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Public Service Commission

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STAFF'S FIRST DATA REQUEST VIA E-MAIL

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Re: Docket No. 20200234-EI - In re: Petition of Tampa Electric Company for approval of direct current microgrid pilot program and for variance or waiver of Rule 25-6.-65, F.A.C.

Dear Mr. Means:

Staff has completed its initial review regarding Tampa Electric Company's petition for approval of direct current microgrid pilot program and for variance or waiver of Rule 25-6.-65, F.A.C. Please provide responses to the following data and documents requests in the above-referenced docket with the Commission Clerk by Monday, January 11, 2021.

1. Explain if TECO is seeking a finding in this docket that the costs incurred to implement the Pilot Program are reasonable and prudent for recovery in its next base rate case. If so, please cite any relevant statutes and rules. If not, please explain.

a. Please identify and explain what financial risks, if any, there are to the general body of ratepayers if TECO's Pilot Program is approved.

b. Please identify under what mechanism(s) TECO will be seeking cost recovery for costs associated with the Pilot Program.

2. Please provide the annual and cumulative revenue requirements (in nominal and net present value) over the life of the Pilot Program. As part of this response please complete the table below in electronic (Excel) format.

	TECO				Microgrid		Pilot			Program	
	Nominal / NPV \$ million										
	Solar Panels	Block Boxes	CEP Batteries	CEP Gas Generation	AC Traditional Infrastructure	DC Infrastructure	Software	Fuel	O&M	Total	
2020											
...											
2050											
Total											

- a. What amount of the O&M is attributed to labor?
- b. Please detail any costs from the estimated total attributed to obligations associated with any of the agreements.
3. For the years 2020 – 2050, please detail the annual Capital and O&M expense associated with the software purchased from Emera Technologies, LLC.
4. Please refer to paragraph 6 of the petition. Provide the exact number of houses the system is being designed for.
 - a. As of December 1, 2020, how many houses have been constructed?
 - b. Please provide an estimated completion date for houses currently under construction, by month.
5. Please refer to paragraph 6 of the petition.
 - a. Is there a limit to the number of houses that can be included within the Pilot Program?
 - b. Would TECO require further approval from the Commission to include additional houses in the Pilot Program? Please explain why or why not.
6. Please refer to paragraph 6 of the petition. Provide the peak summer and winter demand being assumed for each house to design the Block Energy System.

7. Please refer to paragraph 9 of the petition.
 - a. Why are there no additional charges to participants in the Pilot Program?
 - b. Are potential Pilot Program participants informed by TECO that they will be billed the same rates as non-participants in the same customer class? If so, please detail how Pilot Program participants are informed of this fact. If not, please explain why not.
 - c. How are potential Pilot Program participants informed by TECO about the terms and conditions of the Pilot Program? Please provide a copy of these materials, if available.
 - d. Please provide a copy of all marketing materials used by TECO to advertise the Pilot Program to potential participants.
8. Please refer to paragraph 13 of the petition. Please explain how TECO is accounting for battery roundtrip efficiency losses within the microgrid, and how this would be accounted for in fuel costs/savings.
9. Please refer to paragraphs 13 of the petition. Regarding the Block Box, answer the following questions:
 - a. How many kilowatt-hours (kWhs) of battery storage does TECO anticipate to be located in each Block Box?
 - b. Provide the estimated \$/kilowatt (kW) and \$/kWh for the Block Box batteries.
 - c. What battery technology does TECO plan to use for each Block Box?
 - d. What alternative storage technologies did TECO consider for the Block Boxes, if any? As part of the response, provide the estimated \$/kWh for these alternatives.
10. Please refer to paragraph 13 of the petition. What is the average capacity of solar rooftop (in kW) expected to be installed on each home?
11. Please refer to paragraph 13 of the petition. Please provide a diagram of the Block Energy System. In the diagram, please include the customer's meter and arrows indicating the possible flow of electricity. Please provide a diagram for multiple scenarios of electricity flow.
12. Please refer to paragraphs 15 of the petition. Regarding the Community Energy Park (CEP) battery, answer the following questions:
 - a. How many kWhs of storage does TECO anticipate for the CEP?
 - b. Provide the estimated \$/kW and \$/kWh for the CEP batteries.
 - c. What battery technology does TECO plan to use for the CEP?

d. What alternative storage technologies did TECO consider for the CEP, if any? As part of the response, provide the estimated \$/kWh for these alternatives.

13. Please refer to paragraphs 15 of the petition. Regarding the gas-fired generation at the CEP, answer the following questions:

a. Please detail the gas fired technology planned to be utilized.

b. What is the approximate capacity of gas fired generation?

c. Did TECO consider any alternative distributed generation options for the CEP when designing TECO's Pilot Program? If so, please describe each option and why it was rejected.

14. Please refer to paragraph 18 of the petition. Please explain and provide a list of the priority use of excess generation for each scenario the microgrid is being designed for.

15. Please refer to paragraph 22 of the petition. Please provide a report of the Block Energy System installed at Kirtland Air Force Base in a manner similar to the annual reports TECO intends to provide for the Pilot Program.

16. Please refer to paragraph 22 of the petition. Please provide a comparison of the Block Energy System proposed in this Pilot Program to the one installed at Kirtland Air Force Base. As part of your response, please compare the technologies being used, any differences in operation, and the size of each system.

17. Please refer to paragraph 30 of the petition. When was the EPC Agreement signed? Please provide a copy of the signed EPC Agreement.

18. Please refer to paragraph 31 of the petition. Will a credit be issued to ratepayers if TECO permanently suspends use of the system? If not, please explain why.

19. Please refer to paragraph 33 of the petition. When was the Developer Agreement signed? Please provide a copy of the signed Developer Agreement.

20. Please refer to paragraph 35 of the petition. When was the Builder Agreement signed? Please provide a copy of the signed Builders Agreement.

21. Please refer to paragraph 45 of the petition. Will the final report provide a cost-effectiveness comparison between traditional infrastructure and the Pilot Program?

22. Please refer to paragraph 59 of the petition. Why is a rule waiver necessary if the homeowners are required to sign a Builder's Agreement?

23. Please refer to paragraph 66 of the petition. The petition states that if at the conclusion of the Pilot Program the system does not perform as anticipated, the company will sign over ownership of the rooftop solar panels to the homeowners and charge the homeowners \$1 for the rooftop solar panel. Please explain why TECO believes this is appropriate.

a. Please detail any additional necessary equipment homeowners need to make these panels compatible with TECO's traditional generation system.

b. Please detail the estimated cost associated with any additional necessary equipment homeowners need to make these panels compatible with TECO's traditional generation system.

24. What is the expected service life for each of the microgrid system components?

25. What, if any, analysis was performed to model the cost effectiveness of the microgrid versus traditional generation? Please provide the results of this analysis if available.

Should you have any questions or need more information regarding this data request, please contact me at (850) 413-6218 or sbrownle@psc.state.fl.us .

Very truly yours,

/s/ Suzanne Brownless

Suzanne Brownless
Special Counsel

cc: Commission Clerk