

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: August 3, 2006

TO: Director, Division of the Commission Clerk & Administrative Services (Bayó)

FROM: Division of Economic Regulation (Sickel, Haff, Windham)
Office of the General Counsel (Brown)

RE: Docket No. 060387-EQ – Request for approval of contract with a qualifying facility for purchase of firm capacity and energy between Florida Power Corporation d/b/a Progress Energy Florida, Inc. and Florida Biomass Energy Group, L.L.C.

AGENDA: 08/15/06 – Regular Agenda – Proposed Agency Action -- Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Deason

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\060387.RCM.DOC

Case Background

On May 25, 2006, Progress Energy Florida, Inc. (PEF) filed a petition seeking approval of a negotiated contract for the purchase of firm capacity and energy from Florida Biomass Energy Group, LLC (Florida Biomass). Florida Biomass proposes to construct, own, and operate an electric generating plant to be located on a farm that will produce a biomass fuel crop called "e-grass". The crop will be grown and harvested in a continuous cycle, for conversion into a liquid fuel for a traditional combined cycle generator. The projected in-service date for the system is December 2009, and the contract period is 25 years.

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Florida Biomass has recently been certified by the Florida Public Service Commission as a qualifying facility (QF) based on the exclusive use of renewable energy, after start-up, for the proposed electric generation.¹

This recommendation addresses PEF's petition for approval of the negotiated contract with Florida Biomass, and provides an overview of some unique applications of technology that are critical to this planned installation. The Commission has jurisdiction in this matter pursuant to section 366.051 and Section 366.081, Florida Statutes.

¹ See order No. PSC-06-0596-PAA-EQ, issued July 7, 2006, in Docket No. 060367-EQ, In re: Petition for Certification as a qualifying facility pursuant to Rule 25-17.080, F.A.C., by Florida Biomass Energy Group, L.L.C.

Discussion of Issues

Issue 1: Should the Commission approve Progress Energy Florida's (PEF) petition for approval of the negotiated contract for firm capacity and energy from Florida Biomass Energy Group, LLC (Florida Biomass)?

Recommendation: Yes. Over the 25-year term of this negotiated contract, estimated capacity and energy payments to Florida Biomass have been shown to result in net present value savings of \$39 million to PEF's ratepayers, based on a projected generating capacity of 116.6 megawatts (MW). (Sickel, Haff, Windham)

Staff Analysis: In the Commission's review of negotiated firm energy and capacity contracts for purpose of cost recovery, Rule 25-17.0832(3), Florida Administrative Code, directs consideration of the utility's need for power, the cost effectiveness of the contract, the security provisions for capacity payments, and QF performance guarantees. Staff's evaluation of each of these factors is provided in the following discussion.

Need for Power

The 2006 Ten Year Site Plan filed by PEF shows projected growth of about 200 MW of demand each year. Based on PEF's reserve margin criterion of 20%, additional capacity is needed by 2009. The next planned unit is the Bartow Repowering Project, currently scheduled to come on line in June 2009. There are six additional units planned through 2015 to meet PEF's demonstrated need for capacity in that period.

By the terms of the negotiated contract, the Florida Biomass combined cycle generator is to be operational no later than December 1, 2009, with net output projected to be 116 MW. PEF has not included the Florida Biomass contract as a firm resource in its 2006 Ten Year Site Plan. If the contract is approved, then the projected committed capacity can be included as a firm resource.

Cost-Effectiveness

The contract was negotiated when the combined cycle Hines Unit 5 was PEF's next planned generating unit. On that basis, PEF estimated the capacity and energy payments over the 25-year term of the negotiated contract would produce a savings of \$39 million net present value to PEF's ratepayers. Since the majority of these savings are based on fuel costs, the actual savings could vary significantly.

Full capacity payments are contingent upon the Florida Biomass generator maintaining a specified confidential 12-month rolling average capacity factor. Below a specified minimum capacity factor, also confidential, there is no capacity payment and energy will be purchased at "as available" rates. Staff has reviewed the confidential information and it appears reasonable.

The agreement between PEF and Florida Biomass means that the utility and its body of ratepayers will not be subject to the high costs and risks that are associated with the research and design aspects of this project. Payments to Florida Biomass are entirely contingent upon the

unit's demonstrated capacity and energy production. In contrast to savings in the cost for energy actually provided by Florida Biomass, possible future benefits cannot be quantified at present. At a minimum, benefits include fuel diversity, use of a renewable energy source, and fuel price stability. Once the plant proves successful, replication offers an opportunity to multiply any initial benefit

In addition to savings for the capacity and energy provided by the Florida Biomass generator, the contract establishes an arrangement and pricing for PEF to purchase renewable energy credits (RECs) that will be associated with the electric energy produced from the Florida Biomass Facility. Staff has reviewed the confidential pricing and specific requirements for notification by PEF as to purchases, and believes there is benefit to PEF in the provisions agreed upon by the parties. Any purchase of RECs would be subject to Commission review for prudent and cost effective management. The contract provides for possible sale of RECs by Florida Biomass, singly or in conjunction with PEF. Any revenue to PEF from REC sales will be credited to the utility's ratepayers through PEF's fuel recovery clause, which would improve the cost effectiveness of the contract.

Security for Capacity Payments

The contract between PEF and Florida Biomass does not contain any early capacity payments, so no form of security is required. PEF's capacity and energy payments to Biomass, both on an annual and cumulative basis, are expected to be less than avoided cost. Consistent with agreements for purchase power contracts based on non-renewable resources, this contract includes completion and performance security deposits which may be provided by letter of credit or cash deposit. The amount is confidential.

Performance Guarantee

Staff recognizes that this project incorporates numerous innovative designs that are not yet proven reliable, and so has no guarantee of success. However, the contractual agreement between PEF and Biomass contains provisions that protect PEF and the utility's ratepayers if the renewable generation project does not work as well as it is anticipated. Performance provisions of the contract require that the 12-month rolling average of the monthly capacity factor will be above a specified minimum in order for Florida Biomass to receive full capacity payment. Further, if production drops below a specified minimum threshold, no capacity payment is due and payments to the QF would take the form of payments for "as available energy." The committed capacity basis for the capacity factor will be determined by actual performance of the unit.

In conclusion, this negotiated contract between PEF and Florida Biomass is an opportunity to encourage a renewable energy resource. In the event that the project is not successful within the limits of this contract, there will be no out-of-pocket expense for PEF. The contract meets all requirements and rules governing QFs, and represents an opportunity to improve the status quo. The Florida Energy Efficiency and Conservation Act (FEECA), Section 366.81, Florida Statutes, states that the use of renewable energy sources will be encouraged along with conservation of expensive resources, particularly petroleum fuels. Rule 25-17.001, Florida Administrative Code, encourages the use of renewable energy sources as a high priority.

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The proposed installation meets the goals of FEECA and Rule 25-17.001, Florida Administrative Code. For these reasons, staff recommends that the negotiated contract be approved.

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Issue 2: Should this docket be closed?

Recommendation: If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order.

Staff Analysis: At the conclusion of the protest period, if no protest is filed this docket should be closed upon the issuance of a consummating order.