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January 29, 2020

-VIA ELECTRONIC FILING -

Adam Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 20190223-EI

Dear Mr. Teitzman:

Enclosed please find Florida Power & Light Company's responses to Staff's First Data Request (Nos. 1-13) in the above referenced docket.

Should you have any questions regarding this filing, please contact me.

Sincerely,

s/ David M. Lee
David M. Lee

Attachments
cc: Counsel for Parties of Record (w/ attachments)

CERTIFICATE OF SERVICE
Docket No. 20190223-EI

I HEREBY CERTIFY that copies of the foregoing has been served via electronic mail to the parties listed below on this 29th day of January 2020 to the following:

Suzanne Brownless
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850
sbrownle@psc.state.fl.us

By: *s/ David M. Lee*
David M. Lee
Florida Bar No. 103152

QUESTION:
Paragraph 13 of the petition states that the number of LED fixtures installed increased from 1,691 to over 195,000 during 2016 to 2019. Please state types of customers who have installed the LED lighting and their numbers.

RESPONSE:
Please see the list below for the types of customers that have installed LED fixtures from 2016 to 2019, including the percentage and total number of LED fixtures installed by type of customer:

- Municipalities - 92,841 or 47%
- Homeowners Associations - 62,866 or 32%
- County - 26,457 or 14%
- Commercial - 11,154 or 6%
- Property Associations - 2,182 or 1%

QUESTION:
Paragraph 13 of the petition also states that FPL has a pipeline of customers interested in new LED fixtures and conversions to LED lighting. Please state the approximate number and type of customers in the pipeline.

RESPONSE:
FPL has approximately 735 customers who have expressed an interest in either new LED fixtures or conversions to LED lighting fixtures. The types of customers who have expressed an interest include: Commercial, Homeowners Associations, Municipalities, County, Property Associations and State.

QUESTION:
Paragraph 13 refers to "over 195,000 LED fixtures" installed, while paragraph 17 refers to "over 194,000 LED fixtures" installed. Please clarify the discrepancy.

RESPONSE:
These two numbers, while similar, refer to two different pieces of information. The reference to 195,000 LED fixtures in paragraph 13 of the petition is referring to the total number of LED fixtures that have been installed as of a single point in time, October 2019. The reference to 194,000 LED fixtures in paragraph 17 of the petition is referring to the number of LED fixtures installed during the time of the LT-1 pilot. As was stated in paragraph 13, FPL did have some LED fixtures installed prior to the LT-1 tariff.

QUESTION:
Paragraph 20, section b) states that in the LED matrix, FPL used a standard $3.00 range within each fixture tier. Is this $3.00 range standard to FPL or to the LED lighting industry? If FPL standard, how did FPL derive the $3.00 fixture tier range?

RESPONSE:
The $3.00 range between tiers was developed by FPL. For example, customers selecting fixtures in the $235.67 to $471.33 range would have had a monthly fixture charge in the $3.00 to $6.00 range. Under the FPL LT-1 tariff, these customers are paying $4.50 per month under Tier 2. FPL designed the LT-1 tariff to group fixtures into Tiers and allow for flexibility in changes to fixture pricing without having to adjust a customer's bill. FPL felt given the span of fixture costs that a +/- $1.50 range was reasonable for customers to accept, and as a result FPL has not received any customer complaints on the matrix approach.

QUESTION:
Paragraph 21, section a) of the petition states that annual hours of darkness is used when calculating the kilowatt demand for a LED fixture. Please state the annual hours of darkness used to calculate the kilowatt demand and how FPL derived this calculation.

RESPONSE:
The annual hours of darkness used in calculating the kilowatt hour is 4,240. The average hours of darkness per month is 353.3 (4,240/12 = 353.3). This is consistent with the formula in the PL-1 tariff.

QUESTION:
Paragraph 21, section b) of the petition states that FPL used a standard $0.20 range within each energy tier in the LED matrix. Is this $0.20 range standard to FPL or to the LED lighting industry and how did FPL derive the $0.20 range?

RESPONSE:
The $0.20 range between tiers was developed by FPL. For example, for customers selecting fixtures with wattages in the 28W to 46W range, the monthly energy charge would have been between $0.30 and $0.49. Under FPL's LT-1 tariff, these customers are paying $0.40 per month under Tier "C". FPL designed the LT-1 tariff to allow for flexibility in changes to wattages without having to affect customer bills. FPL felt given the energy range across all fixtures that a +/- $0.10 range was reasonable for customers to accept, and as a result FPL has not received any customer complaints on the matrix approach.

QUESTION:
Paragraph 23 of the petition refers to two types of lighting: FPL-owned fixtures on FPL-owned poles and FPL owned fixtures on customer-owned poles. Please state the number of poles in each category under the LT-1 tariff. What are the financial and non-financial advantages or disadvantages to LT-1 customers such as HOAs, builders, parks, municipalities, or businesses having FPL-owned fixtures on FPL-owned poles or having FPL-owned fixtures on customer-owned poles? What factors influence whether a customer uses an FPL pole or its own pole for lighting?

RESPONSE:
Of the currently installed LED fixtures, less than 1% are FPL owned fixtures on customer owned poles. For new installations or existing FPL lighting facilities, we are only offering FPL owned fixtures on FPL owned poles. For existing customer owned lighting facilities, we are offering to replace the customer owned fixture with a FPL owned fixture.

The advantages for a customer who has customer owned lighting is that FPL can offer them to convert to LED lighting for a monthly fee without the customer having to make an initial investment. An additional benefit in this scenario is the customer can have FPL maintain the LED fixture for the customer. The customer does not have to replace his/her entire infrastructure which can be very costly.

QUESTION:
Page 1 of the petition and the concluding paragraph of the petition is seeking Commission approval of the revised permanent optional LED LT-1 tariff and LT-1 Agreement. However, paragraph 16 of the petition states that the LT-1 Agreement in Exhibit C is attached for reference purposes and as correctly stated in Paragraph 8 of the petition, the LT-1 Agreement was approved in Order No. PSC-17-0115-TRF-EI, in Docket No. 20160245-EI. Please explain if this is a scrivener's error and if not, why the Company is seeking re-approval of the LT-1 Agreement.

RESPONSE:
The LED LT-1 Tariff and the LT-1 Agreement were both approved as a pilot by Commission Order No. PSC-2017-0115-TRF-EI, which states:

> By the end of December 2019, FPL shall file a petition with the Commission to make permanent, modify, or terminate the optional LT-l tariff and accompanying LED Agreement.

Although FPL is not requesting any changes to the text of the LT-1 Agreement as part of its petition, FPL is seeking to make the LT-1 Agreement a permanent Tariff Agreement as opposed to a pilot. FPL believes this request is in compliance with the Commission Order No. PSC-2017-0115-TRF-EI.

QUESTION:
Paragraph 20 of the instant petition provides an example of a Tier 5 fixture charge (installed cost) ranging from $738.57 to $923.21. In the pilot program tariff in Docket No. 20190245-EI, paragraph 11b) shows the installed costs ranging from $942.67 to $1,178.32. a) Please explain the reasons for the installed cost changes and referring to paragraph 20(b) of the instant docket, and b) please provide the calculation of the monthly $12.00 fixture cost based on the $738.57 installed costs showing and explaining all steps and inputs of the calculation.

RESPONSE:

a. In reviewing Paragraph 20b) of the instant petition, FPL found an error. The Tier 5 range is incorrectly referenced. The range for Tier 5 is in fact $942.67 to $1,178.32 as stated in Docket No. 20160245-EI, Paragraph 11b) and Exhibit D. In addition, the cost of the Autobahn ATB2 is $1,042.91, not $769.65 as stated, which falls under Tier 5.

b. The monthly fixture cost of $12.00 is calculated using the following inputs:
    - The fixture cost of $942.67 * 15.27% (fixture carrying charge which includes cost of capital, depreciation, property tax, and insurance costs) = $143.95
    - $143.95 * 1.00072052 (revenue tax factor) = $144.05 per year
    - $144.05 / 12 (reduce to per month basis) = $12.00

QUESTION:
Paragraph 21, section c) of the instant docket provides an energy charge example for the Autobahn fixture indicating the manufacturer rating at 268 watts. In the pilot program in Docket No. 20160245-EI, paragraph 12(c) indicates the rating at 260 watts. Please explain the difference in wattage ratings for the Autobahn fixture example.

RESPONSE:
The original filing, pilot Docket No. 20160245-EI, paragraph 12(c) referenced the Autobahn ATBL fixture. The instant docket references the Autobahn ATB2 fixture.

In an effort to keep the example in using the same tier, we used the Autobahn ATB2 268 watt fixture instead of the Autobahn ATBL 259 watt (formerly 260 watt) for illustration purposes.

QUESTION:
Referring to paragraph 21, section c) of the instant docket, please show the calculation that arrives at the $2.80 energy charge for a 268 watt fixture. Show each step and input for the calculation.

RESPONSE:
The calculation for determining the energy charge is the following:

- The energy charge for streetlights is based on an average of 353.3 hours of darkness per month (i.e. 4,240 hours of darkness per year/12 months)
- The non-fuel energy charge for LED street lighting is $0.03041/KWH
- KWH/Month = Watts * 353.3/1000
- KWH/Month for the 268 Watt fixture = 268 * 353.3/1000 = 94.68
- 94.68 KWH/Month * $0.03041/KWH = $2.88
- This monthly cost of $2.88 falls into energy tier "O" which encompasses all fixtures using between $2.70 and $2.89 per month in non-fuel energy
- Energy tier "O" is billed at $2.80/month (the mid-point of the non-fuel energy cost range for these fixtures).

QUESTION:
Paragraph 23 of the petition and proposed revised tariff sheet 8.737 indicates a monthly maintenance charge of $1.29 per fixture on FPL-owned poles and $1.03 per fixture for customer-owned poles as opposed to current maintenance charges of $1.82 and $1.27. Please explain the reasons for the cost differences. Please explain the reasons for the cost differences and show the calculations for the $1.29 and $1.03 maintenance charge per fixture. Show each step and input for the calculations.

RESPONSE:
For fixtures on FPL-owned poles, the monthly maintenance charge changed from $1.82 to $1.29 due to the following:

- The annual cost per billed fixture decreased from $20.62 to $15.47 per billed fixture ($15.47 / 12 = $1.29).
    - The reduction is a combination of reduced maintenance costs and higher fixture count.

For fixtures on customer-owned poles, the monthly maintenance charge changed from $1.27 to $1.03 due to the following:

- In revisiting the data, approximately 20% of the maintenance expense is related to pole, conductor, or cable repair. These specific repairs will not be required for hybrid light circuits, because the customer will remain in ownership of those facilities, and FPL will only be responsible for the fixture maintenance. Therefore, the maintenance factor for these fixtures is set at 80%.
- $1.29/month * 0.80 = $1.03/month

QUESTION:
Paragraph 24 of the petition and proposed revised tariff sheet 8.737 indicates a LED conversion recovery charge of $1.87 per fixture as opposed to the current conversion recovery charge of $1.03 per fixture. Please explain the reasons for the cost difference.

RESPONSE:
The cost difference results from a combination of updated assumptions along with a correction to the underlying cost recovery formula.

1. Quantity and Net Book Value of lights to be converted: Since pilot inception, the number of High Pressure Sodium Vapor lights installed has increased by approximately 60,000, along with a Net Book Value increase of approximately $25 million. In addition, approximately 50,000 Mercury Vapor lights with a Net Book Value of $1.3 million are now included since the intent of LT-1 is to convert all existing lights to LED. As a result, the Net Book Value per light has increased from $173.47 to $183.81.

2. Removal cost of lights: The estimated time required to remove a light decreased from 0.96 hour to 0.19 hour along with a decrease in the estimated hourly rate from $97.00 to $76.21. As a result, the removal cost per light decreased from $93.12 to $14.48.

3. Cost of Capital (carrying cost): In the pilot, a 9.392% pre-tax cost of capital was utilized whereas the revised tariff utilizes a 10.36% pre-tax cost of capital.

4. Conversion fee cost recovery formula: In the pilot tariff, the formula used to calculate recovery of the monthly conversion fee contained an error that resulted in an understated monthly fee. In the proposed revised tariff sheet, the formula was updated whereby recovery of the conversion cost is levelized over a 25-year period. In Microsoft Excel, a levelized payment is calculated using the “PMT” function, whereby the principal amount (Net Book Value plus removal costs to be recovered), the interest rate (10.36% cost of capital), and the term of recovery (25 years) were utilized and resulted in a $22.45 per fixture-year or $1.87 per fixture-month fee. Also, please see Exhibit F to FPL’s Petition.