

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Petition to determine need for Treasure Coast Energy Center Unit 1, proposed electrical power plant in St. Lucie County, by Florida Municipal Power Agency.

DOCKET NO. 050256-EM  
ORDER NO. PSC-05-0781-FOF-EM  
ISSUED: July 27, 2005

The following Commissioners participated in the disposition of this matter:

BRAULIO L. BAEZ, Chairman  
J. TERRY DEASON  
RUDOLPH "RUDY" BRADLEY  
LISA POLAK EDGAR

FINAL ORDER GRANTING PETITION FOR DETERMINATION OF NEED  
FOR PROPOSED ELECTRICAL POWER PLANT

APPEARANCES:

GARY V. PERKO, Esquire, and CAROLYN S. RAEPPE, Esquire, Hopping Green & Sams, P.A., 123 South Calhoun Street, Tallahassee, FL 32301,  
On behalf of Florida Municipal Power Agency.

FREDERICK M. BRYANT, ESQUIRE, Florida Municipal Power Agency, P.O. Box 3209, Tallahassee, Florida 32315-3209  
On behalf of Florida Municipal Power Agency.

MARTHA CARTER BROWN, ESQUIRE, Florida Public Service Commission, General Counsel's Office, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850  
On behalf of Florida Public Service Commission Staff.

BY THE COMMISSION:

Background

On April 13, 2005, the Florida Municipal Power Agency (FMPA) filed a petition for determination of need for a proposed electrical power plant pursuant to section 403.519, Florida Statutes, and Rule 25-22.080, Florida Administrative Code. The proposed plant is a 300 megawatt (MW) natural gas-fired, combined cycle unit to be located at the Treasure Coast

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Energy Center (TCEC), a new site to be constructed in St. Lucie County, Florida. FMPA proposes to place the unit in commercial service by the Summer of 2008.

We held a formal administrative hearing on this matter July 8, 2005. The City of Vero Beach intervened in the docket, but withdrew its intervention two days before the hearing. At the hearing, after taking all evidence, we considered the agreement between our staff and FMPA regarding the appropriate resolution of all issues identified for the case. We approved the agreed positions by a bench decision, thereby resolving all issues and granting FMPA's petition for determination of need. This Order reflects that decision and serves as our report under the Power Plant Siting Act, as required by section 403.507(2)(a)2, Florida Statutes.

#### Standard of Review

Section 403.519, Florida Statutes, sets forth those matters that we must consider in a proceeding to determine the need for a proposed electrical power plant:

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 members which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant.

#### Findings

##### *Need for Electric System Reliability and Integrity*

We find that there is a need for the proposed TCEC Unit 1, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, Florida Statutes. Through its planning process, FMPA identified TCEC Unit 1 as its next planned generating addition subject to the Power Plant Siting Act. FMPA needs TCEC Unit 1 to meet its capacity requirements for an 18 percent summer reserve margin in 2008 and a winter 15 percent reserve margin in winter 2008/9. Without the TCEC Unit 1 addition, FMPA's reserve margin will decrease to approximately 10.1 percent by winter 2008/9, 74 megawatts short of the required minimum. Reserves would also fall to 10.9 percent by summer 2008, 102 megawatts short of the required minimum. Without adding capacity, FMPA's reserves continue to decrease until summer 2010, when 282 MW of the 300 MW capacity of the unit is needed to meet reserve requirements.

In determining its capacity needs, FMPA developed a 20-year load and net energy for load forecast. FMPA's forecast assumptions, regression models, and the projected system peak demands are appropriate for use in this docket. FMPA's forecasted annual growth rates of its peak demands and net energy for load appear to be reasonable. FMPA appropriately assessed

the impact of the City of Vero Beach's withdrawal in 2010 of its load and available generating capacity.

In addition to meeting FMPA's reserve needs, the TCEC Unit 1 will also enhance the reliability and integrity of FMPA's electric system by utilizing the highly efficient F-Class combined cycle technology with the ability to burn two different types of fuel (natural gas and ultra-low sulfur diesel oil). The dual-fuel capability of the unit provides operational flexibility. In addition, TCEC Unit 1 will benefit from two interconnections to Florida Power and Light Company's (FPL) transmission system. This will allow FMPA to better serve its members in the FPL transmission grid, and help the State to mitigate flow problems from the north to the south.

*Need for Adequate Electricity at a Reasonable Cost*

We find that there is a need for the TCEC Unit 1, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519, Florida Statutes. As stated above, TCEC Unit 1 is needed to maintain FMPA's reserve margin criteria. FMPA performed an extensive analysis of available supply-side and demand-side options. FMPA's internal analysis of supply-side options included conventional natural gas- and coal-fired technologies, as well as non-conventional and nuclear technologies. Although FMPA, an association of municipal utilities, is not required to conduct a request for proposals (RFP) to fill its capacity needs, it did so in this case. FMPA received 5 proposals from 3 bidders in response to its RFP. FMPA's analysis of the bids it received revealed that the TCEC Unit 1 is the most cost-effective option available, with a projected cumulative present worth cost savings over the lowest cost supply-side alternative. None of the bidders challenged that determination. The TCEC Unit 1 is highly efficient and takes advantage of nearby electric, natural gas, and future treated sewage effluent infrastructure to lower the cost of installation. The proven technology is also very reliable.

The fuel price forecasts and economic parameters used in FMPA's analysis appear to be reasonable for planning purposes. Based on responses to discovery conducted by our staff, FMPA has provided assurance that natural gas transportation and natural gas supply will adequately be provided at reasonable costs to TCEC Unit 1 by means of a lateral interconnected to Florida Gas Transmission Company's transmission system. FMPA has committed to provide a copy of its fuel transportation and supply contracts when they are executed.

*No Mitigating Conservation Measures*

We find that there are no conservation measures taken by or reasonably available to FMPA which might mitigate the need for the proposed TCEC Unit 1. As a wholesale supplier of electric energy to its members, FMPA is not directly responsible for demand-side management (DSM) programs. Nevertheless, FMPA evaluated the cost-effectiveness of 87 commercial/industrial DSM measures and 54 residential DSM measures. FMPA used the Florida Integrated Resource Evaluator (FIRE) model, which the Commission has found to be appropriate for evaluating conservation and DSM measures. FMPA assumed that rates for all members were equal to the rates from Keys Energy Services, the highest rates for an FMPA

member. None of the potential measures passed the rate impact test in FMPA's initial analysis. Concerns were raised that using the higher rates of Keys Energy Services would overstate the lost revenues in the Rate Impact Measure (RIM) test for members of FMPA with lower rates, and thus understate RIM results for those members. To address this concern, FMPA updated the DSM analysis, using residential rates for the City of Starke and commercial rates for Kissimmee Utility Authority, the lowest rates of the All-Requirements members for the respective rate classes. FMPA found that one DSM measure, Low Emissivity Glass, passed the RIM test; however, this measure did not pass the Participant or Total Resource tests. Thus, FMPA has adequately demonstrated that there are no cost-effective conservation measures reasonably available that would avoid or defer the need for TCEC Unit 1.

*Most Cost-Effective Alternative Available*

We find that the proposed TCEC Unit 1 is the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes. It provides the most cost-effective solution to satisfy FMPA's forecast capacity requirements in 2008. As noted above, the project results in a projected cumulative present worth savings over the lowest cost alternative submitted in response to FMPA's RFP. FMPA conducted an extensive analysis of available demand-side and supply-side options, including the proposals it received in response to its RFP. FMPA also performed several sensitivity analyses, in which FMPA varied the assumed fuel prices, load growth, capital costs, and discount rate for the expansion plans containing TCEC Unit 1 and the next least cost alternative. The results of the sensitivity analyses support the conclusion that TCEC Unit 1 is the least cost alternative.

Conclusion

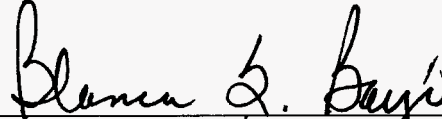
Based on the foregoing, we grant FMPA's petition to determine the need for the proposed Treasure Coast Energy Center Unit 1. It is the most cost-effective option available to meet FMPA's need for additional capacity to meet its reserve margin criteria beginning in 2008. There are no cost-effective conservation or demand-side measures available to offset the need. TCEC Unit 1 will provide FMPA adequate electricity at a reasonable cost and it will contribute to the reliability and integrity of FMPA's system as well as Peninsular Florida. As mentioned above, FMPA has committed to provide a copy of its fuel transportation and supply contracts when they are executed.

It is therefore

ORDERED by the Florida Public Service Commission that the Florida Municipal Power Agency's petition for determination of need for its proposed Treasure Coast Energy Center Unit 1 is granted. It is further

ORDERED that this docket shall be closed.

By ORDER of the Florida Public Service Commission this 27th day of July, 2005.



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BLANCA S. BAYÓ, Director  
Division of the Commission Clerk  
and Administrative Services

( S E A L )

MCB

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 the Commission Clerk and Administrative Services, 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 the Commission Clerk and Administrative Services 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.