FILED NOV 05, 2015 DOCUMENT NO. 07071-15 FPSC - COMMISSION CLERK

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:

November 5, 2015

TO:

Carlotta S. Stauffer, Commission Clerk, Office of Commission Clerk

FROM:

Jenny X. Wu, Economic Analyst, Division of Economics

RE:

Place a document into Docket No. 150211-EI

Ms. Stauffer,

Please place the attached emails as a document into the above docket. These emails serve the purpose of providing clarifications from Tampa Electric Company regarding its responses to Staff's First Set of Data Request and its petition filed in this docket.

Thank you,

Jenny Wu Economic Analyst, Division of Economics

Jenny Wu

From:

Stiles II, Billy J. <wjstiles@tecoenergy.com>

Sent:

Wednesday, November 04, 2015 3:37 PM

To:

Jenny Wu

Cc:

Ashburn, Bill R.; Bill McNulty; Beasley, Jim; REGDEPT REGDEPT

Subject:

Tampa Electric Response to Data Request - Solar PV Depreciation Rates - Docket No. 150211-EI

Jenny,

Below are Tampa Electric's responses to the 4 questions included in your November 2nd follow-up data request.

Please let me know if you have any further questions.

Thank you, Billy

Wilbur J. "Billy" Stiles, II Manager Regulatory Affairs Tampa Electric Company 106 E. College Avenue Suite 630 Tallahassee, FL 32301

Office: 850-681-6785 Mobile: 850-294-6589 FAX: 850-681-9808

Email: wjstiles@tecoenergy.com



Tampa Electric Company's Response to follow-up questions to Staff First Data Request No. 1.a. Docket No. 150211-El

In TECO's response to Staff's First Data Request, No. 1.a, it says "At 25 years, the panels are expected to perform at more than 80% of the minimum peak power."

- 1. Could TECO please define the term "peak power" in this case?
- A: Peak Power is defined as the rated Watt peak at Standard Test Conditions.
- 2. What is mean by the "minimum" peak power?
- A: Minimum peak power is a manufacturer rating. It is defined as Peak Power minus peak power tolerance or the minimum rated power, as shown on the label. Essentially, manufacturers will guarantee that their panel's actual power rating will not be less than a specified amount coming out of the box. This may have several names including peak

tolerance rating, minimum warranted power, and negative tolerance rating. Regardless of the name, this means that a 325 watt solar panel, with a negative tolerance rating of 10% (or a minimum power rating of 90%) is only warranted for 292.5 watts out of the box.

- 3. Assume a solar PV generating unit's peak power is x kW, is it true that the minimum of the peak power could be zero kW?
- A: Please see answer to guestion number 2.
- 4. Could TECO please provide more clear language regarding the manufacture's guaranteed maximum performance at 25 years? An example of the language can be referenced to PSC-08-0731-PAA-EI: "SunPower warrants that the solar panels will produce at least 80% of their rated power output at the end of 25 years."
- A: SolarWorld guarantees a maximum performance digression of 0.7% per annum in the course of 25 years with the first year output warranty of 97%. The SolarWorld 25 year warranty includes a minimum 80.2% performance power output warranty period of 25 years. This means the SolarWorld panels should be performing at least 80.2% of their rated output in year 25.

SolarWorld differs from other manufacturers in that their performance warranty is linear. The industry standard output warranty is 90% output in year 10 and 80% output in year 25. The solar industry standard is a conservative estimate of 3% degradation in the first year and less than 1% per year after that.

From: Jenny Wu [mailto:JWU@PSC.STATE.FL.US] Sent: Monday, November 02, 2015 3:53 PM

To: Stiles II, Billy J.

Cc: Ashburn, Bill R.; Bill McNulty; Beasley, Jim; REGDEPT REGDEPT **Subject:** RE: Solar PV Depreciation Rates - Docket No. 150211-EI

Importance: High

Good Day Mr. Stiles.

I'm seeking clarification for another issue in this docket.

In TECO's response to Staff's First Data Request, No. 1.a, it says "At 25 years, the panels are expected to perform at more than 80% of the minimum peak power."

- 1. Could TECO please define the term "peak power" in this case?
- 2. What is mean by the "minimum" peak power?
- 3. Assume a solar PV generating unit's peak power is x kW, is it true that the minimum of the peak power could be zero kW?
- 4. Could TECO please provide more clear language regarding the manufacture's guaranteed maximum performance at 25 years? An example of the language can be referenced to PSC-08-0731-PAA-EI: "SunPower warrants that the solar panels will produce at least 80% of their rated power output at the end of 25 years."

Thank you for your help,

Jenny Wu

Economic Analyst
Division of Economics
Florida Public Service Commission

Telephone: (850) 413-7005

Fax: (850) 413-7006

Jenny.Wu@psc.state.fl.us

From: Stiles II, Billy J. [mailto:wjstiles@tecoenergy.com]

Sent: Monday, November 02, 2015 9:26 AM

To: Jenny Wu

Cc: Ashburn, Bill R., Bill McNulty; Beasley, Jim; REGDEPT REGDEPT **Subject:** RE: Solar PV Depreciation Rates - Docket No. 150211-EI

Jenny,

Thank you for your inquiry regarding the subaccounts to be used by Tampa Electric for recording investments in solar PV generating units, and whether Tampa Electric will separately account for these investments. It is Tampa Electric's intention to record solar PV generating units in subaccounts so that the investments in these assets will be separately identified within Tampa Electric's plant accounts. At this time Tampa Electric has not yet identified the specific subaccounts in which to record these investments; however, the subaccounts will be set up prior to the in-service date of any solar PV units.

Please let me know if you have any further questions.

Thank you, Billy

Wilbur J. "Billy" Stiles, II Manager Regulatory Affairs Tampa Electric Company 106 E. College Avenue Suite 630 Tallahassee, FL 32301

Office: 850-681-6785 Mobile: 850-294-6589 FAX: 850-681-9808

Email: wistiles@tecoenergy.com



From: Jenny Wu [mailto:JWU@PSC.STATE.FL.US]

Sent: Friday, October 30, 2015 11:01 AM

To: Beasley, Jim

Cc: Ashburn, Bill R.; Stiles II, Billy J.; Bill McNulty

Subject: RE: Solar PV Depreciation Rates - Docket No. 150211-EI

Importance: High

***** This email is from an external sender. Be cautious about clicking links or opening attachments from unknown sources. Please forward suspicious phishing emails as an attachment to

phishing@tecoenergy.com for analysis by our messaging and cyber security teams. *****

Good Morning Mr. Beasley.

I have some accounting concern needs to be clarified. In TECO's petition, paragraph 5, it states:

The resulting 3.3 percent depreciation rate was authorized in that order to be used for subaccounts 303 (Intangible Plant),

341 (Structures and Improvements), 343 (Other Generation Plant) and 345 (Accessory Electric Plant). Tampa Electric believes

that the 3.3 percent rate applies to these same subaccounts.

Could you please confirm with the Company that

TECO will use subaccounts 303.00 (or 303.01, 303.02 etc.). 341.00, 343.00 and 345.00 to book all the assets associated with its solar PV generating units by plant; and the solar PV generating units-related assets will not be booked directly in main or sub-accounts so as not to be mingled with all the other existing assets in the corresponding accounts.

Thank you very much,

Jenny Wu

Economic Analyst
Division of Economics
Florida Public Service Commission

Telephone: (850) 413-7005 Fax: (850) 413-7006 Jenny.Wu@psc.state.fl.us

From: Jim Beasley [mailto:jbeasley@ausley.com]
Sent: Wednesday, October 28, 2015 3:44 PM

To: Jenny Wú Cc: Bill Ashburn

Subject: Solar PV Depreciation Rates - Docket No. 150211-EI

Jenny,

In response to your request for a brief explanation of why Tampa Electric requests a December 31, 2015 effective date for the new depreciation rates, the company needs to have approved rates for plant in service in 2015 for reporting purposes. December 31 will also be consistent with the expected late December 2015 commissioning of the project. Thanks.

Jim

James D. Beasley Ausley McMullen 123 South Calhoun Street P.O. Box 391 (32302) Tallahassee, FL 32301 (850) 425-5485 (direct) (850) 222-7560 (fax) (850) 545-8458 (cell)

NOTICE: This email is intended only for the individual(s) to whom it is addressed and may contain confidential information. If you have received this email by mistake, please notify the sender immediately, delete the email from your system and do not copy or disclose it to anyone else. Although we take precautions to protect against viruses, we advise you to take your own precautions to protect against viruses and we accept no liability for any which remain.