. Bayo:

Enclosed is a copy of City of Lake Worth Utilities' (CLWU) responses to the subject in reference.

If you have any questions or comments, please contact me at (561) 586-1698 at your convenience.

Sincerely,  
CITY OF LAKE WORTH UTILITIES

Anatole Bezugly, Assistant Utilities Director

- AFA \_\_\_\_\_
- APP \_\_\_\_\_
- CAF \_\_\_\_\_ AB/jsm
- CMU \_\_\_\_\_
- CTR \_\_\_\_\_ Enclosure
- EAG \_\_\_\_\_
- LEG \_\_\_\_\_
- MAS \_\_\_\_\_ 5 pc: All Interested Parties
- OPC \_\_\_\_\_
- PAI \_\_\_\_\_
- SEC \_\_\_\_\_
- WAW \_\_\_\_\_
- OTH \_\_\_\_\_

DOCUMENT NUMBER-DATE

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REC-RECORDS/REPORTING

**Re: Generic Investigation Into  
The Aggregate Electric Utility Reserve Margins  
Planned For Peninsular Florida**

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) **Docket 981890-EU**  
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**City of Lake Worth Utilities  
Direct Testimony**

The City of Lake Worth Utilities has reviewed the following list of issues revised as a result of order PSC-99-1274-PCO-EU issued July 1, 1999, and hereby submits the following as testimony.

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

The City of Lake Worth Utilities is in agreement and support of FRCC's current Methodology of reserve margin calculation.

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

The City of Lake Worth is in agreement and support of FRCC's current Methodology of reserve margin evaluation.

**Issue 3      How should the individual components of an individual or Peninsular Florida Percent reserve margin planning criterion be defined:**

**A.      Capacity available at time of peak (Ex. QF capacity, firm and non-firm purchases and non-committed capacity). Should equipment delays be taken into account?**

Capacity available at time of peak is the total of generating units and contracted, dependable capacity.

**B.      Seasonal firm peak demand. Over what period (hourly, 30 min., and 15 min.) should the seasonal firm peak demand be determined? What is the proper method of accounting for the diversity of the individual utilities' seasonal firm peak demands and load uncertainty? Is sufficient load uncertainty data available and being used? How are interruptible, curtailable, load management and wholesale loads treated at the end of their tariff or contract termination period? How should demand and/or energy use reduction options be evaluated and included in planning and setting reserve margins?**

Seasonal firm peak demand is the maximum need for electricity that occurs in a specific time period or season. Such firm peak demand also determines the capacity required by the utility, and should be calculated on an hourly, integrated basis.

To properly account for diversity of individual utilities' seasonal firm peak demand on the state level, hourly utility loads should be aggregated. FRCC currently aggregates individual utility load when performing reliability studies.

The City of Lake Worth Utilities does not have at this time, interruptible, curtailable, or load management programs. Wholesale loads are non-firm. FRCC should develop procedures to ensure all Peninsular Florida load is accounted for throughout the planning horizon.

Forecasting expected levels of demand and energy use reduction options allows the utility to adjust their firm load prior to calculating the capacity and reserves needed.

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

A percent reserve margin should be calculated for all Florida utilities and for the State on a seasonal basis.

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

FRCC should develop a methodology for rating generating units.

**Issue 5 How should individual utilities reserve margins be integrated into the aggregated reserve margin for Peninsular Florida?**

The individual utilities should develop reserve margin criteria that are appropriate for their unique systems.

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

Analytical work should be done by FRCC to analyze and recommend a maximum limit.

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

See Issue 6.

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

If a planning criteria is adopted, the criteria should be the same for all utilities.

**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?**

Firm contracted utility purchases from outside Florida are properly reported and counted by the utilities. FRCC studies report and count these imports when evaluating Peninsular Florida reliability.

Import capability should be counted as a resource in measuring and evaluating reserve margins to the extent that the Utility or the State can demonstrate that dependable supply-side resources are available.

**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?**

The City of Lake Worth Utilities peak demand forecast represents a trend analysis of 17 years of historical data, weather-normalized to typical temperatures. For each season, winter and summer, a separate model evaluates the effect of weather on historical peak demands and outputs weather-normalized peak demands. The weather-normalized peak demands become the basis for the trend analysis.

The City of Lake Worth Utilities minimum temperature of the day for the winter season and maximum temperature of the day for the summer season as the weather variables in the normalization methodology. For each individual year of historical data, the City of Lake Worth Utilities models the relationship between daily low or high temperature and daily peak demand. The City of Lake Worth Utilities evaluates the models at normal temperatures to estimate weather-normalized peak demands. For the purposes of the City of Lake Worth Utilities model, 25°F for the winter and 98°F for the summer are defined to be normal weather.

**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?**

The City of Lake Worth Utilities believes that FRCC has adequately tested the Peninsular Florida reserve margin of 15%. FRCC studies show that a 15% reserve margin adequately provides electric service to the state.

**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?**

The City of Lake Worth Utilities currently uses a 15% reserve margin criterion, which has been sufficient in providing an adequate and reliable source of energy for operational and emergency purposes in Florida.

**Issue 13**      **How does the reliability criteria adopted by the FRCC compare to the reliability criteria adopted by other reliability councils?**

This question would be answered best by FRCC.

**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?**

FRCC has adopted a standard reserve margin criterion of 15% that has been demonstrated to be adequate for meeting the needs of the state. Florida utilities have generally followed the leadership of FRCC and also adopted a planning reserve margin criterion of 15%. The City of Lake Worth Utilities sees no need for the PSC to adopt a 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?**

See Issue 14.

**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?**

The cost of adopting a maximum reserve margin criterion can not be justified for the low probability of the events that occurred on the dates listed above. The City of Lake Worth Utilities has been able to supply our customer needs during these extreme events.

**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?**

This issue is addressed annually in FRCC's Load and Resource Plan and Reliability Assessment reports.

**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?**

Firm out-of-state capacity sales are included in each utility's Ten Year Site Plan and FRCC studies and are properly accounted for in reserve capacity calculations.

**Issue 19**

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

Florida utilities and FRCC are doing prudent planning. No Commission action should be taken at this time.