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December 13, 2017

VIA: ELECTRONIC FILING

Ms. Carlotta S. Stauffer
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

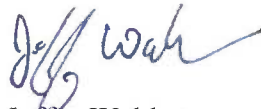
Re: Petition by Tampa Electric Company to Close to New Business all Existing Lighting Rates and Approve new LED Lighting Rates and Tariffs for a Street and Outdoor Lighting Conversion Program; Docket No. 20170198-EI

Dear Ms. Stauffer:

Attached are Tampa Electric Company's responses to Staff's Third Data Requests (Nos. 1-4), propounded and served by electronic mail on December 8, 2017.

Thank you for your assistance in connection with this matter.

Sincerely,



J. Jeffrey Wahlen

JJW/pp
Attachment

cc: Sevini Guffey (w/attachment)

**TAMPA ELECTRIC COMPANY
DOCKET NO. 20170198-EI
STAFF'S THIRD DATA REQUEST
REQUEST NO. 1
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- 1.** In the letter dated November 20, 2017, Tampa Electric refers to a streetlight conversion program approved in the past for Florida Power & Light Company (FPL). Please confirm that Tampa Electric is referring to Docket No. 160245-EI, Petition for approval of a new optional pilot LED streetlight tariff, by Florida Power & Light Company. If Tampa Electric is referring to a different FPL docket, please provide the docket number.

- A.** No. Tampa Electric is referring to Order No 9974 issued April 24, 1981 in FPL's "Energy Management Plan for the Eighties" where FPL had its street and outdoor lighting conversion program originally approved.

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2. Under the approved FPL conversion program in Docket No. 160245-EI, customers choosing to convert from HPSV to LED lighting under the LED Lighting Pilot (rate schedule LT-1) tariff are assessed a \$0.97 per fixture LED Conversion Recovery Fee. Please provide a discussion if a program similar to FPL's would work for Tampa Electric. If not, please explain why.
 - A. Tampa Electric believes the proposed Conservation Street and Outdoor Lighting Conversion Program is preferable approach to meeting the needs of the communities in our service area. It is important to understand the significant differences between the FPL LED Lighting Pilot and Tampa Electric's proposed Conservation and Outdoor Lighting Conversion proposal.

FPL's tariff is not a conservation program but rather a lighting tariff with an additional charge for customers who seek to convert their existing lighting to LED. Tampa Electric is seeking to cost-effectively convert all of its existing HPS and MH lights to LED whereas FPL did not seek a service area-wide conversion.

FPL's tariff is a pilot at the end of which FPL expects to come back to the Commission and seek to either extend, revise or cease the tariff approach that has been approved. Tampa Electric's Program is a permanent conservation program (until all the luminaires have been converted during the 5-year period), which at the end of the 5-year period of conversion, will result in no more HPS or MH service to customers and LED would be the only service provided.

Because the FPL program is dependent on customers seeking to take part, the energy and demand saving benefits that will accrue to the benefit of all ratepayers will be limited to the amount achieved by customers seeking to participate. Tampa Electric has shown with its program that there are substantial energy and demand benefits from its wholistic approach and such benefits will accrue to all ratepayers in such a manner that the RIM test result is positive.

Because FPL's approach is dependent on customers approaching them, FPL savings are limited as they may be unable to buy new LED luminaires in bulk quantities. One of the major reasons that Tampa Electric can bring the LED bills down to the bill level of the HPS and MH lights is the scope and magnitude of the conversion that permitted reduced cost of LED luminaire from vendors and mass conversions savings from contractors.

The FPL approach includes a charge to the customer considering conversion which will be a barrier to customers desiring to take advantage of the benefits of LED lighting. The charge being imposed is an average of all luminaire types

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rather than established at various levels based on the cost of the luminaire being considered for conversion. This will be a major barrier for less expensive lights (the types often used by municipal and county lighting departments for lighting) and less of a barrier to more expensive lights such as are used for flood lighting or for fancy fixtures in upscale subdivisions. Tampa Electric will recover these costs through the conservation cost recovery clause because the entire program will provide energy and demand savings that benefit all of Tampa Electric's customers (including lighting) and will be shared by all customer classes that receive that benefit.

FPL's approach requires the customer to sign a new 10-year service contract in order to receive the conversion. Tampa Electric is not requiring such a new contract in order to encourage customers to participate and to reduce the time and administrative burden needed to achieve customer acceptance of the contract, assure signature and commitment. This is a key element to assure near universal customer participation and maximum conservation benefits from the Tampa Electric program.

As indicated above, Tampa Electric believes its proposed conservation program approach is a superior way to convert existing street and outdoor lighting to LED technology; therefore, Tampa Electric does not want to proceed with a Pilot tariff approach. The proposed 5-year period is doable under the proposed approach, however if another approach using something like what FPL is doing in its pilot were undertaken, the conversion period for all Tampa Electric lights might take a substantially longer period and would not be as cost-effective for customers since the cost of luminaire replacements would be higher because fewer would be bought from suppliers under that approach.

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3. Please provide a calculation of a Conversion Recovery Fee for the 209,821 non-LED fixtures Tampa Electric is proposing to convert, similar to the calculation FPL provided in response to Staff's First Data Request No. 14, in Docket No. 16024-EI. The Conversion Recovery Fee would allow Tampa Electric to recover the \$37,780,595 unamortized depreciation value of the non-LED lights (as opposed to recovering the \$37M through the Energy Conservation Cost Recovery Clause).
- A. The approach utilized in the FPL data request response, which would result in the same conversion recovery fee being applied to each type and vintage of light being converted, arguably results in subsidy being applied to customers with higher priced and newer installed lights compared to a subsidization being applied to customers with lower priced and older installed lights. Because this fee is being paid by each customer who indicates a desire to convert, Tampa Electric does not believe that using one fee rate is appropriate. Under Tampa Electric's proposed program, the recovery of the cost is spread across all customers who benefit from the reduction in energy and demand that occurs during the conversion, and the individual lighting customer who considers conversion is not faced with an extra fee that is not likely to represent the unrecovered cost of their existing luminaires to be converted.

Tampa Electric notes that the FPL "fee" is a fixed number that does not change during its 3-year pilot tariff period. The company did not pursue a conversion recovery fee approach as that could demotivate existing lighting customers from converting to more cost-effective lights. See response to question 2 this set for other concerns Tampa Electric has with the FPL approach as to how to set the fee and its impact on conversion acceptance by customers.

Using the approach shown on the FPL discovery response, the calculation is as follows:

- 209,821 HPS and MH Street Light Fixtures in service
- These fixtures have a remaining value of \$37,780,595
- This equates to an undepreciated value of \$180.06
- Removal cost is 0.17 man-hours @ \$41.60 per man-hour = \$7.07 (1)
- Adding removal cost of \$7.07 = \$187.13
- With a depreciation factor of 4.97% and cost of capital of .08919% this equates to a yearly cost of \$10.13 as follows: $\$187.13 * .0497 * 1.08919 = \10.13 (2)
- $\$10.13 / 12$ months = \$0.84 per month

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- (1) Tampa Electric does not know how FPL derived the 0.96 man-hours, which appears to be the time required to both remove the existing luminaire and to install the new LED luminaire. The Tampa Electric value is simply the time to remove two screws and remove the existing luminaire, plus some travel time. Tampa Electric also does not know how the \$97 per man-hour rate was derived. The Tampa Electric value is the hourly rate for a contractor who would be doing the conversion plus adders.
- (2) Deriving the fee in this manner results in an average recovery fee for all lights, regardless of vintage and regardless of initial cost of the light. Additionally, the fee appears to be evergreen in the tariff with no end to recovery for luminaire rate base that has been removed. Tampa Electric notes a typo in the FPL formula where "1.04" should have been "0.04".

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4. Please refer to TECO's petition, Exhibit D, in Docket No. 20170199-EI, and TECO's response to Staff's 1st Data Request, No. 10, in Docket No. 20170198-EI.

- a) Are the bill impacts of the proposed DSM program for lighting customers shown in Exhibit D inclusive of the proposed DSM program cost recovery (cost recovery of MH and HPS luminaires (e.g. for residential customers, \$0.533 cents per month at 1200 kwh; presumably different for lighting customers)?
- b) If not, why not?
- c) If not, what are the Exhibit D bill impacts including the proposed DSM program cost recovery?

A. a. No.

- b. Tampa Electric filed the petition in early September 2017 but did not expect a Commission decision regarding the petition before November 2017 or December 2017. Importantly, Tampa Electric did not include the expected impacts to the ECCR clause to occur before January 2018. Hence, for the first year or more of the rate proposals the bill impacts would reflect the ECCR rate levels proposed for 2018.

Changes to the ECCR rate levels to reflect recovery of the undepreciated rate base associated with the conversion program are not the only changes that can be expected to occur to rates during the 5-year term of the program. While the recent settlement that will increase base rates for solar investments in four tranches through 2021 will not affect fixture costs for lighting (including luminaires) there will be increases to the lighting energy base rates. As those base energy rates rise, the impact will be greater on the HPS and MH bills thus affecting the bill impacts. Additionally, as solar energy increases on the system as a result of the solar investments, fuel rates should moderate which will benefit the HPS and MH bills more. However, should fossil fuel prices go up, that will be an adverse impact on HPS and MH bills. Additionally, should tax reform come about and base rates need to be reduced, on a bill basis that will benefit LED more than HPS and MH bills. Given what appeared to be upcoming volatility in billing impact on HPS and MH during the 5-year term of the

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program, the initial impact assuming the program would start in January 2018 was applied.

Historically, Tampa Electric is requested to provide the ECCR Clause impact to a residential customer for any proposed DSM program the company is petitioning for including establishing the company's DSM Plan. The cost impact to a residential customer provides a good reference point that is understandable and relatable for the approximate cost impacts of the proposed program to all customers due to the clause being funded by all of Tampa Electric's customers.

- c. At this time, the company projects the overall impact to a lighting customer to be approximately 55 cents per 1,000 kWh or 66 cents per 1,200kWh