

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of solar energy  
power purchase agreement between Tampa  
Electric Company and Energy 5.0, LLC.

DOCKET NO. 090109-EI  
ORDER NO. PSC-10-0057-PAA-EI  
ISSUED: January 25, 2010

The following Commissioners participated in the disposition of this matter:

MATTHEW M. CARTER II, Chairman  
LISA POLAK EDGAR  
NANCY ARGENZIANO  
NATHAN A. SKOP  
DAVID E. KLEMENT

NOTICE OF PROPOSED AGENCY ACTION  
ORDER APPROVING SOLAR ENERGY  
PURCHASED POWER AGREEMENT

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service 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.

BACKGROUND

On March 9, 2009, Tampa Electric Company (TECO or Company) filed a petition requesting approval of a purchased power agreement (Contract) with Energy 5.0, LLC (Energy 5.0). In its Petition, TECO states that it awarded Energy 5.0 the opportunity to supply solar renewable energy to its customers through a voluntary Renewable Generation Request for Proposals in June 2007. The Contract, executed on February 25, 2009, is based on TECO purchasing the entire net electrical output of Energy 5.0's Florida Solar I Facility (Facility) for a period of 25 years beginning on January 1, 2011. Energy 5.0 will sell as-available energy produced by the Facility to TECO at a price per megawatt-hour (MWh) that is fixed for the term of the Contract. The Facility is a 25 megawatt (MW) solar photovoltaic array that can provide approximately 50,000 MWh of energy annually. In addition to the purchase of energy, the Contract specifies that TECO will receive all environmental attributes and renewable energy credits (RECs) associated with the renewable energy that is sold to TECO.

On August 11, 2009, TECO filed updated information to its petition. Following an interconnection study performed by TECO, the Company identified a necessary upgrade to its 69kV network in order to accommodate the proposed facility. TECO's updated information included the costs associated with the described upgrades.

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At our October 27, 2009, Agenda Conference, we requested additional information regarding the costs associated with the Facility and the Contract. On November 5, 2009, our staff issued data requests to Energy 5.0 and TECO, and received responses on November 12 and November 19, 2009, respectively.

On November 23, 2009, Mosaic Fertilizer, LLC (Mosaic) filed a petition for leave to intervene in this docket, which was granted by Order No. PSC-09-0818-PCO-EI, issued December 14, 2009.

This order addresses TECO's petition for approval of the Contract with Energy 5.0, and discusses TECO and Energy 5.0's responses to our staff's data request on levelized cost and cost-effectiveness. We have jurisdiction over this matter pursuant to Sections 366.051, 366.81, 366.91, and 366.92, Florida Statutes (F.S.).

### DECISION

Energy 5.0 will sell as-available energy produced by the Facility to TECO for a term of 25 years beginning on January 1, 2011. The Facility is a 25 MW solar photovoltaic array that can provide approximately 50,000 MWh of energy annually. TECO has agreed to pay a fixed price per MWh for the life of the Contract. Because the Facility will not provide firm energy, there are no capacity payments associated with the Contract. The Contract provides that TECO may curtail or reduce deliveries of as-available energy, to the extent necessary to maintain the reliability and integrity of TECO's system. We find that the provisions of the Contract are sufficient to ensure that the Facility will not adversely affect the adequacy or reliability of electric service to TECO's customers.

TECO's original evaluation of the Contract, without revenues from the sale of RECs, indicates that purchased power pursuant to the Contract would have a net cost above TECO's as-available energy costs of approximately \$44 million to \$65 million over the life of the contract. TECO's analyses show that the Contract is above avoided cost for every year of the 25-year contract. TECO's analyses also indicate that the sale of RECs could produce revenues to offset the costs of the Contract. Under the scenario in which TECO assumed a \$300/MWh selling price for RECs, the Contract results in a net savings (nearly \$70 million).

#### *Updated Cost-Effectiveness:*

As part of the November 5, 2009, data request, our staff requested updated economic analyses of the Contract assuming the Company's most recent fuel forecasts. The results of the updated cost-effectiveness analyses indicate that the Contract is less cost-effective than previously projected, due to changes in fuel prices. The results of the updated base case economic analyses (assuming no CO<sub>2</sub> costs or revenue from RECs) are summarized in the table below. Positive values indicate a net cost to ratepayers.

**Table 1: Summary of Base Case Economic Analyses**

	Original	Updated
<b>Net Present Value Costs (\$)</b>	65 Million	78 Million
<b>Residential Bill Impact (\$/Mo)</b>		
<b>2011</b>	0.48	0.52
<b>2023</b>	0.26	0.34
<b>2035</b>	0.10	0.19
<b>AVG</b>	0.28	0.36

Sources: Page 11 of TECO’s Petition, TECO’s Response to Staff’s Second Data Request, No.4., TECO’s response to Staff Interrogatory No. 66.

As shown in Table 1, above, approval of TECO’s petition would result in TECO’s customers paying a premium for solar power.

*Levelized Cost Comparison:*

At the October 27, 2009, Commission Agenda Conference, we requested additional information regarding the costs associated with the Facility and the Contract. As part of the November 5, 2009, data request, our staff requested the levelized cost of Energy 5.0’s proposed solar facility and a 25 MW solar PV facility that could be built by TECO at its Polk site. As part of its response, Energy 5.0 stated:

From Energy 5.0’s perspective, it is not meaningful to discuss a levelized cost, because Energy 5.0 will incur whatever costs are required for the Project’s capital investment, financing costs, income taxes, property taxes, and all other operating and maintenance costs, as those costs are incurred.

However, Energy 5.0 did provide a capital cost estimate (\$130 to \$140 million) and an estimate of annual operations and maintenance (O&M) costs (\$1.2 million). TECO also provided a capital cost estimate for a self-build option of \$173 million but no value for annual O&M. Our staff utilized the values provided by Energy 5.0 and TECO to estimate a levelized cost for the proposed project and a comparable utility-owned facility. Staff additionally took into consideration the impact of the 30 percent investment tax credit (ITC) currently offered by the federal government for Energy 5.0’s facility.

Table 2, below, summarizes the cost estimates for the proposed Energy 5.0 project and a TECO self-build option. We additionally include cost estimates from the following sources which are recent and specific to Florida:

1. 26.5¢/kWh – Florida Power & Light Company’s (FPL) De Soto Solar Project, which is a 25 MW solar PV facility located in Florida.

2. 28.8¢/kWh - Navigant Consulting's levelized cost estimate for ground-mounted solar PV in Florida assuming no RECs.

**Table 2: Summary of Levelized Cost Estimates**

	¢/kWh
<b>Energy 5.0 Project (Estimated)</b>	22.4 <sup>1</sup>
<b>TECO Self Build (Estimated)</b>	38.0 <sup>1</sup>
<b>Navigant Estimate</b>	28.8 <sup>2</sup>
<b>FPL De Soto Project</b>	26.5 <sup>3</sup>

Based on the compiled data, the levelized cost estimate of the Energy 5.0 facility appears to be reasonable when compared to other similar projects.

*Conclusion:*

The voluntarily negotiated Contract between TECO and Energy 5.0 will provide a viable source of renewable energy that will displace energy generated by fossil fuels, thus reducing the state's dependence on these resources and promoting fuel diversity.

Section 366.91(1), F.S., provides:

The Legislature finds that it is in the public interest to promote the development of renewable energy resources in this state. Renewable energy resources have the potential to help diversify fuel types to meet Florida's growing dependency on natural gas for electric production, minimize the volatility of fuel costs, encourage investment within the state, improve environmental conditions, and make Florida a leader in new and innovative technologies.

In this instance, we find it appropriate to approve TECO's Petition for its Solar Energy Purchased Power Agreement with Energy 5.0 in order to provide fuel diversity benefits to the Company and its customers, and to further the goals of promoting renewable solar energy resources and encouraging investment in solar technology in Florida. We also find it is appropriate in this case that TECO shall be authorized to recover the energy payments associated with this voluntarily negotiated solar energy power purchase agreement through our periodic review of fuel and purchased power costs through TECO's annual fuel cost recovery factor.

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<sup>1</sup> Value is exclusive of significant undetermined major maintenance expenses.

<sup>2</sup> Value taken from Navigant Consulting's "Florida Renewable Energy Potential Assessment" report which was submitted to this Commission on December 30, 2008, for use in Docket No. 080503-EI, In re: Establishment of Rule on Renewable Portfolio Standard.

<sup>3</sup> Value provided by FPL in response to Staff Interrogatory No. 56, of Staff's Eighth Set of Interrogatories, in Docket No. 080007-EI, In re: Environmental cost recovery clause, assumes a 20 percent capacity factor.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the Petition for approval of solar energy power purchase agreement between Tampa Electric Company and Energy 5.0, LLC, is hereby approved. It is further

ORDERED that Tampa Electric Company shall be authorized to recover the energy payments made to Energy 5.0 through TECO's annual fuel cost recovery factor. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall be closed.

By ORDER of the Florida Public Service Commission this 25th day of January, 2010.



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ANN COLE  
Commission Clerk

( S E A L )

JSB

DISSENT BY: COMMISSIONER SKOP

COMMISSIONER SKOP, dissenting with a separate opinion:

I respectfully dissent with the majority view on the basis that the approval of this project will force TECO ratepayers to overpay approximately \$44 million dollars for the electricity from the renewable resource over the life of the project. The specific rationale supporting my dissent is outlined as follows:

*Contract Price Exceeds the Levelized Cost of Electricity*

In the instant case, the confidential contract price to be paid by TECO ratepayers significantly exceeds the Levelized Cost of Electricity (LCOE) for the renewable resource over the life of the project. Accordingly, TECO ratepayers will be forced to pay approximately \$44 million dollars more than they should for the renewable resource over the life of the project. In approving the project without addressing this valid concern, the majority decision allows Energy 5.0 to capture approximately \$44 million dollars of excess profit resulting in an estimated Return on Equity (ROE) of 18.0% over the life of the project. While sharing in the majority's desire to promote renewable energy within the State of Florida, inadvertently granting such a windfall at the expense of TECO ratepayers is unwarranted and worthy of reconsideration by the majority.

*RFP Process in Itself Does Not Ensure Value for Consumers*

Contrary to the representations of the petitioners, a low-bid response to an outdated Request for Proposals (RFP) in an imperfect market is insufficient in itself to ensure that ratepayers are not paying more than they should for a given renewable resource over the life of the project.<sup>4</sup> Accordingly, the contract price must be compared to an objective benchmark (i.e., the LCOE for the renewable resource over the life of the project) to adequately protect the interests of the ratepayers. In the instant case, the confidential contract price to be paid by TECO ratepayers significantly exceeds the LCOE for the renewable resource over the life of the project. Accordingly, TECO ratepayers will be forced to pay approximately \$44 million dollars more than they should for the renewable resource over the life of the project.

*Abrogating Avoided Cost Precedent Creates a Slippery Slope*

Florida Statutes expressly mandate that, "In order to demonstrate the feasibility and viability of clean energy systems, the commission shall provide for full cost recovery under the environmental cost-recovery clause of all reasonable and prudent costs incurred by a provider for renewable energy projects that are zero greenhouse gas emitting at the point of generation, **up to a total of 110 megawatts statewide**, and for which the provider has secured necessary land,

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<sup>4</sup> Energy 5.0 responded to the TECO RFP in August 2007. The resulting Power Purchase Agreement (PPA) was subsequently executed by the parties in February 2009.

zoning permits, and transmission rights within the state.” (emphasis added).<sup>5</sup> More generally, Florida Statutes also clearly reflect the express intent of the Legislature to promote the development of renewable energy resources within the State of Florida.<sup>6</sup> Under the well-established rule of statutory construction, however, a more specific statutory provision controls over a more general statutory provision when two statutory provisions are in conflict.

Historically under Commission precedent, with the limited exception of the express Legislative mandate found in section 366.92(4), Florida Statutes, cost recovery for renewable energy has been strictly limited to energy and capacity payments based upon the utility's full avoided costs defined in section 366.051, Florida Statutes. Additionally, the long standing Commission precedent limiting cost recovery for renewable energy to a utility's full avoided costs is consistent with statutory provisions<sup>7</sup> and Commission rules.

In the instant case, the majority decision, adopting a broad interpretation of the Legislative intent to promote renewable energy within the State of Florida, effectively abrogates long standing Commission precedent limiting cost recovery for renewable energy to a utility's full avoided costs. While it is certainly within the majority's discretion and prerogative to discern a broad legislative intent as a basis for approving this project, doing so without comparing the confidential contract price to an objective benchmark (i.e., the LCOE for the renewable resource over the life of the project) ignores the critical question as to whether ratepayers are overpaying for a renewable resource over the life of the project. Accordingly, approving the project without making such a comparison fails to adequately protect the interests of TECO ratepayers. Furthermore, by effectively abrogating the long standing Commission precedent of limiting cost recovery for renewable energy to a utility's full avoided costs, without articulating objective economic benchmarks as the basis for decision (e.g., denial of Power Purchase Agreements priced above the LCOE for the renewable resource over the life of the project; limiting the size and number of projects to avoid rate impact) the majority decision inadvertently creates a slippery slope for future decisions. Specifically, it is not unreasonable to expect that the approval of this project will open the floodgates to additional requests for renewable projects, the denial of which will prompt litigation as a result of this decision.

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<sup>5</sup> Fla. Stat. §366.92(4) (2008). The authorized total of 110 MW statewide was fully subscribed prior to the consideration of the instant case.

<sup>6</sup> Fla. Stat. §366.91(1) (2008) (“The Legislature finds that it is in the public interest to promote the development of renewable energy resources in this state.”). See also Fla. Stat. §366.92(1) (2008) (“It is the intent of the Legislature to promote the development of renewable energy...and, at the same time, minimize the costs of power supply to electric utilities and their customers.”).

<sup>7</sup> Fla. Stat. §366.91(3) (2008) (cost recovery for renewable energy limited to energy and capacity payments based upon the utility's full avoided costs defined in section 366.051, Florida Statutes). See also Fla. Stat. §366.92(1) (2008) (“It is the intent of the Legislature to promote the development of renewable energy...and, at the same time, minimize the costs of power supply to electric utilities and their customers.”). Accordingly, limiting cost recovery for renewable energy to a utility's full avoided costs appears to be consistent with the legislative intent to promote renewable energy while minimizing the cost of power supply to electric utilities and their customers.

*Evidentiary Hearing Required to Resolve Disputed Issues of Fact*

The instant case was predominated by a complete lack of transparency regarding the economics of the underlying project, and the need for additional information to address unanswered questions from the bench. Specifically, at issue are the critical questions as to whether TECO ratepayers are overpaying for this renewable resource over the life of the project, and whether the Energy 5.0 proposal is the most cost effective alternative for TECO ratepayers. Accordingly, I would respectfully encourage the majority to consider revisiting its decision on the Commission's own motion, to vacate this Order, and order a full evidentiary hearing prior to rendering a final decision by the Commission on this docketed matter.



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 February 15, 2010.

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.