

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for  
determination of need for the  
Osprey Energy Center in Polk  
County by Seminole Electric  
Cooperative and Calpine  
Construction Finance Company,  
L.P.

DOCKET NO. 001748-EC  
ORDER NO. PSC-01-0421-FOF-EC  
ISSUED: February 21, 2001

The following Commissioners participated in the disposition of  
this matter:

E. LEON JACOBS, JR., Chairman  
J. TERRY DEASON  
LILA A. JABER  
BRAULIO L. BAEZ  
MICHAEL A. PALECKI

APPEARANCES:

JOSEPH A. MCGLOTHLIN, ESQUIRE, McWhirter Reeves McGlothlin,  
117 South Gadsden Street, Tallahassee, Florida 32301  
On behalf of Seminole Electric Cooperative, Inc. (Seminole)

ROBERT SCHEFFEL WRIGHT, ESQUIRE, JOHN T. LAVIA, III, ESQUIRE,  
and DIANE K. KIESLING, ESQUIRE, Landers & Parsons, P.A., 310  
West College Avenue, Tallahassee, Florida 32301  
On behalf of Calpine Construction Finance Company, L.P.  
(Calpine)

RACHAEL N. ISAAC, ESQUIRE, and ROBERT V. ELIAS, ESQUIRE,  
Florida Public Service Commission, 2540 Shumard Oak Boulevard,  
Tallahassee, Florida 32399-0850  
On behalf of Commission Staff (Staff).

HAROLD A. MCLEAN, ESQUIRE, Florida Public Service Commission,  
2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850  
Counsel to the Commissioners.

DOCUMENT NUMBER-DATE

02414 FEB 21 01

FILED AT TALLAHASSEE, FLORIDA

ORDER NO. PSC-01-0421-FOF-EC  
DOCKET NO. 001748-EC  
PAGE 2

FINAL ORDER GRANTING PETITION TO DETERMINE NEED  
FOR ELECTRICAL POWER PLANT

BY THE COMMISSION:

CASE BACKGROUND

Pursuant to Section 403.519, Florida Statutes, and Rule 25-22.081, Florida Administrative Code, Calpine Construction Finance Company, Inc. (Calpine) and Seminole Electric Cooperative, Inc. (Seminole) filed a Joint Petition for Determination of Need for the Osprey Energy Center, to be located in Polk County, Florida, on December 4, 2000. An amended petition was filed on January 8, 2001.

The Osprey Energy Center will be developed by Calpine Construction Finance Company, which will own the project. The proposed power plant is a natural-gas fired, combined cycle power plant with 529 MW of net generating capacity. The expected in-service date of the unit is the second quarter of 2003. The project will have an expected heat rate of 6,800 Btu/kWh and will include two advanced technology combustion turbine generators, two matched heat recovery steam generators that include duct-firing capability, and one steam turbine generator. The project will be interconnected to the Peninsular Florida grid at the TECO Recker substation. Calpine currently owns generating assets within Florida and has filed a ten-year site plan with the Commission.

On December 14, 2000, Seminole and Calpine entered into a purchased power agreement (PPA). Seminole is a non-profit generation and transmission cooperative organized under Chapter 425, Florida Statutes. Under the PPA, 350 MW is committed on a firm basis to Seminole from the period June 1, 2004, through May 31, 2009. Subject to reopener provisions in the contract, the 350 MW may be committed to Seminole in five year increments, beginning in June 2009 through May 22, 2020. The contract also establishes a notice provision for capacity prior to June 1, 2004. Further, subject to notice provisions, terms and pricing are established for the total plant capacity over 350 MW for the period June 2004 through May 2020.

No parties intervened in this docket. We held a hearing in this matter on February 12, 2001. After consideration of the evidence, the arguments of the parties, and our staff's recommendation, we voted to grant Seminole and Calpine's joint petition for a determination of need. This Order constitutes our final agency action and report as required by Section 403.507(2)(a)(2), Florida Statutes, and as provided for in Section 403.519, Florida Statutes.

I. MOTION FOR EXPEDITED DECISION AND PROPOSED STIPULATION

On January 29, 2001, the parties filed their Joint Petitioners' Motion for Expedited Decision, which included a request for a bench decision. The parties stated that by granting this motion, this Commission would conserve the Commission's and the parties' time and resources, and promote a speedy, orderly, efficient, and inexpensive administration of justice. Upon consideration of the arguments, we granted the Motion and Request for a Bench Decision.

In addition, the parties have come to agreement on a proposed stipulation, which provides that Calpine will continue to file ten-year site plans and other information requested by the Commission. We hereby approve this proposed stipulation.

II. DETERMINATION OF NEED PURSUANT TO SECTION 403.519, FLORIDA STATUTES

Section 403.519, Florida Statutes, sets forth the matters that this Commission must consider in determining the need for an electrical power plant. The statute states in pertinent part:

In making its determination, the commission shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, and whether the proposed plant is the most cost-effective alternative available. The commission shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its member which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant.

Upon consideration of the record evidence discussed below and in light of the criteria set forth in Section 403.519, Florida Statutes, we hereby grant Seminole and Calpine's Amended Joint Petition for Determination of Need for an Electrical Power Plant.

A. Seminole and Calpine as "Applicants" and Full Commitment of the Osprey Energy Center

Seminole, as an electric cooperative organized pursuant to Chapter 425, Florida Statutes, and as an entity with load-serving responsibility for distribution member cooperatives that provide service to their member/owners at retail in Florida, is an "electric cooperative" within the meaning of Section 403.503(13), Florida Statutes, and therefore we find Seminole to be a proper applicant for a determination of need pursuant to Section 403.519, Florida Statutes. We further find Calpine, as the entity that will own and operate the Osprey Energy Center, the output of which is committed to Seminole pursuant to the PPA, is an appropriate joint applicant pursuant to the Commission's decisions and the Florida Supreme Court's opinion in Nassau Power Corp. v. Deason, 641 So. 2d 396 (Fla. 1994).

In addition, we find the output of the proposed Osprey Energy Center to be fully committed for use by Florida retail electric customers in compliance with the Florida Supreme Court's decision in Tampa Electric Co. et. al. v. Garcia. Under the purchased power agreement with Seminole (Exhibit No. 13), 350 MW of capacity is firmly committed to Seminole from the period June, 2004 through May, 2009. Subject to reopener provisions, the 350 MW may be committed to Seminole in five year increments, beginning in June, 2009 through May 22, 2020. The contract also establishes a notice provision for capacity prior to June 1, 2004. Further, subject to notice provisions, terms and pricing are established for the total plant capacity over 350 MW for the period June, 2004 through May, 2020.

We believe the firm commitment for 350 MW out of the total plant capacity of 529 MW is sufficient to meet the requirement that the capacity be fully committed. Witness Woodbury stated that in lieu of the contract, Seminole would have built a similar combined cycle unit with the same total capacity to meet its need. Seminole provided sufficient evidence to assert that a self-build option of

a near identical combined cycle unit was the next most cost-effective option to meet its need.

B. Need for Electric System Reliability and Integrity

We find that the Osprey Energy Center is needed, when taking into account Seminole Electric Cooperative's need for electric system reliability and integrity. According to the prefiled testimony of Seminole witness Garl Zimmerman, Seminole uses a 15% reserve margin as its planning criterion. Witness Zimmerman also testified that Seminole is occasionally required to maintain total reserves which exceed 15%, due to Seminole's share of operating reserves allocated by the Florida Reliability Coordinating Council (FRCC).

Witness Zimmerman testified that Seminole began its analysis of various capacity alternatives by determining its reliability need. Based on our review of the load forecasts for each of the eleven systems comprising Seminole's retail load used in this analysis, we believe that Seminole's aggregate load forecasts are based on appropriate forecast models and assumptions. In addition, we find that the projected Mwh, and summer and winter kW forecasts presented in Witness Lawton's testimony (Exhibit No. 3) are reasonable.

In order to meet its reserve margin standard, Seminole has a reliability need beginning in 2004. As depicted in Exhibit No. 2, if no capacity additions were made, Seminole's reserve margin would be 11.6% in 2004. Due to load growth and the termination of two purchased power agreements, Seminole's reserve margin is expected to decline to a negative 14.9% in 2009. In order to maintain a 15% reserve margin, this indicates a reliability need of 88 MW in 2004, growing to 911 MW by 2009.

According to Exhibit No. 2, the contract for 350 MW firm will satisfy Seminole's reliability need through 2006. The contract also provides Seminole with the option of obtaining additional capacity, up to the total plant capacity of 529 MW. This additional capacity, along with a portion of the 350 MW firm capacity during 2004-2006, is not projected to be necessary to meet the reserve criterion of 15%. However, this capacity provides greater assurance that the reserve criterion will be met in the

event that peak loads are higher than currently anticipated. This additional capacity also provides Seminole with the flexibility to reduce the use of potentially less economic resources.

C. Need for Adequate Electricity at a Reasonable Cost

We find that the Osprey Energy Center is needed, taking into account Seminole Electric Cooperative's need for adequate electricity at a reasonable cost. Seminole provided sufficient evidence that the purchased power contract with Calpine is the most cost-effective option to meet its need. The contract provides substantial savings over the next most attractive option, a self-build option of a near identical combined cycle unit of similar total capacity. Confidential information in Exhibit No. 2 provides the specific savings of the Calpine proposal relative to the next most attractive options over the five year period beginning in 2004. Seminole also provided evidence in confidential Late-Filed Exhibit 1 to Witness Zimmerman's deposition (Exhibit No. 13) that the Calpine contract is less costly than the alternatives in each year of the five year period.

Witness Woodbury stated that, if the contract with Calpine were not available, Seminole would build a near identical combined cycle unit. Seminole provided sufficient evidence that this self-build option would be the next most cost-effective option. In addition to the reduced cost, as stated by Witness Woodbury, the Calpine contract provides Seminole with added flexibility over the self-build option. The contract provides 350 MW on a firm basis from June 2004 through May 2009. Subject to reopener provisions, this 350 MW may be committed in five year increments through May 22, 2020. The contract also provides Seminole with the option to obtain additional capacity, up to the full 529 MW from the in-service date until May 2020. The reopener provisions and option to take additional capacity, provide Seminole with the flexibility to adjust to meet current market conditions or unexpected demand. Given the uncertainty in the current electric market, as stated by Witness Woodbury, there is a benefit to Seminole of diversifying its supply-side options to include ownership, long-term and short-term contracts.

D. Most Cost-Effective Alternative

We find that the purchased power agreement for capacity from the Osprey Energy Center is the most cost-effective alternative available to meet the needs of Seminole Electric Cooperative, Inc. According to the testimony of Witness Zimmerman, Seminole used PROMOD IV and PROSCREEN software to simulate the operation of its system over time, and calculated the net present value of revenue requirements associated with adding various increments of capacity. Seminole modeled the present worth revenue requirements (PWRR) of various technologies, including combustion turbines, combined cycles, and pulverized coal units. Pulverized coal units were excluded at an early stage of the evaluation due to the high capacity factor needed to make the units cost-effective. This would require Seminole to rely on off-system sales to justify a pulverized coal unit. Witness Woodbury also testified that pulverized coal units were excluded due to the long construction lead times necessary. The outcome of this initial stage of the analysis was that a combined cycle unit would be the best self-build option to meet Seminole's need.

After Seminole determined the reliability need and analyzed the impact of various technologies, a request for proposals (RFP) was issued. The RFP requested both demand and supply-side options to meet the need, and stated that proposals in the range of 160 to 600 MW would be considered. Seminole received 14 supply-side proposals in response to the RFP. Seminole evaluated the PWRR of these proposals, the purchased power agreement with Calpine, and a self-build option of a combined cycle unit. Seminole's analysis shows that the Calpine purchased power agreement is the most cost-effective option for a five year period beginning in 2004, and provides substantial savings over the next most cost-effective option, Seminole's self-build proposal. Confidential information in Exhibit No. 2, provides the total savings of the Calpine proposal relative to the self-build options and the next best alternatives. Confidential information in Late-Filed Exhibit 1 of Witness Zimmerman's deposition (Exhibit No. 13) shows that the Calpine contract is more cost-effective than the next most attractive options in each year of the five year contract period.

We find that the fuel price forecasts used by Seminole in its cost-effectiveness analysis are reasonable. Further, as stated by

Witness Zimmerman, all the proposals in the final analysis were natural gas fired. Therefore, changes in the natural gas forecast would not significantly affect the cost-effectiveness rankings of the proposals.

Based on our review of the financial assumptions used in Seminole's cost-effectiveness analysis, we find them to be reasonable. The 5.85% discount rate used is reasonable because it is based on Seminoles' cost of long term capital as guaranteed by the Rural Utilities Services. The 2.7% inflation rate is reasonable based on rates used in other need determinations and based on Calpine's original analysis using 3.0%. In summary, we find the Calpine purchased power contract to be the most cost-effective alternative available to meet Seminole's need.

E. Conservation Measures

We find that there are no conservation measures taken by or reasonably available to Seminole, its member cooperative utility systems, or Calpine Construction Finance Company that might mitigate the need for the Osprey Energy Center. Seminole's rate structure is properly designed to provide incentives to lower on-peak demand. Further, Seminole requested cost-effective demand-side proposals in its RFP, but received none. Moreover, based upon reasonable assumptions, projections of the Osprey Project's operations indicate that the Project can be expected to increase the overall efficiency of electricity production and natural gas use in Florida, thereby furthering the express purposes of the Florida Energy Efficiency and Conservation Act, Sections 366.80-366.82 and 403.519, Florida Statutes.

Neither Seminole nor its members are currently subject to the conservation goals requirements of FEECA. However, Seminole's members offer various demand-side management (DSM) programs. According to the testimony of Garl Zimmerman, Seminole's projections of its power supply needs reflect the effect of the members' conservation and DSM programs.

F. Fuel Supply and Delivery

Calpine's affiliate, Calpine East Fuels, L.L.C., has entered into a Precedent Agreement with Gulfstream Natural Gas System,



L.L.C. ("Gulfstream") pursuant to which Gulfstream and Calpine East Fuels, L.L.C., will enter into a 20-year gas transportation service agreement. Pursuant to that agreement, Gulfstream will provide firm natural gas transportation service for the anticipated daily fuel supply required by the Osprey Project. Gulfstream's pipeline will be interconnected to those gas treatment plants, gas processing plants, and interstate gas transmission systems with supply located in the vicinity of Mobile Bay, Alabama and Pascagoula, Mississippi. There is an estimated 2 billion cubic feet per day of gas supply available in that geographic area. Calpine East Fuels will purchase natural gas for the Osprey Project from gas producers and gas marketing companies that operate in this market.

Calpine provided information confirming that the Gulfstream permitting process is on schedule and is therefore expected to be operational prior to the in-service date of the Osprey Energy Center. Further, the plant location is in close proximity to the FGT system, which may offer an additional source for gas transportation.

G. Time of Construction

It appears that if the Osprey Project is not constructed and brought into commercial operation as proposed by Seminole and Calpine, there could be lost reliability and cost reduction benefits to Seminole and potentially to other Peninsular Florida load-serving and retail-serving utilities that might purchase the Project's output. The potential lost reliability benefits include: (a) Seminole not meeting its reserve margin criterion if the Osprey Project is not brought into commercial operation by June 1, 2004, and (b) reduced planning and operational flexibility for Seminole, if the Project is not brought into commercial operation in June, 2003 as scheduled. The lost cost reduction benefits would translate into higher rates for the member-consumers of Seminole's member cooperatives and for the customers of other Peninsular Florida load-serving utilities that might elect to purchase the Project's output, and are estimated to be on the order of \$100 million to \$200 million per year, subject to the Project's output being contractually committed to Seminole or to other Peninsular Florida utilities. Additional potential adverse consequences of delay include lost improvements in the overall efficiency of

electricity generation in Florida and lost environmental emissions reductions associated with and resulting from the efficiency gains expected from the Project's operations.

### III. CONCLUSION

We hereby grant Seminole's and Calpine's amended joint petition to determine the need for the Osprey Energy Center. The record shows that Seminole's purchased power agreement with Calpine is the most cost-effective option available to meet Seminole's capacity needs beginning in 2004. There are no cost-effective conservation or demand-side measures available to offset Seminole's need, and the purchased power agreement is the lowest cost supply-side option available.

We base our determination on the understanding that this need order is specific to the Osprey project, and that Seminole and Calpine are co-applicants. Our analysis has focused on the cost-effectiveness of the purchased power agreement from Seminole's perspective. There are conditions subsequent to our decision which may allow Seminole to terminate the purchased power agreement. In light of this, Calpine shall report on the status of the purchased power agreement with Seminole in Calpine's annual ten-year site plan.

Based on the foregoing, it is

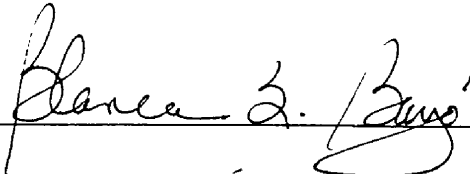
ORDERED by the Florida Public Service Commission that the Amended Joint Petition of Seminole Electric Cooperative, Inc. and Calpine Construction Finance Company, Inc. to determine need for a proposed power plant in Polk County is hereby granted. It is further

ORDERED that Calpine Construction Finance Company, Inc. shall report on the status of the purchased power agreement with Seminole Electric Cooperative, Inc. in its annual ten-year site plan. It is further

ORDERED that this Docket shall be closed.

ORDER NO. PSC-01-0421-FOF-EC  
DOCKET NO. 001748-EC  
PAGE 11

By ORDER of the Florida Public Service Commission this 21st  
day of February, 2001.

  
\_\_\_\_\_  
BLANCA S. BAYÓ, Director  
Division of Records and Reporting

( S E A L )

RNI

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), 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, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, 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 and/or wastewater 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 Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.