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January 19, 2021

VIA: ELECTRONIC FILING

Mr. Adam J. Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

In re: Petition of Tampa Electric Company for approval of Direct Current Microgrid
Pilot Program; Docket No. 20200234-EI;

Dear Mr. Teitzman:

Attached for filing in the above docket are Tampa Electric Company's responses to Staff's
Second Data Request (Nos. 1-7), propounded on December 28, 2020.

Thank you for your assistance in connection with this matter.

Sincerely,



Malcolm N. Means

MNM/bmp
Attachment

cc: All Parties of Record (w/attachment)
Suzanne Brownless, Special Counsel, FPSC (w/attachment)

**TAMPA ELECTRIC COMPANY
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1. Please refer to Paragraphs 6, 25, 62, and 63 of the Petition where TECO indicates that the petitioned Direct Current Microgrid Pilot Program involves “new and innovative technologies” and respond to the following questions:

- a. Assuming the Petition is granted by the Commission, does TECO envision that it will need to request approval of new depreciation accounts/subaccounts, with corresponding depreciation rates, to record the new categories, if any, of tangible and/or intangible assets that are to be installed?
- b. If your response to Question No. 1.a is affirmative, please identify the new plant categories, proposed depreciation rates and effective date, if known to the Company at this time.

A. a. Yes, for the reciprocating generator associated with the Community Energy Park. This generator is dispatched and not used for backup power purposes. The Rooftop solar panels and related battery storage in the Community Energy Park also need to be isolated from the Utility scale solar and battery storage accounts/subaccounts in 341.99, 343.99, 345.99 and 348.99

- b. Tampa Electric will need to request the following plant accounts/subaccounts:
 - 341.98 Str and Improvements-DC Microgrid
 - 343.98 Prime Movers-DC Microgrid
 - 345.98 Accessory Elect Eq-DC Microgrid
 - 348.98 Energy Storage Battery Equip-DC Microgrid

For 341.98, 343.98 and 345.98 subaccounts; the initial average service life and net salvage factor for the rooftop solar component will be set to 30 years and 0%, respectively. This will calculate an initial whole life depreciation rate of 3.3%, which has already been approved for utility scale solar panels in subaccounts 341.99, 343.99 and 345.99; The initial average service life and net salvage factor for the generator component of the CEP generator component will be set to 15 years and 0% respectively, which requires a weighted average blending to yield a singular deprecation rate applied to the entire cost of both components embedded in those subaccounts.

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For the 348.98 subaccount, the initial average service life and net salvage of the CEP battery storage component will be set to 10 years and 0%, respectively. This will calculate an initial whole life depreciation rate of 10.0%, which has already been approved for utility scale solar battery storage in 348.99

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2. Paragraph 31 of the Petition reads “Tampa Electric and ETFI will initially operate the System under a one-year test period. Tampa Electric will retain the exclusive right to suspend the use of the System and switch to use of the AC distribution system at any time.” Please respond to the following questions:
- a. Are there plant additions associated with the System?
 - b. If your response to Question No. 2.a is affirmative, please identify, if known to the Company at this time, the plant additions and description, the amount of plant additions, as well as the affected depreciation accounts, associated with the System.
 - c. If your response to Question No. 2.a is affirmative, please explain how TECO intends to treat the un-depreciated portion of the System-related plant additions (i) after the one-year test period; and (ii) after TECO decides “to suspend the use of the System.”
- A.
- a. For the same 37 homes that are participating in the Pilot Program, a duplicate, standard underground AC distribution system (including cable, conduit, transformers etc.) is being installed, with a switch that can change serve to each home from the Pilot Program DC system to the AC system.
 - b. These assets are not “associated with the system” but merely serve as a backup during the Pilot Program to assure electric reliability can be maintained for the Pilot Program participants and, if the Block Energy System does not perform as anticipated and Tampa Electric decides to cease its operations, then the Pilot Program participants can be switched over the standard AC infrastructure with minimal difficulty. The cost of this AC system, which is all new infrastructure, is \$60,000.
 - c. Tampa Electric will place these AC assets in service and retain them in service for their expected service lives providing service to the 37 homes for the duration of the 1 year ETL pilot period, the 4 year Tampa Electric pilot period and thereafter for the foreseeable future. Should Tampa Electric elect “to suspend the use of the System”, meaning the DC Microgrid, then electric service will be switched for

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the 37 customers to the AC system installed and it will continue as a rate base asset.

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- 3.** Paragraph 32 of the Petition reads “[i]f Tampa Electric elects to unwind the Block Energy System based on system performance, ETFI is obligated at its sole expense to remove all components of the system for which use is discontinued (except for the Community Energy Park and installed solar panels), restore the development property to its prior condition, and refund the corresponding portion of the purchase price back to Tampa Electric.” Please clarify whether ETFI is required to refund the original installation costs of all components of the system which are to be removed in the described situation.

- A.** See Section 15.6(a)(ii) and (vii) of the EPC Agreement.

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- 4.** Paragraph 37 of the Petition reads “Tampa Electric will obtain an easement for each of the subject properties;” and Paragraph 39 of the Petition reads “Tampa Electric has the right to terminate the easement at any time.” Please explain how TECO intends to treat the un-depreciated portion of the easement if it decides to terminate the use of the easement.

- A.** Not applicable. Easement acquisition is a non-cash agreement between TECO and Home Builder.

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5. Referring to TECO’s Petition for Approval of Direct Current Microgrid Pilot Program (Petition), Paragraph 40, where the Company requests that the program-associated assets be afforded rate base treatment, please provide responses to the following questions regarding the cost recovery of the assets to be installed as part of the petitioned pilot program:

- a. Please identify the estimated total dollar amount, if known to the Company at this time, of the plant additions caused by and required for the Pilot Program.
- b. Please identify all the depreciation accounts, if known to the Company at this time, which would be affected by the Pilot Program.
- c. Paragraph 10 of the Petition reads “Tampa Electric plans for the Pilot to last four years.” Please explain how TECO intends to treat the associated plant assets, if any, whose installations, and operational functions, are purely caused by, and only serve the Pilot Program after four years when the Pilot Program is completed.

A. a. The following plant additions are for the parallel DC equipment necessary to tie-in the Block Energy System to the TECO grid. The parallel AC equipment would fall under basic service provided to each customer regardless of the pilot program (this cost is not shown below).

<u>DC Equipment</u>	<u>Plant Cost</u>	<u>Plant Account</u>
Conduit and Cable (TECO share):	\$ 40,000	366 & 367
Grid Interface Xfmr (13kV-480V):	\$ 36,000	368
13 kV Switchgear:	\$153,000	362
Fibre Optic Cable from SSTN to site:	\$ 61,000	397

- b. 366.00 Underground conduit appr depreciation rate = 1.8%
- 367.00 Underground conductor devices appr depreciation rate = 3.0%
- 368.00 Line transformers appr depreciation rate = 4.4%
- 362.00 Station equipment appr depreciation rate = 2.4%
- 397.25 Communication equip - Fiber appr depreciation rate = 5.3%

c. If any pilot program assets are not reusable and subsequently disposed/abandoned by TECO, that would trigger an early retirement and request for un-depreciated (remaining net book value) accelerated capital recovery amortization schedule, if material or written-off, if immaterial.

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- 6.** Please refer to Paragraph 66 of the Petition. In case the scenario of “sign[ing] over ownership of the rooftop solar panels to the homeowner’ happens, please explain how TECO intends to treat the un-recovered amount of capital investment associated with those rooftop solar panels.
 - A.** Transfer of ownership for TECO owned assets to a customer would be considered a sale of utility property. TECO would make postings into FERC 421.2 Loss on disposition of property for the un-recovered amount (remaining net book value).

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7. Please refer to Paragraph 66 of the Petition. In the case of the Block Energy System does not perform as anticipated, such that TECO then disconnects the home from the microgrid, please explain:
 - a. What is the intended disposition of the batteries, inverters, and other equipment (other than the solar panels) at that point?
 - b. How does TECO propose to account for the remaining net book value of these assets?

- A.
 - a. See response to data request No. 3 above.
 - b. If any pilot program assets are not reusable and subsequently disposed of by TECO that would trigger an early retirement and request for a remaining net book value accelerated capital recovery amortization schedule, if material or written-off, if immaterial.