

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of negotiated renewable energy contracts with U.S. EcoGen Okeechobee, LLC, U.S. EcoGen Clay, LLC, and U.S. EcoGen Martin, LLC, by Florida Power & Light Company.

DOCKET NO. 120314-EQ  
ORDER NO. PSC-13-0164-PAA-EQ  
ISSUED: April 22, 2013

The following Commissioners participated in the disposition of this matter:

RONALD A. BRISÉ, Chairman  
LISA POLAK EDGAR  
ART GRAHAM  
EDUARDO E. BALBIS

NOTICE OF PROPOSED AGENCY ACTION ORDER  
APPROVING NEGOTIATED RENEWABLE ENERGY CONTRACTS

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission (Commission) that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

**Case Background**

On December 18, 2012, Florida Power & Light Company (FPL) filed a petition requesting approval of three negotiated contracts for the purchase of firm capacity and energy (collectively, Contracts) between three subsidiaries of U.S. EcoGen, LLC (US EcoGen) and FPL. The subsidiaries are U.S. EcoGen Okeechobee, LLC, U.S. EcoGen Clay, LLC, and U.S. EcoGen Martin, LLC. The Contracts are based upon each subsidiary constructing, owning, and operating a biomass electric generating facility (collectively, US EcoGen Facilities) with an in-service date by June 1, 2019, in Okeechobee, Clay, and Martin counties, respectively. The Contracts are for the sale of 60 megawatts (MW) of firm capacity and associated energy from each US EcoGen facility for a total contract term of 30 years.

The US EcoGen Facilities will each use a bubbling bed fluidized boiler with biomass fuel. Fuel procurement is based on a closed loop biomass system, with dedicated energy crops grown on farmland owned or leased by each U.S. EcoGen subsidiary. Eucalyptus is anticipated to be the primary energy crop. The US EcoGen Facilities are planned to run at a capacity factor of 90 percent, resulting in 473,040 Megawatt-hours (MWh) of annual production each, or

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1,419,120 MWh collectively. FPL and US EcoGen estimate that each US EcoGen facility will generate 141 direct and indirect jobs from its operation and associated fuel procurement.

On February 8, 2013, the Florida Industrial Power Users Group (FIPUG) filed a petition to intervene in this docket, which was granted on February 27, 2013.<sup>1</sup>

We have jurisdiction over this matter pursuant to Sections 366.051, 366.91, and 366.92, Florida Statutes (F.S.).

### **Decision**

US EcoGen proposes to sell a total of 180 MW of firm capacity and energy from three subsidiaries; U.S. EcoGen Okeechobee, LLC, U.S. EcoGen Clay, LLC, and U.S. EcoGen Martin, LLC. Pursuant to the Contracts, the US EcoGen subsidiaries will begin delivery of non-firm energy in 2019, with firm capacity and energy delivered beginning in 2021 through 2049, for a total term of 30 years. Rule 25-17.0832(3), Florida Administrative Code (F.A.C.), provides that in reviewing negotiated firm capacity and energy contracts for the purpose of cost recovery, we must consider factors relating to the contract that will impact the utility's general body of retail and wholesale customers, including: need for power, cost-effectiveness, security provisions for early payments, and performance guarantees associated with the renewable facilities. These factors are evaluated below.

#### **Need for Power**

FPL maintains a planning reserve margin of 20 percent pursuant to a stipulation approved by this Commission.<sup>2</sup> FPL's next major generating additions are the Cape Canaveral Modernization (1,210 MW) in 2013, the Riviera Modernization (1,212 MW) in 2014, and the Port Everglades Modernization (1,277 MW) in 2016, followed by Turkey Point Units 6 and 7 (1,100 MW each) in 2022 and 2023.

In order to maintain a 20 percent reserve margin, in its 2012 Ten-Year Site Plan (TYSP), FPL identifies a resource need of 250 MW in 2021. FPL satisfied the planning reserve margin requirement by including in the 2012 TYSP the planning assumption that FPL will enter into a one year term Purchased Power Agreement (PPA) for 250 MW in 2021. This PPA is also the basis of FPL's 2012 standard offer contract.<sup>3</sup> At this time, FPL has not signed any standard offer contracts for the 2021 time period.

FPL currently projects that renewable generation will account for only 1.37 percent of net energy for load by 2021. With the energy from the US EcoGen Facilities, the renewable energy

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<sup>1</sup> See Order No. PSC 13-0103-PCO-EQ, issued February 27, 2013, in Docket No. 120314-EQ – In re: Petition for approval of negotiated renewable energy contracts with U.S. EcoGen Okeechobee, LLC, U.S. EcoGen Clay, LLC, and U.S. EcoGen Martin, LLC, by Florida Power & Light Company.

<sup>2</sup> See Order No. PSC-99-2507-S-EU, issued December 22, 1999, in Docket No. 981890-EU - In re: Generic investigation into the aggregate electric utility reserve margins planned for Peninsular Florida.

<sup>3</sup> See Order No. PSC-12-0336-TRF-EQ, issued June 27, 2012, in Docket No. 120072-EQ, In re: Petition for approval of renewable energy tariff and standard offer contract, by Florida Power & Light Company.

provided will increase to 2.43 percent of net energy for load by 2021, or a 77.4 percent increase. Because of the size of FPL's system, the proposed Contracts provide a small reliability benefit over the term of firm capacity delivery. However, along with other potential purchased power contracts from renewable facilities, the Contracts may help to defer the construction of future utility fossil-fueled generation units. It has been the our practice to approve cost-effective contracts that use renewable resources as the primary fuel. Pursuant to Rule 25-17.001(5)(d), F.A.C., electric utilities must:

[a]ggressively 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.

The firm capacity to be delivered under the terms of the Contracts, and the resulting potential to defer or delay a portion of FPL's next generating unit, meets the requirement of Rule 25-17.0832(3)(a), F.A.C. (which addresses the need for capacity by the purchasing utility and the state as a whole). Therefore, upon review, we find that approval of the proposed Contracts will enhance FPL's system reliability, encourage the use of renewable fuels in Florida, and promote fuel diversity for FPL's ratepayers.

### **Cost Effectiveness**

Rule 25-17.0832(3)(b), F.A.C., requires, in part, that we consider whether the cumulative present worth of payments to a qualifying facility are no greater than the cumulative present worth of the purchasing utility's avoided cost of capacity and energy. FPL provided a cumulative present value revenue requirement (CPVRR) of its system with, and without, the US EcoGen Facilities. FPL's analysis suggests a net present value (NPV) savings of \$159.1 million using the baseline fuel forecast, with net savings projected to begin in 2034. A substantial portion of savings associated with this analysis are based on deferral of generation assets beginning in 2034 and on high emissions costs.

While a system level CPVRR is a valid form of cost-effectiveness analysis, a value-of-deferral analysis, based on the utility's next avoidable unit, allows for a better comparison for smaller resource options. The next avoidable unit is usually identified in the company's TYSP and the standard offer contract, both of which are filed annually. In this instance, the 2012 standard offer is not comparable to the Contracts because the US EcoGen subsidiaries will be providing over 28 years of firm capacity to FPL, versus a single year from the PPA. A comparison of the payments to the US EcoGen subsidiaries and the 2012 standard offer shows a net present value cost of \$12.4 million.

FPL's 2012 TYSP contains no avoidable generating units during the ten-year planning horizon. FPL's next generating unit additions outside the TYSP, Turkey Point 6 and 7 in 2022 and 2023, have received a determination of need.<sup>4</sup> As such, these units are not considered

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<sup>4</sup> See Order No. PSC-08-0237-FOF-EI, issued April 11, 2008, in Docket No. 070650-EI - In re: Petition to determine need for Turkey Point Nuclear Units 6 and 7 electrical power plant, by Florida Power & Light Company.

avoidable. Consistent with our Order approving the 2012 standard offer contract, FPL identifies its next avoidable generating unit as a greenfield natural gas-fired combined cycle with an in-service date in 2025.<sup>5</sup>

Previously, we have recognized that a company's next avoided unit may fall outside the ten-year planning horizon; a list of recent avoided units outside of the TYSP planning horizon approved for use in a company's standard offer is provided in Table 1 below.

**Table 1 – Standards Offers with Avoided Units Outside of Ten-Year Planning Horizon**

Standard Offer Year	Utility	Avoided Unit	TYSP Planning Horizon	Commission Order
2012	Gulf Power Company	2022 Combustion Turbine	2012–2021	PSC-12-0332-TRF-EQ
2011	Gulf Power Company	2022 Combustion Turbine	2011–2020	PSC-11-0288-TRF-EQ
2010	Florida Power & Light	2025 Combined Cycle	2010–2019	PSC-10-0463-TRF-EI
2010	Gulf Power Company	2020 Combustion Turbines	2010–2019	PSC-10-0466-TRF-EQ
2009	Florida Power & Light	2021 Combined Cycle	2009–2018	PSC-09-0634-TRF-EQ

Payments under the Contracts are divided into three categories: Capacity, Energy, and Energy Performance Bonus. The specific value of each payment type is based on formulas including confidential components. Capacity payments will begin in 2021 after an initial two year commissioning period, and be based on a formula requiring a 90 percent capacity factor for a full payment. Energy payments are based on two indexes and are paid based on MWh-delivered for the entire 30 year term of the Contracts. The relevant indexes are the consumer price index and the reported gas price for Florida Gas Transmission Zone 3. By using indexed energy prices rather than a fixed price, the US EcoGen subsidiaries share some risk of fuel price fluctuations along with FPL's ratepayers. This risk sharing is preferable to fully fixed energy prices which cause ratepayers alone to be subject to changes in fuel markets. Energy payments are increased during the initial two year commissioning period by an amount referred to as Energy Performance Bonus payments, based on MWh-delivered.

FPL provided a comparison of the estimated payments in the Contracts to the 2025 combined cycle, including fuel forecast sensitivities to estimate the range of potential benefits or costs. When compared to the 2025 combined cycle, the Contracts show an estimated NPV savings of \$89.4 million in the baseline fuel scenario, with net savings projected to begin in 2032. The results of the fuel sensitivities are listed below in Table 2.

**Table 2 – Cost Effectiveness Analysis of the US EcoGen Facilities (2012\$)**

Fuel Forecast Scenario	Baseline	High	Low
Estimated NPV Savings (\$000)	\$89,451	\$236,771	(\$60,240)

<sup>5</sup> See Order No. PSC-12-0336-TRF-EQ, issued June 27, 2012, in Docket No. 120072-EQ, In re: Petition for approval of renewable energy tariff and standard offer contract, by Florida Power & Light Company.

The high and low fuel forecasts were not independently developed using specific economic conditions, but rather were based upon a flat 15 percent increase or decrease in fuel prices over the full term of the Contracts. Overall, we find that the Contracts are cost-effective as required by Rule 25-17.0832(b), F.A.C., and could result in a NPV savings of \$89.4 million to FPL's ratepayers over the 30-year period when compared to the 2025 combined cycle avoided unit.

### **Security for Early Capacity Payments**

When a renewable provider receives capacity payments prior to the in-service date of the avoided unit, Rule 25-17.0832(3)(c), F.A.C., requires that we consider whether sufficient security is provided for these payments, and permits the use of forecasted data for this purpose. Generally, early capacity payments 1) represent an early cost to ratepayers that is gradually recovered over the term of the contract with lower payments in outer years and 2) may require several years to realize savings. Security is designed to ensure repayment of early costs that are incurred, but may have not be fully recovered, if there is a default during the term of the contract.

The Contracts provide for a payment security that is to be held as collateral with either cash or a letter of credit. The payment security is to be updated annually, and reflects the forecasted value of early payments to the US EcoGen subsidiaries that are in excess of the cumulative avoided cost of the 2025 combined cycle avoided unit, including a confidential modifier. The amount required for payment security will increase until the avoided unit's 2025 in-service date, at which time the payment security will decrease annually until it reaches a value of zero. In the event of a default by any of the three US EcoGen subsidiaries, FPL will be able to draw upon the payment security to make ratepayers whole for any early payments. Upon review, we find that the Contracts provide adequate security for early payments in accordance with the requirements of Rule 25-17.0832(3)(c), F.A.C.

### **Performance Guarantees**

The performance guarantees detail how a renewable facility is to operate and require financial penalties or other remedies if a facility fails to operate in accordance with specified terms and conditions. Rule 25-17.0832(3)(d), F.A.C., requires that we consider whether the utility's ratepayers are protected by a contract's terms. The Contracts include multiple terms and conditions that protect the ratepayers in the event of a default. Each US EcoGen subsidiary is required to maintain performance security, with a confidential amount of collateral based upon 1) the creditworthiness of the US EcoGen subsidiary and 2) the period of the contract. The performance security can be drawn upon in the event of a default to recover any damages to FPL ratepayers as a result of non-performance under the contract.

The US EcoGen Facilities are required to operate on a must-run basis and capacity payments are based on a sliding formula after the initial two-year commissioning period. If the US EcoGen Facilities maintain an average capacity factor of 90 percent, a full payment is provided, with reduced payments until an average capacity factor of 70 percent, at which time no capacity payment is provided. This may also constitute default. Other terms and conditions

include milestones associated with permitting and construction of each facility, and requirements for the operation of each facility, such as maintaining a specified minimum quantity of fuel on-site. We have reviewed the performance guarantees contained in each contract and find that they are adequate to protect the ratepayers, in accordance with Rule 25-17.0832(d), F.A.C.

### **Conclusion**

The negotiated purchased power Contracts between and FPL and, respectively, U.S. EcoGen Okeechobee, LLC, U.S. EcoGen Clay, LLC, U.S. EcoGen Martin, LLC, meet all the requirements of our rules governing renewable energy. The Contracts provide for renewable capacity and energy to FPL's system, increasing fuel diversity. The Contracts are cost-effective when compared to FPL's next avoidable fossil fueled generating unit, and are projected to create a net present value savings of \$89.4 million. In the event of a default, early payments to the US EcoGen subsidiaries are protected under the Contracts' payment security terms. The terms and conditions of the Contracts provide protection and performance security for ratepayers in the event the US EcoGen Facilities fail to deliver firm capacity as specified. Therefore, we shall approve, for cost recovery, the Contracts between FPL and each of the three US EcoGen subsidiaries.

Based on the foregoing, it is

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ORDERED by the Florida Public Service Commission that cost recovery for the negotiated purchased power agreement between U.S. EcoGen Okeechobee, LLC and Florida Power & Light Company is hereby approved. It is further,

ORDERD that cost recovery for the negotiated purchased power agreement between U.S. EcoGen Clay, LLC and Florida Power & Light Company is hereby approved. It is further,

ORDERD that cost recovery for the negotiated purchased power agreement between U.S. EcoGen Martin, LLC and Florida Power & Light Company is hereby approved. It is further,

ORDERED that this docket shall be closed upon issuance of a Consummating Order unless a person whose substantial interests are affected by the Commission's decision files a protest within 21 days of the issuance of the proposed agency action.

By ORDER of the Florida Public Service Commission this 22nd day of April, 2013.



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Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

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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 that is available under Section 120.57, 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 will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on May 13, 2013.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.