

State of Florida



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

DATE: November 19, 2009
TO: Ann Cole, Commission Clerk - PSC, Office of Commission Clerk
FROM: Thomas E. Ballinger, Utilities System/Engineering Spec Supv., Division of
Regulatory Analysis *TEB* *AK*
RE: DN 090109-EI - Petition for approval of solar energy power purchase agreement
between Tampa Electric Company and Energy 5.0, LLC.

Please place the attached Response to Data Request, dated November 12, 2009 from Robert Scheffel Wright, in the docket file mentioned above.

DOCUMENT NUMBER-DATE

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November 12, 2009

Deleted: November 10, 2009

Jennifer S. Brubaker, Esq. Attorney Supervisor
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State of Florida Public Service Commission
2530 Shumard Oak Boulevard
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Re: Docket No. 090109-EI - In re: Petition for approval of solar energy power purchase agreement between Tampa Electric Company and Energy 5.0, LLC.

Dear Ms. Brubaker:

I am providing this letter on behalf of my client, Energy 5.0 LLC, in response to your request for additional information dated November 5, 2009.

1. Please complete the following table describing the total cost of the proposed project:

Capital	O&M	Administrative Costs	Tax Credits	Rebates	Other

Response:

Energy 5.0 has not determined the final costs requested by the above table, but has previously provided estimates of capital and O&M costs prepared by its consultant. To protect the integrity of the expected bid process that information was made available to Staff on a confidential basis at the office of Energy 5.0's counsel. Staff inspected that information on April 29, 2009. Comparing those costs to the Navigant study indicates slightly lower costs for Energy 5.0's Florida Solar I Facility, but general consistency.

At the October 27th agenda conference Energy 5.0 cited a capital cost estimate of \$130 to 140 million. This number is an approximation of overnight construction costs. Energy 5.0 estimates O&M costs at \$1.2 million per year including on-going administrative expenses. In addition Energy 5.0 anticipates significant undetermined major maintenance expenses (sometimes called capital replacement) during the 25-year term of the PPA. On the whole while one can estimate the cost parameters of the project,

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those costs are as yet unknown. The price to Tampa Electric is fixed for the life of the PPA, such that Energy 5.0 takes all cost and performance risk.

Energy 5.0 expects that successful project financing will require the use of all tax credits and incentives for which the project can qualify. Currently the federal government offers a 30% investment tax credit (ITC), or in some cases a cash renewable energy grant in lieu of the ITC for projects that have begun construction before December 31, 2010. In addition, PV solar property qualifies for accelerated depreciation treatment for tax purposes which generates certain potential benefits to the project. Energy 5.0 has not yet determined whether it will attempt to take advantage of the grant in lieu of ITC. That decision will be made at time of financing and will depend on the preferences of tax equity investors.

Energy 5.0 does not anticipate receiving rebates or incentive payments for the Florida Solar I Project, but anticipates qualifying for certain sales and property tax benefits under existing law.

2. Please define the weighted average cost of capital that Energy 5.0 proposes to use for purposes of this project. For purposes of this response, identify the capital structure components, amounts, relative percentages, cost rates, and the weighted average cost of capital on a pretax and after tax basis.

Response:

It is not possible to provide the requested values with any meaningful degree of certainty. The debt-equity structure of the project financing and the costs of equity and debt financing for the proposed project will be determined by market conditions at the time of financing. The equity and debt percentages will be determined by market conditions and negotiations with lenders and investors, and could range between 40% equity and 50% equity. Additionally, the cost of debt could easily range from 100 to 400 basis points above market interest rates at the time. Finally, while equity investors will likely have in mind an internal rate of return that they require in order to take an investment position, actual equity returns will be based upon the cash available after all other costs are paid. The equity investors, including Energy 5.0, are thus taking all of the risk on the capital and operating costs of the project, as well as on the potential returns from the project. While financing terms have varied widely during the pendency of this PPA (because of the turbulence in financial markets), Energy 5.0 believes that, based on its most recent conversations with potential investors and lenders, financing will be available on terms which will allow financing to be achieved and provide a basis to move the FS1 Project to completion.

3. Please provide the following information:

- a) Annual and levelized cost of the project (¢/kwh)
- b) Annual revenue (\$)
- c) Please provide a comparison contrasting these costs (provided in response to 3(a), above) to those found in the Navigant study for the following technologies:
 1. Solar Thermal
 2. Solar PV

Response:

Energy 5.0 has requested confidential treatment for cost and price information provide to the Commission Staff.

- a) Tampa Electric Company has provided both the anticipated annual generation and annual and levelized cost of the Power Purchase Agreement (PPA) in response to earlier Staff questions. 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. Accordingly, from Energy 5.0's perspective, the costs are what they are, and Energy 5.0's returns will vary according to the difference between the levelized price paid by Tampa Electric and the Project's costs in each of the 25 years of the Solar PPA. We believe that the all-in cost to Energy 5.0 will be acceptable to financial markets to provide renewable energy to Tampa Electric customers at just and reasonable rates, based at the fair, competitive pricing that resulted from the competitive bidding process and provide the basis for reasonable financing terms in evolving capital markets.
- b) Tampa Electric's cost will be Energy 5.0's gross revenue, and conversely, Energy 5.0's annual revenue will simply be the fixed confidential price per MWH for the solar-generated electrical energy delivered to Tampa Electric times the MWH delivered in each year. As previously provided in response to Staff's Interrogatory No. 23, Tampa Electric and Energy 5.0 expect total annual energy delivered from the Florida Solar I Facility to be approximately 50,000 MWH per year.
- c) The Navigant study provides an estimate of the levelized cost per kilowatt-hour ("LCOE") for concentrating solar power (CSP) and solar PV in different scenarios. The most relevant comparison is the Without RECs Case - Mid Favorable Scenario.
 1. For this case Navigant forecasts a LCOE for a CSP project at 25.5 cents per kilowatt-hour in 2009. (2008 dollars for installation in 2009)
 1. For this case Navigant forecasts a LCOE for a PV solar project at 28.8 cents per kilowatt-hour in 2009.

These values compare favorably to the confidential fixed (levelized) price of the subject PPA.

4. Please explain how the benefits, if any, of federal tax credits were included the cost of the project?

Response:

As indicated in response to Question No. 1 above, Energy 5.0 anticipates seeking federal tax credits and, to the extent available, sales and property tax benefits available to the Florida Solar I Project as part of a successful project financing. Also as indicated earlier, it has not yet been determined whether Energy 5.0 will avail itself of the grant in lieu of ITC or alternatively take advantage of the federal investment tax credit.

Tampa Electric Company has submitted information in response to earlier Staff questions to the effect that Energy 5.0's proposal was the most competitive solar proposal of those it received in response to

its request for proposals. Additionally, Tampa Electric Company submitted corroborating information regarding the competitiveness of the Energy 5.0 proposal. The confidential price has been shown to be competitive based on information available on other PPAs and advantageous when compared to Florida self build projects.

Energy 5.0 has the resources, talent and experience to design, permit, finance, construct and operate the Florida Solar I Project as provided in the PPA. We are pleased, despite the significant costs already incurred, that we have been able to move this important project to its current state of readiness after a period of unprecedented turbulence in financial markets. We are committed to delivering a showcase renewable energy project for Tampa Electric, its customers and the state of Florida. We believe that in addition to all of the benefits of renewable energy supply, the Florida Solar 1 Project will also provide substantial economic development for central Florida and Polk County in particular.

We trust that this information constructively addresses the matters before the Commission in this docket.

Cordially yours,

Robert Scheffel Wright

COPY: Bernard H. Cherry
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