

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:** December 4, 2008

**TO:** Office of Commission Clerk (Cole)

**FROM:** Office of Strategic Analysis and Governmental Affairs (Garl, Crawford, Ellis)  
Division of Economic Regulation (Hewitt, Mallock)  
Office of the General Counsel (Young)

*CBH/E* *Y* *TJS* *PBE* *RLT*  
*JSB*

**RE:** Docket No. 080612-EI – Petition of Gulf Power Company for approval of negotiated renewable energy power purchase agreement with Bay County, Florida.

**AGENDA:** 12/16/08 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Skop

**CRITICAL DATES:** None

**SPECIAL INSTRUCTIONS:** None

**FILE NAME AND LOCATION:** S:\PSC\SGA\WP\080612.RCM.DOC

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### Case Background

On September 26, 2008, Gulf Power Company (Gulf) filed a petition requesting approval of a Negotiated Renewable Energy Contract between Bay County, Florida, and Gulf for the purchase of energy. The contract, executed by the County and Gulf on September 5, 2008, is based on Bay County owning and operating a solid municipal waste generating facility located in Bay County, Florida, that will generate electricity from the combustion of municipal solid waste. The County proposes to sell 13.65 MW from the facility to Gulf at a fixed price for a term of 6 years beginning July 23, 2008.

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In addition to the purchase of energy, the contract specifies that Gulf will receive all "Renewable Attributes," such as Renewable Energy Credits (RECs), Green Tags, carbon credits or allowances, or other tradable environmental interests associated with the generation of electricity from the facility.

This recommendation addresses Gulf's petition for approval of the contract with Bay County. The Commission has jurisdiction over this matter pursuant to Sections 366.051 and 366.81, Florida Statutes.

### Discussion of Issues

**Issue 1:** Should the Commission approve the contract between Gulf Power Company (Gulf) and Bay County, Florida, for purchase of the entire generation of the Bay County Resource Recovery Facility by Gulf?

**Recommendation:** Yes. Payments for energy are expected to produce savings of approximately \$1.8 million over the term of the contract. Upon a showing by Gulf that expenses for purchased power under the Negotiated Renewable Energy Contract were reasonable and prudently incurred, Gulf should be permitted to recover those costs through the fuel clause.

Approval of this contract should not in any way guarantee cost recovery of the purchase of renewable attributes or RECs. The contract specifies that Gulf is entitled to all RECs with delivery as "mutually agreed upon by the parties." The contract is silent as to whether the mutual agreement may include a monetary consideration. Any purchase of RECs, therefore, should be subject to Commission review for prudence as an issue separate from the purchased power. (Garl, Ellis)

#### Staff Analysis:

The Bay County Resource Recovery Facility uses solid municipal waste as its primary fuel. Solid municipal waste is considered a renewable fuel and the facility is a renewable generating facility as defined by Rule 25-17.210, Florida Administrative Code (F.A.C.).<sup>1</sup>

An interconnection agreement between Gulf and Bay County has been in place since 1987. Gulf maintains the interconnection between Gulf's system and the facility. The County pays Gulf for the cost of maintenance of the interconnection site. These costs, therefore, do not impact this analysis.

As required by Rule 25-17.0832(3), F.A.C., review of a negotiated contract requires staff to consider the following: the need for power, the cost-effectiveness of the contract, security provisions for capacity payments, and performance guarantees. Each of these factors is evaluated below.

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<sup>1</sup> "25-17.210 Definitions.

For purposes of these rules:

- (1) "Renewable Generating Facility" means an electrical generating unit or group of units at a single site, interconnected for synchronous operation and delivery of electricity to an electric utility, where the primary energy in British Thermal Units (BTUs) used for the production of electricity is from one or more of the following sources: hydrogen produced from sources other than fossil fuels, biomass, solar energy, geothermal energy, wind energy, ocean energy, hydroelectric power, or waste heat from a commercial or industrial manufacturing process.
- (2) "Biomass" means a fuel source that is comprised of, but not limited to, combustible residues or gases from forest products manufacturing, agricultural and orchard crops, waste products from livestock and poultry operations and food processing, urban wood waste, **municipal solid waste**, municipal liquid waste treatment operations, and landfill gas." (Emphasis added)

**A. Need for Power**

Gulf has contracted to buy all of the energy of the facility at fixed prices for six years, from July 23, 2008, through July 22, 2014. The expected maximum capacity of the facility is 13.65 MW. Gulf's 2008 Ten-Year Site Plan shows the next planned unit is an unnamed and unsited 804 MW combined cycle plant scheduled to be in-service in June 2014. This unit would not start commercial operation until after the contract term ends, thus cannot be considered in determining the full avoided cost for the purpose of analysis. Instead, full avoided cost should be considered, which is the cost of generating or purchasing the same amount of energy from an existing source, or the as-available energy cost.

The facility has a nameplate maximum generating capacity of 15.075 MW. After serving internal loads, the facility will provide net generation of approximately 13.65 MW to Gulf. It should be noted that the addition of 13.65 MW of energy from the facility to Gulf, pursuant to the contract, will not defer or avoid the need for additional capacity to meet a 20% reserve margin. However, the facility will displace energy generated by fossil fuels, reducing the state's dependence on these resources and promoting fuel diversity.

The Commission approved cost-effective contracts, such as the Gulf/Bay County contract, that use renewable resources as the primary fuel. Rule 25-17.001(5) (d), F.A.C., encourages electric utilities to:

. . . aggressively integrate nontraditional sources of power generation including cogenerators with high thermal efficiency and small power producers using renewable fuels into the various utility service areas near utility load centers to the extent cost effective and reliable.

Staff believes the characteristics of the energy associated with this contract are desirable and encourage the use of renewable fuels in Florida.

**B. Cost-Effectiveness**

Gulf and Bay County have agreed upon the following fixed payments for the 6-year term of the contract: \$72.50 per MWh for the first 4 years and \$75.00 per MWh for the last 2 years. As stated, Gulf lacks an avoided unit during the term of the contract for comparison; staff compared the contract rates with the as-available energy cost provided by Gulf. No capacity payments are involved with the contract, so the price paid is only for the actual energy provided by the facility. The contract requires that Bay County maximize its generation and that Gulf is the exclusive purchaser for all of the facility's net generation. As the chart below shows, the contract rate makes purchasing energy from the facility more cost-effective than Gulf generating the same amount from existing resources.

**Energy Price Comparison  
 (\$/MWh)**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
<b>As Available Energy Cost</b>	\$78.23	\$79.47	\$74.81	\$74.42	\$75.47	\$82.25
<b>Negotiated Contract Energy Cost</b>	\$72.50	\$72.50	\$72.50	\$72.50	\$75.00	\$75.00
<b>Difference</b>	\$5.73	\$6.97	\$2.31	\$1.92	\$0.47	\$7.25

Gulf estimates the facility will produce approximately 73,900 MWh of energy annually. Given the projected difference between the as-available energy rate and the contract's fixed payment, this results in an annual savings between \$35,026 and \$535,700. The total savings over the six year period of the contract would result in a nominal sum of \$1,822,281, as shown in the following chart:

**Estimated Savings**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
Difference (\$/MWh)	5.73	6.97	2.31	1.92	0.47	7.25	
Projected Purchases (MWh)	73,900	73,900	73,900	73,900	73,900	73,900	<b>TOTAL</b>
Annual Savings (\$)	423,584	515,416	170,974	141,581	35,026	535,700	<b>1,822,281</b>

Analyzing the month-to-month savings of the contract versus as-available energy shows the contract provides its savings in the summer months of June through September in most years. Conversely, the cost of as-available energy during the cooler months, October through May, is projected to be less than the contracted rate. If the facility does not perform well during the summer months, there is the potential of turning a cost-saving arrangement into a cost-ineffective proposition. Staff reviewed the generation history of the facility from January 2002 through September 2008. The facility's output remained fairly constant up through 2007. Output was reduced noticeably in several months of 2008. The reductions in March and June 2008 were due to fires in the facility. Lower output during other months in 2008 was necessary for completion of major maintenance requirements that had been postponed several years as the County transitioned to a new contracted facility operator. Generation history of the facility and completion of the major maintenance work provide assurance of the likelihood that output will continue at pre-2007 levels, including reliable production in summer months.

In addition to the energy provided by the facility, the contract states that renewable energy credits (RECs) associated with the electric energy produced from the facility will belong to Gulf. While a market for RECs does not yet exist in Florida, pending Commission action, upon approval of the Legislature, may establish such a market. The contract states, "Details regarding the delivery of such interests to the Company will be mutually agreed upon by the Parties." The contract is silent as to whether the mutual agreement may include a monetary consideration. Approval of this contract should not in any way guarantee cost recovery of the purchase of renewable attributes or RECs, especially if the cost of the energy plus any to-be-negotiated cost of the RECs exceed the full avoided cost. Any purchase of RECs, therefore,

should be subject to Commission review for prudence as an issue separate from the purchased power.

### **C. Security for Capacity Payments**

No capacity payments are associated with this contract; provisions are only for Bay County's delivery of energy to Gulf. The security of such an energy-only contract is that payments from the buyer are directly proportional to the amount of energy provided. If no energy is provided, no payment is due.

Termination provisions in the contract may be exercised if the Commission does not approve the contract or does not act on Gulf's petition and when Bay County defaults on the contract, after Gulf has given 60 days notice to the County to remedy the default condition.

Staff believes the security and termination provisions contained in the contract are sufficient to protect Gulf's ratepayers in the event that Bay County fails to meet its contractual obligations.

### **D. Performance Guarantees**

The contract lists conditions precedent which must be met to avoid default or termination. The conditions precedent include Bay County using "commercially reasonable efforts to maximize the Net Generation, consistent with its waste disposal obligations, operational considerations, and good engineering and utility practices." Bay County is also obligated to maintain a specified reactive power flow, annually provide Gulf with a schedule of planned generation outages or reductions, and prompt notification to Gulf of any forced or unplanned outages for longer than three days. If these obligations are not met, Gulf would notify Bay County of the default condition, which the County would be allowed 60 days to remedy. If not remedied after 60 days, Gulf may terminate the contract without further liability to either party.

Staff believes the terms of the contract are sufficient to protect Gulf's ratepayers if Bay County fails to deliver the net generation of energy from its facility.

### **Conclusion**

The contract between Gulf Power Company and Bay County provides Gulf with a viable source of electrical energy from a renewable fuel source that meets all requirements and rules governing Qualifying Facilities and small power producers. The contract is projected to be cost-effective. If a portion of the planned renewable generation cannot be delivered under the terms of this contract, the security provisions and performance guarantees effectively mitigate the risk to the ratepayers. For these reasons, staff recommends that the contract should be approved. Furthermore, upon a showing by Gulf that expenses for purchased power under the Negotiated Renewable Energy Contract were reasonable and prudently incurred, Gulf should be permitted to recover those costs through the fuel clause.

Approval of this contract should not in any way guarantee cost recovery of the purchase of renewable attributes or RECs. The contract specifies that Gulf is entitled to all RECs with

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delivery as “mutually agreed upon by the parties.” The contract is silent as to whether the mutual agreement may include a monetary consideration. Any purchase of RECs, therefore, should be subject to Commission review for prudence as an issue separate from the purchased power.

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**Issue 2:** Should this docket be closed?

**Recommendation:** If no person whose substantial interests are affected files a protest within 21 days of the issuance of the Commission's order approving the petition and contract, this docket should be closed upon the issuance of a consummating order. (Young)

**Staff Analysis:** If no person whose substantial interests are affected files a protest within 21 days of the issuance of the Commission's order approving the petition and contract, this docket should be closed upon the issuance of a consummating order.