In re: Generic investigation into DOCKET NO. 981890-EU the aggregate electric utility reserve margins planned for Peninsular Florida.

August 16, 1999

SEMINOLE ELECTRIC COOPERATIVE'S POSITION ON ISSUES

- Issue #1 What is the appropriate methodology, for planning purposes, for calculating reserve margins for individual utilities and for Peninsular Florida?
- Seminole The Methodology for calculating individual utility reserve margins is for each utility to calculate their reserves by the following formula:

Percent Reserve Margin = Firm Resources - Firm Load x 100 Firm Load

Both Firm Load and Firm Resources should be at the time of the annual peak for the utility. Further definition as to what should be included as part of the Firm Resources and Firm Load is covered in Issue No 3.

The methodology for calculating Peninsular Florida reserves should be performed similarly by the FRCC, utilizing the same formula, aggregating the data provided by the State utilities to determine the state Firm Resources and Firm loads at the time of the state annual peak. Using this information, a State reserve margin should be calculated.

- What is the appropriate methodology, for planning purposes, for Issue #2 evaluating reserve margins for individual utilities and for Peninsular Florida?
- The Public Service Commission has the opportunity to evaluate Seminole each utility for planning reserve adequacy during the Ten Year Site Plan review process. If a utility is using inappropriate planning criteria or not carrying adequate reserves, it should be addressed during the State plan review process.

The FPSC has the authority to evaluate reserve margins for Peninsular Florida through the FRCC aggregate plan during the same process. If reserves for Peninsular Florida are found to be deficient, the FPSC is authorized under section 366.05, Florida Statutes to address any inadequacies in the energy grids.

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- 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 (e.g., QF capacity, firm and non-firm purchases and non-committed capacity). Should equipment delays be taken into account?
- Seminole In order to determine the capacity available at the time of peak, all firm generation resources should be counted, including QF capacity under contract (or anticipated to be under contract) and firm purchases. Where non-committed capacity (i.e., planned capacity that is not yet under contract or equipment ordered) is relied upon for future generation capability, SEC believes that generating utilities in Florida should have a "back stop" selfbuild plan. The "back stop" plan should be based upon the utility having within its reasonable control self-build options, contract options, plant upgrades, etc. which could be implemented to achieve adequate reserves in the necessary time period to achieve the required reserve margin.
 - b. Seasonal firm peak demand. Over what period (hourly, 30 min., 15 min.) should the seasonal peak be determined? What is the proper method of accounting for 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 peak demand should be determined using 60 min Seminole integrated data. Integrated hourly demands (i.e., 60 minutes) are the industry standard for reserve planning and the data is readily available. SEC believes that the load forecast models currently used to determine the individual Seminole Member load forecasts and the aggregate total SEC system load forecast are sufficiently accurate and contain adequate uncertainty data (See Issue 10). In order to ensure that all loads are accounted for in the FRCC Peninsular Florida load forecast, interruptible, curtailable, load management and wholesale loads should be considered by the current holder of the contract as ongoing (i.e., continuing on beyond the end of the term through the forecast period). Utilities should note in their Ten-Year plans when these types of loads terminate. New conservation measures should be factored into the forecast if they can be shown to be cost effective, but such inclusion should be at the discretion of the utility.
 - C. Should a percent reserve margin planning criterion be determined on an annual, seasonal, monthly, daily, or hourly basis?

- Seminole Monthly, daily and hourly reserves are not typically planning issues, but rather an operation concern. SEC believes that a percent reserve margin test should apply, on a look ahead basis, to the forecast annual peak. Seminole also believes however, that utilities have an ongoing obligation to maintain the integrity of that reserve margin (i.e., based on expected normal conditions) during peak periods. See Issue No. 18.
- Issue #4 How should generating units be rated (MW) for inclusion in a percent reserve margin planning criterion calculation?
- Seminole The ratings of all generating resources, for reserve margin purposes, should be calculated using the best available resource capability information. Ratings should be specified for both winter and summer peak conditions, representing expected net MW output for ambient temperature conditions considered to be the normal extremes for the specific generator location.

If generating resources have additional capability beyond their normal ratings which a utility desires to rely upon, then such "extended capability" may be included, provided it is reliable and will be made available to others on a basis comparable to its use for the benefit of the reporting system's native load.

- Issue #5 How should individual utility's reserve margins be integrated into the aggregated reserve margin for Peninsular Florida?
- Seminole See response to Issue No. 14.
- Issue #6 Should there be a limit in the ratio of non-firm load to MW reserves? If so, what should that ratio be?
- Yes; a reasonable limit should be placed on the amount of non-firm load a utility relies upon to meet its minimum reserve margin obligation. The appropriate limit should be determined in this docket. Assuming for discussion purposes the required minimum adequacy level in Peninsular Florida is confirmed at 15% for all utilities, it seems reasonably clear that the appropriate limit should not be either extreme (i.e., a utility should not be required to carry 15% reserves in addition to its non-firm loads; neither should a utility be allowed to rely entirely on non-firm load to meet its 15% margin requirement). A reasonable limit is somewhere in-between. See response to Issue No. 16.
- Issue #7 Should there be a minimum of supply side resources when determining reserve margins? If so, what is the appropriate minimum level?
- Seminole See response to Issue No. 6.

- Issue #8 What, if any, planning criteria should be used to assess generation adequacy of individual utilities?
- Seminole See response to Issue No. 14.
- 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?
- Seminole Yes; it is Seminole's understanding that only firm purchases into Peninsular Florida are counted in the calculation by individual utilities when calculating their reserve margins or by the FRCC when calculating the State aggregate reserve margins. Import capability that isn't associated with a firm capacity resource cannot be counted to meet a minimum reserve margin criterion.
- 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?
- M. Seminole Electric Cooperative
- Yes; Seminole's base load forecast for generation planning Seminole purposes is developed using up to 30 years of regional weather history, such history comprising a normalized weather profile. The normalized weather history is used to create Seminole's "base case" load forecast which is the primary driver behind Seminole's generation plan. Supplementing the "base" forecast are high and low forecast scenarios intended to determine the sensitivity of the load forecast to extreme weather and/or changes in consumer growth. The "extreme weather" scenario exhibits the most load sensitivity. The extreme weather scenario predicts the load forecast that would result from a future recurrence of the average of the three highest (or lowest) extremes over the most recent 20 years. Seminole uses these cases to evaluate the reasonability of its planned reserve margin.
- 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 or generation adequacy on a Peninsula Florida basis? If the answer is no, what planning criterion should be used?

Seminole FRCC will address. See response to Issue No. 17.

- 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?
- M. Seminole Electric Cooperative
- Seminole Seminole plans for a minimum 15% reserve margin at the time of its annual peak. Seminole believes 15% is a reasonable minimum for all Florida utilities. In addition, Seminole reviews on a short term basis the need for committing additional reserves over and above the 15% planned installed reserves, based on statewide conditions and/or changes in the availability of Seminole's own reserve capacity.
- Issue #13 How does the reliability criteria adopted by the FRCC compare to the reliability criteria adopted by other reliability councils?
- Seminole FRCC will address.
- 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?
- Seminole No; although Seminole believes a 15% minimum installed reserve margin is a reasonable criterion for individual utilities (i.e., when accompanied by restrictions to prevent over-reliance on non-firm load), a Commission-mandated individual utility reserve standard is not required. The Florida Reliability Coordinating Council (FRCC) has established a 15% reserve margin standard which relies on peer pressure and regulatory oversight to obtain compliance by individual utilities. In addition, bilateral interchange contracts (i.e., reserve-sharing contracts) contain significant penalties for not carrying adequate reserves. The Commission, through the Ten Year Site Plan process, has oversight of both the FRCC and individual utilities. At any time the FPSC, through its review of Ten Year Plans, observes individual utilities planning for less than 15% installed reserve, the Grid Bill provides adequate authority to resolve the problem on a case by case basis. Seminole believes that FPSC oversight of individual utility reserves via the existing Ten Year Site Plan process, in conjunction with FRCC's statewide reserve margin criterion, provides adequate assurance that prudent reserve planning will occur.

If, however, at the conclusion of this docket, the FPSC elects to establish a reserve standard for individual utilities, then a transition period should be established to allow a reasonable time for utilities judged deficient, to take corrective action.

- 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?
- Seminole No; although Seminole believes a 15% minimum installed reserve margin is a reasonable criterion for Penisnsular Florida, a Commission-mandated standard is not required. See response to Issue No. 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?
- Seminole No; although Seminole believes that the Commission may, during the Ten Year Site Plan process, require justification by an individual utility for planned reserves which appear excessive, these situations are case-specific and should be dealt with accordingly.
- 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?
- Seminole FRCC will address. See response to Issue Nos. 14 and 15. Seminole believe that the application of planned installed reserve criterion against a recurrence of historical incidents of extreme weather is a reasonable test of the adequacy of the minimum criterion (i.e., provided reasonable assumptions are used for resource availability and recognizing that the endresult will be a judgement call which involves placing an economic value on further minimization of outage risk).
- 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?
- Yes; the imposition of an adequacy standard on Florida utilities is relatively meaningless in the absence of related criteria which limit the utilities' ability to make non-recallable sales outside Peninsular Florida during peak seasons. In a worst case scenario, a utility could file a 10-Year Site Plan which shows it meeting the minimum adequacy criterion (assumed here to be 15%), and in the very next peak season, make non-recallable sale commitments which render it inadequate (i.e., below 15%). Had the utility predicted (or acknowledged)

these sales in the 10 Year Site Plan, its installed reserves would have been considered inadequate.

The obvious answer is that any resulting minimum reserve margin requirement must be considered an ongoing obligation, not just a once a year snapshot. A utility should always be able to ensure that it is maintaining its planned reserves. What this means is a utility should not be allowed to sell any portion of its minimum installed reserves in a form that is non-recallable to meet Peninsular Florida load during a capacity emergency.

- Issue #19 Based on the resolution of Issues 1 through 18, what follow-up action, if any should the commission pursue?
- Seminole The Commission should continue its oversight of aggregate and individual utility planning criteria via the Ten Year Site Plan process.

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

August 16, 1999

NOTICE OF SERVICE OF SEMINOLE ELECTRIC COOPERATIVE'S POSITION ON ISSUES (NUMBER 1-19)

I HEREBY CERTIFY that Seminole Electric Cooperative's Position on Issues (number 1-19) have been furnished via U.S. Mail this 16th day of August, 1999 to the following:

Reedy Creek Improvement District Willard Smith/Fran Winchester Post Office Box 10175 Lake Buena Vista, FL 32830

City of Tallahassee Richard G. Feldman 300 S. Adams Street Tallahassee, FL 32301

McWhirter Reeves McGlothlin Vicki Gordon Kaufman 117 South Gadsden Street Tallahassee, FL 32301

Ausley & McMullen James Beasley Post Office Box 391 Tallahassee, FL 32301 Utilities Commission, City of New Smyrna Beach Ronald L. Vaden Post Office Box 100 New Smyrna Beach, FL 32170

Office of Public Counsel John Roger Howe 111 W. Madison Street, Rm. 812 Tallahassee, FL 32399

Beggs & Lane Jeffrey Stone Post Office Box 12950 Pensacola, FL 32576

FL Electric Cooperative Assoc. Michelle Hershel Post Office Box 590 Tallahassee, FL 32302 Legal Environmental Assistance Foundation Deb Swim 1114 Thomasville Road, Suite E Tallahassee, FL 32303 Florida Reliability Coordinating Council Ken Wiley 405 Reo Street, Suite 100 Tampa, FL 33609

Landers & Parsons Scheff Wright Post Office Box 271 Tallahassee, FL 32302 Moyle Flanigan Jon Moyle, Jr. 210 South Monroe Street Tallahassee, FL 32301

Steel Hector and Davis Matthew M. Childs 215 South Monroe Street Suite 601 Tallahassee, FL 32301 City of Homestead James Swartz 675 N. Flagler Street Homestead, FL 33030

City of Lake Worth Utilities Harvey Wildschuetz 1900 Second Ave., North Lake Worth, FL 33461 Young VanAssenderp & Varnadoe Roy Young P.O. Box 1833 Tallahassee, FL 32302

Florida Power Corporation Jim McGee Post Office Box 14042 St. Petersburg, FL 33733

City of Lakeland Gary Lawrence 501 East Lemon Street Lakeland, FL 33801

Gainesville Regional Utilities Raymond O. Manasco, Jr. Post Office Box 147117 Station A-138 Gainesville, FL 32614-7117 Jacksonville Electric Authority Tracy E. Danese 21 West Church Street Tower 16 Jacksonville, FL 32202 Kissimmee Utility Authority A.K. (Ben) Sharma Post Office Box 423219 Kissimmee, FL 34742

Florida Municipal Power Agency Frederick Bryant P.O. Box 3209 Tallahassee, FL 32315 Orlando Utilities Commission T. B. Tart Post Office Box 3193 Orlando, FL 32802

Thornton Williams & Assoc. Paul Sexton P.O. Box 10109 Tallahassee, FL 32302

THOMAS J. MAIDA
Florida Bar No. 0275212
FOLEY & LARDNER
300 East Park Avenue
Tallahassee, Florida 32301
(850) 222-6100

Fax: (850) 224-3101

Attorneys for: Seminole Electric Cooperative

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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DOCKET NO. 981890-EU

August 16, 1999

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that one true and correct copy of Seminole Electric Cooperative's Position on Issues (number 1 –19) have been furnished by hand delivery to Robert V. Elias, Florida Public Service Commission, Gerald L. Gunter Building, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399, and that one true and correct copy has been furnished by U.S. Mail this 16th day of August, 1999, to the following:

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McWhirter Reeves McGlothlin Vicki Gordon Kaufman 117 South Gadsden Street Tallahassee, FL 32301

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Kissimmee Utility Authority A.K. (Ben) Sharma Post Office Box 423219 Kissimmee, FL 34742 Orlando Utilities Commission T. B. Tart Post Office Box 3193 Orlando, FL 32802 Florida Municipal Power Agency Frederick Bryant P.O. Box 3209 Tallahassee, FL 32315 Thornton Williams & Assoc. Paul Sexton P.O. Box 10109 Tallahassee, FL 32302

THOMAS J. MAIDA

Florida Bar No. 0275212

FOLEY & LARDNER

300 East Park Avenue

Tallahassee, Florida 32301

(850) 222-6100

Fax: (850) 224-3101

Attorneys for: Seminole Electric Cooperative