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December 18, 2020

VIA: ELECTRONIC FILING

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

Re: Petition for approval of electric vehicle charging pilot program, by Tampa Electric Company.
Docket No. 20200220-EI

Dear Mr. Teitzman:

Attached for filing in the above docket is Tampa Electric Company's Response to Staff's First Data Request (Nos.1-51), propounded on November 23, 2020.

Thank you for your assistance in connection with this matter.

Sincerely,

Malcolm N. Means

Malcolm N. Means

MNM/bmp
Attachment

cc: All Parties of Record (w/attachment)
Jeff Doehling, Engineering Specialist, FPSC (w/attachment)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing responses to Staff's First Data Request (Nos.1-51), filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 18th day of December 2020 to the following:

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ATTORNEY

1. Please provide the total number of Electric Vehicle Supply Equipment (EVSE) stations within TECO's service area. As part of your response, complete the table below detailing Direct Current Fast Chargers (DCFC) and all other charging stations by ownership.

Total EVSE Stations				
Non-Utility Owned		TECO Owned		
DCFC	All Other	DCFC	All Other	Total

A.

Total EVSE Stations				
Non-Utility Owned		TECO Owned		
DCFC	All Other	DCFC	All Other	Total
63	277	1	44	340

See response to Data Request Number 3.

2. Please provide a map of EVSE stations installed within TECO's service area. Indicate on the map whether the stations are owned by TECO or a non-utility entity and number of ports at each level of charging (DCFC, Level 2, or other). As part of your response, complete the table below.

EVSE Station Locations					
Address	TECO Owned (Y/N)	DCFC (Y/N)	Level 2 (Y/N)	Other (Y/N)	Total Ports

A.

EVSE Station Locations					
Address	TECO Owned (Y/N)	DCFC (Y/N)	Level 2 (Y/N)	Other (Y/N)	Total Ports
N/A	N/A	N/A	N/A	N/A	N/A

Tampa Electric does not maintain a map of EVSE installed within the utility service area. Instead, Tampa Electric utilizes existing web resources that provide mapping of EVSE locations and details, including number of ports and levels of charging available. Additionally, as Tampa Electric-owned stations are not promoted for public use or simply are not accessible by the public, those stations are not typically found on existing map sources. Tampa Electric provides the following resources available to access EVSE information as requested by Staff:

(https://www.plugshare.com/),(https://na.chargepoint.com/charge_point), (https://www.tesla.com/supercharger),(https://afdc.energy.gov/stations/#/find/nearest).

Tampa Electric station data is provided in the response to Data Request Number 3.

3. Please provide the cumulative number of EVSE ports installed within TECO's service area over the previous five years and predating 2015. As part of your response, complete the table below.

Cumulative EVSE Ports					
	Non-Utility Owned		TECO Owned		Total Installed
Year	DCFC	All Other	DCFC	All Other	
Pre 2015					
2015					
2016					
2017					
2018					
2019					
2020					
Total					

A.

Cumulative EVSE Ports					
	Non-Utility Owned		TECO Owned		Total Installed
Year	DCFC	All Other	DCFC	All Other	
Pre 2015	8	80	0	12	88
2015	12	81	0	25	93
2016	17	126	0	26	143
2017	27	163	0	36	190
2018	45	206	0	43	251
2019	57	250	0	44	307
2020	63	277	1	44	340
Total					

4. Please provide the estimated current and historic number of Plug-in Electric Vehicles (PEVs) operating in TECO's service area. As part of your response, complete the table below.

Year	Historic Number of PEVs
2015	
2016	
2017	
2018	
2019	
2020	

a. Provide the source(s) TECO used to compile the data above.

b. Explain the methodology used to compile the data above.

A.

Year	Historic Number of PEVs
2015	1,057
2016	1,653
2017	2,615
2018	3,666
2019	4,564
2020	5,459

a. Tampa Electric has used a variety of sources to compile the referenced data over the time period indicated, including purchase of data through a third-party, shared information secured from industry stakeholders such as Clean Cities Coalitions, and data gathered from other web resources such as Atlas EV Hub:

(https://www.atlasevhub.com).

b. Tampa Electric serves primarily Hillsborough County, along with portions of three other counties. To estimate the count of PEVs for Tampa Electric's service area, Tampa Electric calculates the saturation rate of PEVs for Hillsborough County, applies the same

saturation rate to the percent of residential customers served by Tampa Electric for each of the remaining counties and then add these county estimates together.

5. Please provide the projected number of PEVs operating in TECO's service area. As part of your response, complete the table below.

Year	Projected Number of PEVs
2021	
2022	
2023	
2024	
2025	

a. Provide the source(s) TECO used to compile the data above.

b. Explain the methodology used to compile the data above.

A.

Year	Projected Number of PEVs
2021	6,530
2022	7,815
2023	9,321
2024	11,052
2025	13,049

a. There are three primary sources used to create Tampa Electric's forecasted count of PEVs. 1) forecast of residential customers; 2) assumptions of the number of vehicles per household and vehicle turnover; 3) U.S. Department of Energy's Energy Information Administration's ("EIA") South Atlantic Region ("SATL") forecast of the percent of PEVs sales as a percent of total new car sales.

b. The forecast of residential customers, along with assumptions on the number of vehicles per household and vehicle turnover, is used to estimate Tampa Electric's current EV market potential or the total of new car sales. EIA's forecast [annual change] of PEVs sold as a percent of total new car sales is still too high relative to Tampa Electric's existing counts of PEVs over the past few years; so, the forecast uses EIA's SATL region's change in the annual change from year-to-year to grow Tampa Electric's count of PEVs.

6. Please provide the estimated annual impact of PEVs on TECO's system. As part of your response, complete the table below detailing the historic and projected impact on system demand and energy consumption.

System Impact of PEVs			
Year	Summer Peak Demand (MW)	Winter Peak Demand (MW)	Annual Energy Consumption (GWh)
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			

a. Provide the source(s) TECO used to compile the data above.

b. Explain the methodology used to compile the data above.

A.

System Impact of PEVs			
Year	Summer Peak Demand (MW)	Winter Peak Demand (MW)	Annual Energy Consumption (GWh)
2015	2.6	0.9	5.9
2016	4.3	1.6	9.5
2017	6.3	2.4	13.9
2018	9.0	3.5	18.2
2019	11.9	4.8	19.3
2020	13.8	5.6	23.1
2021	16.2	6.6	27.6
2022	18.9	7.8	32.9
2023	22.0	9.1	39.2
2024	25.3	10.6	46.4
2025	29.1	12.4	54.6

a. The source for estimating summer and winter demand and energy of PEV charging includes assumptions provided by Tampa Electric's EV program manager of the top EV models sold within the service area, including: percentage depletion of charge daily, average miles/charge, kWh/charge, and kW/EV.

b. Weighted averages, for the assumptions mentioned above, are created for the top EV models sold within the Tampa Electric service area. These are used to calculate weighted kWh/EV and kW/EV to create energy and demand projections. Used an estimate of 20% demand at the time of the summer retail peak and 10% demand at the time of the winter peak.

7. Please provide the pilot program's estimated rate impact for a single residential home using 1,000 kWh a month for each year of the pilot.

A. The overall cost for the project, as provided in the Petition, is $2,000,000 in capital and $100,000 per year for O&M for the four-year pilot period. Assuming a 20% fixed charge rate for the capital, the annual revenue requirement of the $2,000,000 is $400,000 and combined with the O&M makes a $500,000 total annual revenue requirement. Assuming 58% residential allocation, results in $290,000 residential divided by 9,587,060 MWH in 2021 results in a $0.03 per 1000 kWh bill.

This estimate assumes no positive rate impact from additional energy sales to EVs using the new portals. It is assumed EVs that use the new portals would have charged up in another manner elsewhere on the Tampa Electric system and thus there would be in incremental revenue benefit.

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

A. Other than the cost of the program being included for cost recovery through base rates, which impact is provided in response the Question No. 7 this set, there are no financial risks to the general body of ratepayers if the Pilot Program is approved. With respect to potential increased revenue from charging, see response to Data Request No. 7 above.

9. Please discuss in detail why TECO believes the general body of ratepayers should provide any cost support for TECO's Pilot Program. In your response, cite any relevant statutes and rules.

A. See response to Data Request Number 10.

10. Please discuss why it is in the public interest for TECO, as a regulated utility, to "purchase, install, own, and maintain approximately 200 EVSE ports within the company's service territory" when there are existing, private competitors in the market. In your response, cite the relevant statutes and rules that allow TECO to provide such service.

A. The activity described in the pilot constitutes the distribution and sale of electricity, which are activities that fall within the definition of a "public utility" found in Section 366.02(1) of the Florida Statutes. Tampa Electric will supply electricity to the Site Hosts. Those Site Hosts will pay standard tariff rates for any electricity utilized by the EVSE Port, just as they would for any other load installed behind the meter. Petition, at 24. This constitutes the distribution and sale of electricity to the public as contemplated by Section 366.02 of the Florida Statutes.

Tampa Electric will not be engaged in the direct provision of charging services to the general public through this pilot. It is up to the Site Host to determine whether they will charge drivers for charging, or whether they will offer it for free as an amenity. Petition, at 24.

Tampa Electric recognizes that the proposed company ownership of behind-the-meter assets is unusual, but this arrangement is entirely consistent with the goals and objectives of Section 339.287 of the Florida Statutes. In addition, providing utility owned assets behind the meter has occurred in the past and now. During the decades of the 1950s and 1960s utilities (including Tampa Electric) provided appliances under lease to customers converting from liquid and solid fuels to electric energy supply, and even today Tampa Electric provides switches and thermostats under conservation programs behind the customer meter. For this pilot, the company is proposing to deploy EVSE ports on a limited basis, and for the primary objective of providing Tampa Electric, and the Commission, with valuable knowledge regarding public PEV charging infrastructure.

This will further three specific goals set out in the statute. First, Section 339.287 directs the Florida Public Service Commission to consider strategies to evaluate and compare different types of EVSE, including "the circumstances within which each type of station and infrastructure is typically used." § 339.287(2)(c)2, Fla. Stat. The pilot is intended to study "customer charging behavior, including when and where charging is taking place, and PEV load patterns in a variety of locations." Petition, at ¶ 16. Second, Section 339.287 directs the Commission to consider strategies to develop the supply of charging stations, "including, but not limited to, methods of building partnerships with…electric utilities." § 339.287(2)(c)3, Fla. Stat.

The pilot will "evaluate the partnership between [Tampa Electric] and the Site Hosts, including how the Site Host encourages use of the charging equipment…" Petition, at 27. Third, the statute charges the Commission with "identifying the type of regulatory structure necessary for the delivery of electricity to electric vehicles and charging infrastructure, including competitive neutral policies and the participation of public utilities in the marketplace." § 339.287(2)(c)2-4, Fla. Stat. The pilot will provide the Commission with valuable data and insight regarding the potential role of utility-owned charging equipment in the marketplace, the relationship between utilities and EVSE site hosts, and customer habits that will inform the Commission's analysis of the appropriate regulatory structure for this growing market.

11. Section 366.02(2), Florida Statutes, defines an "electric utility" to mean any municipal electric utility, investor-owned electric utility, or rural electric cooperative which owns, maintains, or operates an electric generation, transmission, or distribution system within the state. Please explain whether and how TECO considers service provided pursuant to its proposed pilot program in Docket No. 20200220-EI to be generation, transmission, or distribution of electricity within the state. If the service provided pursuant to the pilot program is not generation, transmission, or distribution of electricity within the state, provide the specific statute or rule language that authorizes the Commission to approve the program.

A. See Response to Data Request No. 10, above. Through this pilot, Tampa Electric will distribute electricity to Site Hosts just as it would to any other customer. The Site Hosts will pay Tampa Electric standard tariff rates for the electricity consumed by the EVSE ports. Each port will distribute the energy provided under the standard tariff rates to the car charging customers.

12. Please identify any dockets where the Commission has approved an electric tariff or electric pilot program that does not involve the generation, transmission, or distribution of electricity.

A. Tampa Electric considers this pilot to constitute the distribution of electricity. Please see the Responses to Data Request Nos. 10 and 11, above. However, Tampa Electric does have a pilot program in effect that is a conservation program that provides chargers and a curriculum to some schools within its service territory to educate student drivers on the best way to drive an electric vehicle which, aside from providing some charging infrastructure at the schools which would be the distribution of electricity this is more of an education program for customers.

13. Please explain any alternatives considered when designing TECO's Pilot Program.

A. Tampa Electric considered several alternatives with respect to the design of the proposed pilot program. Alternatives were considered regarding which party would maintain ownership and be responsible for maintenance during the pilot period, which party would be facilitate billing/payment processing, and the number and type (Level 2 vs. DCFC) of charging units that would be included. Tampa Electric believes the design of the program, as submitted in the petition, will encourage site host interest in participation, while helping to achieve the data collection objectives for the duration of the pilot program.

14. Please refer to paragraph 13 of the petition for the following questions.

a. Explain how this pilot will improve "grid resilience through vehicle-to-grid (V2G) technologies."

b. Explain how PEV may avoid expensive grid upgrades through potential load control.

A. a. The intent of Tampa Electric's comments in paragraph 13 were to highlight emerging technologies that may yield future benefits "from the increasing number of PEVs in the company's service territory". Implementation of the technologies mentioned, including vehicle-to-grid (V2G) and load control are not in the scope of this pilot.

b. See response to Data Request Number 14a above.

15. Please refer to paragraph 13 and Exhibit A, Item 3D. Why is evaluating V2G capabilities beyond the scope of this pilot if building grid resilience through V2G is an anticipated benefit?

A. Although V2G holds promise for potential grid benefits as batteries play a much larger role in transportation, the current penetration of PEVs and the ongoing developments in V2G technology are not far enough along to warrant a pilot at this time. Furthermore, Tampa Electric believes that such a pilot, given the unique nature of the technology, would be best served by a pilot dedicated to evaluating V2G opportunities.

16. Paragraph 14 of the petition states, "Approval of Tampa Electric's proposed Pilot will enable the company to manage the program in a manner that will avoid certain challenges that might otherwise occur, such as a potential increase in peak demand, grid overloading, costs of fast charging and other obstacles." Please explain how and what process the Company will take during the pilot program to ensure that these things do not occur.

A. Although final processes have not yet been established and will be developed in coordination with an installation partner who has not been determined, Tampa Electric believes that having an active role, from the beginning, in determining the project scope for each installation, will provide opportunities to properly evaluate customer load and potential peak demand impacts, as well as evaluating impacts to the localized grid. Additionally, for DC fast charging, early assessment of proximity to existing power supplies in comparison to establishing new utility service will help to ensure that installations are being completed in the most cost-effective manner, and with the least impact the customer billing rate.

17. Please refer to paragraph 19 of the petition. Identify the locations that TECO intends to install the DCFC and why those locations were chosen for that type of charging station.

A. Tampa Electric has not yet identified locations where DCFC will be installed under this pilot. For additional information, please see response to Data Request No. 18 below.

18. Please refer to paragraph 21 of the petition. Explain each step of the application process for site hosts. Also explain the scoring process for the applications that get submitted by potential site hosts.

A. Potential site hosts (customers) will be able to self-nominate their location for consideration through an on-line application available through Tampa Electric's EV page on the company's website. The application will include initial screening questions to acknowledge eligibility as a Tampa Electric customer, willingness to participate for the full term of the pilot program and work with Tampa Electric representatives on the project design, and also acknowledge willingness to contribute towards project costs if applicable to their market segment.

Additionally, the application will require responses to a series of questions specific to the location including:

- Market segment as identified by the customer
- Ownership of the property (owned, leased, etc.)
- Parking availability and accessibility
- Safety-related features, such as lighting or on-site security
- Any existing fees associated with use of parking areas
- Any existing EV charging or prior considerations to installing EV charging
- Amenities available (shopping, food, restrooms, etc.)

Tampa Electric will also request an aerial image of the general parking area along with indication of any parking spaces initially being considered for EV charging. Tampa Electric has not established a scoring or points system for the applications but expects to have a review committee to advance applications through the screening process based in part EV driver accessibility and safety to help ensure high utilization and benefit to those drivers. As each application is advanced through the selection process, on site assessments will be required to ensure viability of the site for the program, primarily with regard to power availability (from existing sources or through providing new utility service) and to properly estimate overall project cost for the site.

19. Please refer to Paragraph 22 of the petition. Will the Company's contribution towards the installation costs be capitalized? If not, explain the nature of the contributions.

A. Yes.

20. Paragraph 22 of the petition states, "Site Hosts may choose to fund installation of additional charging ports subject to certain limitations." Explain what is meant by "certain limitations" in this sentence.

A. Given that the purpose of this pilot is, in general terms, for the purpose of data collection, and that Tampa Electric's investment in each site is helping to initially prepare the site for hosting EV charging, Tampa Electric will want to ensure that any additional charging ports installed provide an equal driver experience, so as not to influence selection of one type of charger over another, within the same site. Increased variability, or otherwise differing experiences from one charge port to another (such as the charger activation process), along with any differences in data collection capabilities, would skew the data collection benefits for the pilot and have a negative impact on the objectives of the pilot. Tampa Electric will work with each site host who may intend to add additional chargers to ensure a positive customer experience while maintaining the integrity of the pilot program.

21. Paragraph 23 states, "Tampa Electric will also contract with a vendor that provides PEV charger billing services." Provide an explanation of who this vendor is and the status of discussions about how billing services will be handled under this pilot program.

A. Tampa Electric has not selected a vendor and will utilize a typical RFP process to evaluate and ultimately select a vendor. Billing services will be included as part of the RFP requirements and evaluated based on information provided by respondents to the future RFP.

22. Please refer to paragraph 24 of the petition. Will TECO verify and monitor the reasonableness of any administrative costs charged by the billing vendor? If yes, please explain how.

A. Yes. Tampa Electric expects to compare and evaluate any administrative costs as part of the future RFP process and based on information provided by respondents to the future RFP.

23. Paragraph 28 states, "Tampa Electric will work with the Site Host to thoroughly evaluate the most cost-effective way to provide service to the PEV charging equipment. In every case, this will be through either an existing meter or through a newly installed meter to ensure the most cost-effective installation and most beneficial tariff rate." Please explain how installing a new meter would be cost-effective and in what scenario installing a new meter would be necessary.

A. An on-site evaluation will be necessary in evaluating each potential site for participation in the pilot program. A key component of each site assessments will be determining the accessibility of existing power supplies (behind existing utility metered service) to proposed EV charging locations within the parking areas. It is expected that, in some instances, existing power supplies could be too far from those parking areas or with extensive obstructions which could significantly increase installation costs. Additionally, based on existing load and demand for existing utility services, consideration must be given to potential upgrades for existing customer electrical equipment and impacts to current tariff rates. In those instances, Tampa Electric would work with the customer to determine if a new utility service might be more cost effective while considering not only initial installation costs but also on-going monthly costs associated with establishing a new billing account.

24. Please refer to Paragraph 31 of the petition. Provide a detailed description of how the Company would record the sale of the charging station to the site host, including any loss on early retirement.

A. Any such sale would be recorded in the standard manner for any such sale of utility property to a third party. The proceeds of the sale ($1 per portal) would be netted against the undepreciated/remaining net book value of the portal being sold. Because the result will be a loss, it would be recorded in Account 421.2 Loss on disposition of property.

25. Please refer to Paragraph 31 of the petition. In the event of program termination, explain why TECO intends to offer the EVSE for only $1 instead of the actual value of the equipment at the time.

A. Tampa Electric believes that providing potential site hosts with certainty and transparency to encourage participation in the pilot program is crucial. Providing for the sale of EVSE for $1 will help to encourage participation while providing certainty on a future potential cost to the site host. Furthermore, as the site host will have the option to no longer host EV charging and therefore have the equipment removed, Tampa Electric believes that selling the EVSE for $1 will not only help to manage the pilot program costs by avoiding removal costs and fees, but also help to ensure that EVSE available to EV drivers during the pilot term will continue to be available.

26. Please refer to Exhibit A, Item 1C. What is the estimated number of PEV charging stations TECO plans to build, as well as the average number of PEV ports per station?

A. Tampa Electric estimates installing approximately 200 ports across the service territory. The expectation is that any site selected would have at least two (2) ports, therefore the total number of sites would be approximately 100. Based on the level of customer interest Tampa Electric receives across each market segment, it may be possible that a site could have more than the currently expected two (2) ports. The total number of ports for the pilot would still remain at an approximately 200, and not incrementally increasing when, or if, a site was to have more than two (2).

The number of ports per station would be determined during the RFP process and based on proposals submitted by respondents to the future RFP.

27. Please refer to Exhibit A, Item 1D. Is the maximum contribution for DCFC also $5,000? If yes, explain why.

A. No. Due to the limited number of DCFC included in the pilot petition, along with the expected variability of equipment and installation costs, Tampa Electric expects to cover the full cost for DCFC locations.

28. Please refer to Exhibit A, Item 1D. What is the estimated actual cost per port for both Level 2 and DCFC EVSE?

A. Tampa Electric will not know what the actual cost per port for Level 2 and DCFC EVSE until the RFP process has been completed. Pilot program costs provided in Exhibit A are estimated.

29. Please refer to Exhibit A, Item 2. What are the system planning benefits that would result from the pilot program?

A. Tampa Electric believes Staff's question is referencing Item 1B-a., which identifies one of the pilot program objectives is to "Support Tampa Electric system planning". Item 2B of the petition lists a variety of data points Tampa Electric expects to collect as part of the pilot program. These data points, along with any additional data made available based on capabilities of the hardware and software to be installed, will help Tampa Electric to better understand impacts from PEV charging on the grid. Tampa Electric expects to evaluate these impacts at various levels, including at the meter and transformer. Modeling actual data collected in a way that reflects increased utilization of charging infrastructure due to widespread PEV adoption, will allow Tampa Electric to understand any potential system planning impacts.

Please refer to Exhibit A, Item 2C for questions 30 through 35.

30. Subsection (f) states, "PEV charging alignment with energy production from renewables." Explain what is meant by this statement and how this data would be collected.

A. Tampa Electric continues modernizing its generation system to include a greater number of renewable energy sources. Equally, Tampa Electric expects the number of PEVs charging from that system to continue increasing. One aspect of the pilot program would be to identify when PEVs are charging as compared to coincidental generation from renewable sources. Tampa Electric expects to collect data from PEV charging and renewable generation systems separately, and manually analyze the data as a separate function.

31. Provide all the data metrics that will be collected (e.g. kW, kWh, account No., time, etc.).

A. At a minimum, Tampa Electric expects to collect the following data points for the duration of the pilot program, however hardware and software data collection capabilities will be fully determined during the future RFP process and based on information provided by respondents to the:

- Location address
- Account Number
- Number of ports at site
- Total hardware and installation cost per port
- Total cost for any required Tampa Electric system improvements
- Total construction timeline per site
- Number of unique charging sessions per port
- kW and kWh delivered per charging session
- Duration of charging session, including time started/stopped
- Idle time for EVs connected beyond a full state of charge

32. Explain if TECO is considering additional objectives not outlined in Item 2C.

A. Tampa Electric is not considering additional objectives not already outlined in Item 2C.

33. Explain if TECO considered pre-existing sources of data either within or outside of its service area.

a. If yes, provide the sources of data TECO considered and why they were not selected.

b. If no, explain why not.

A. a. Yes. Tampa Electric did explore the use of pre-existing source of data, The company, however, believes the greatest benefit to the utility, and ultimately the customer, is to not only have first-hand knowledge of the complete installation process but also have Tampa Electric-specific data to support analysis and planning for the local grid. Tampa Electric believe a utility-specific pilot program is the best way to realize those benefits.

b. N/A.

34. Explain if TECO considered contracting a third party to conduct a study for the objectives outlined in Item 2C. If not, explain why not. As part of your response, provide an estimated cost to conduct such a study.

A. Tampa Electric did not consider contracting a third party to conduct such a study.

35. Could TECO collect the data outlined in Item 2C without owning or operating the EVSE? Please explain your response.

A. Collection of the several items of data would prove difficult in the absence of the pilot. These include: (1) PEV driver charging behaviors; (2) PEV charger utilization by geographic location within the Tampa Electric service area; (3) demand and energy impacts per charging session; (4) charging event duration; (5) peak and off-peak occurrences; and (6) PEV charging alignment with energy production from renewables.

Without Tampa Electric participation in the pilot, including owning and providing the EVSE under lease and providing the contractual billing mechanism, access to these categories of information within the Tampa Electric service area might be impossible as it would require entering into agreements will all potential drivers who might charge in these locations and getting their agreement to provide the charging information to Tampa Electric.

Collecting information regarding potential distribution system upgrades required for PEV charger installations could also prove difficult, but for slightly different reasons. Without Tampa Electric participation in the pilot, including owning and providing the EVSE under lease, Tampa Electric would not be intimately involved in the determination of the least costly distribution system upgrades required to PEV charger installations. While there might be distribution system upgrades provided to a customer, some might be for PEV installation in concert with other load or reliability upgrades requested by the customer at the host site and separating the two may be impossible to identify.

36. Please refer to Exhibit A, Item 2D. What other options were considered to model the impact of PEVs on TECO's system? As part of your response, list any studies that TECO reviewed.

A. Please see response to Data Request Number 35.

Secondly, see response to Data Request Number 33. Similarly, Tampa Electric believes that evaluating any future opportunities for programs that support PEV adoption is best served through collecting, evaluating, and modeling PEV data specific to the company's service area. A Tampa Electric pilot will also allow increased flexibility in how modeling is conducted based on EV market dynamics and evolving needs of the local grid.

37. Please refer to Exhibit A, Item 2E for the following questions.

a. Identify both the state and local initiative that require TECO to prepare for an electrified transportation sector.

b. Explain why it is in the public interest for TECO to identify potential improvements to support local codes, ordinances or permitting processes.

c. Identify the initiative that requires TECO to identify potential gaps in the local distribution of public PEV charging infrastructure.

A. a. At a state-level, Tampa Electric is referring to Senate Bill 7018, which is now codified at Section 339.287 of the Florida Statutes. Through a variety of associated tasks, and generally speaking, SB 7018 seeks to expand the availability of charging infrastructure along state's highway transportation system, encourage the adoption of electric transportation, which would include maintaining reliable operation of the higher number of charging locations. Ensuring electric grid reliability helps to support the work under SB 7018. Locally, Tampa Electric regularly engages with local governments to discuss sustainability and decarbonization initiatives they may be considering. An electrified transportation sector is increasingly becoming part of those discussions. From installation processes, including permitting, to installation costs, to establishing new utility services, Tampa Electric's proposed pilot program could help to inform ways to help support increased efficiencies in those areas, and potentially others, including potential improvements to local codes to support public EV charging installations and help to support increased EV adoption.

b. See response to Data Request Number 37a above.

c. While there is no specific initiative requiring Tampa Electric to identify potential gaps in the local distribution of public PEV charging infrastructure, a lack in the availability of such infrastructure, whether real or perceived, is commonly referenced by industry stakeholders as a barrier to the adoption of electric transportation. Tampa Electric believes that data relative to utilization levels of charging infrastructure deployed through Tampa Electric's pilot, may help to identify potential gaps where additional charging locations could help to support the market.

38. Please refer to Exhibit A, Item 2F. Is it in the public interest for TECO to provide operation and maintenance (O&M) support for the local PEV market? Please explain your response and identify any non-utilities that provide O&M support for EVSE.

A. The language in Item 2F was not intended to mean that operation and maintenance (O&M) of EVSE is a role that Tampa Electric would serve in the local market. Rather, this was intended to mean that developing internal competency related to O&M, and all aspects of EVSE deployment, would help to serve the market by providing Tampa Electric's first-hand experience. This helps to support our existing role as a trusted energy advisor to our customers. Tampa Electric is not expecting to serve an O&M role in the local EV market outside of involvement through the proposed pilot program.

39. Please refer to Exhibit A, Item 2F. Why is it in the public interest for TECO to engage in host site selection for future EVSE?

A. The language in Item 2F is not intended to mean that Tampa Electric has an expectation to engage in future host site selection. Rather, Tampa Electric believes that developing internal competency relative to evaluating sites for potential EVSE deployment will help to serve the market by providing Tampa Electric's first-hand experience to customers who may seek assistance. This helps to support our existing role as a trusted energy advisor to our customers.

40. Please refer to Exhibit A, Item 3B. Will TECO limit the maximum number of EVSE it will install under the program? If yes, what is the maximum number?

A. Yes. Tampa Electric does not intend to install more than 200 charge ports as part of the proposed pilot program.

41. Please refer to Exhibit A, Item 4A and B. Is there a firm minimum number of Level 2 ports that TECO will install at income qualified and government locations? Explain why or why not.

A. No. Tampa Electric anticipates installing a total of 20 ports across 10 sites for each of the two market segments. Tampa Electric has set a minimum requirement of two (2) ports for each income qualified and government location. Tampa Electric believes that this requirement helps to provide increased cost-effectiveness of installation costs on a per-port basis while also providing each site with a minimum level of redundancy should one (1) port become inoperable. Tampa Electric did not establish a minimum number of sites for income qualified and government locations.

42. Please refer to Exhibit A, Item 4D for the following questions.

a. How will TECO determine its' per port contribution?

b. How did TECO determine the maximum number of ports referred to in this section and why?

A. a. Tampa Electric's maximum per port contribution is expected to be $5000. Actual per-port contribution will be determined once a complete site assessment has been completed for each participating site, and later verified through actual final construction costs.

b. For market segments indicated in 4D a, b, and c, Tampa Electric believes that six (6) maximum ports is reasonable to ensure a sufficient spread of ports across all market segments and to cap Tampa Electric's investment for a single location. As Tampa Electric will cover the full cost for installations at income qualified and government locations, a maximum of two (2) ports per site is reasonable for the same reasons.

43. Please refer to Exhibit A, Item 4E for the following questions.

a. Would a site host be able to use the same billing vendor for the ports that were installed at their expense? Explain the billing process that would occur for a site host if they elected to install extra ports at their own expense.

b. How would TECO prevent the site host from installing additional ports without network services?

A. a. Yes, Tampa Electric believes it is reasonable to expect a site host would consider using the same vendor for any ports installed at their expense. While details of the billing services will be determined during the RFP process for selecting a vendor, Tampa Electric anticipates that customers will enter into a billing (network) agreement with the vendor to manage EVSE billing processes.

b. The language in Item 4E referenced is intended to reference additional ports the site host may want to connect in association with ports installed for the pilot. Prior to installing an EVSE, Tampa Electric will require participating customers to enter into a site host agreement that acknowledges their willingness to participate in the pilot program as designed and for the purposes of data collection to serve the pilot program objectives. Non-networked EVSE would not meet the requirements of the pilot. The site host could install additional non-networked ports as part of a separate installation on the property.

44. Please refer to Exhibit A, Item 5. Has TECO discussed with any potential site hosts the proposed pilot program? In your response, provide the number of site hosts talked to and what market sector they fall under and the status of the discussions.

A. Tampa Electric has been contacted by two (2) potential site hosts, both in the government market segment. Those discussion have been limited to discuss the regulatory process required for approval of the pilot program, prior to implementation. There are no ongoing discussions relative to the pilot program.

45. Please refer to Exhibit A, Item 5A. Provide a sample copy of a site host application form.

A. Tampa Electric has not completed a draft of the site host application form. Tampa Electric can make such a draft available when completed.

46. Exhibit A, Item 5C states, "Tampa Electric anticipates proactively communicating participation opportunities to customers through various channels to assure those in the target market segment are aware of the Pilot." Explain how this process will occur to ensure that the designated market sectors are made fully aware of the pilot program TECO is offering. Provide any advertising materials that may be used in this process.

A. Tampa Electric expects to leverage communications channels already in use to communicate with all customer segments, including bill notifications, social media, web site, and direct customer discussions. Specific to potential government and workplace charging locations, Tampa Electric expects to also communicate through customer sustainability coordinators and Tampa Electric account management teams to help increase outreach. For potential income qualified locations, Tampa Electric expects to leverage agencies and/or local businesses that support those communities. Tampa Electric also expects to consult with the to-be-selected vendor who will support the deployment process to understand best-practices in customer outreach for similar charging infrastructure installations.

47. Please refer to Exhibit A, Item 5G. Provide a sample copy of a site host agreement.

A. Tampa Electric has not drafted a site host agreement. Tampa Electric can make such a draft available when completed.

48. Please refer to Exhibit A, Item 6B for the following questions.

a. Explain how the request for proposal (RFP) process works and how TECO decides if a proposal is a viable option for TECO.

b. Provide a sample copy of TECO's agreement with a network service provider.

A. a. Tampa Electric will use an RFP process typical of that used for other contracted service. Tampa Electric will release an RFP stating the overview, requirements, and objectives of the pilot program, as stated within Tampa Electric's petition, and include a copy of the full petition as filed with the Commission. Submittals will be evaluated based on the respondent's ability to meet all pilot program requirements and objectives and may include vendor presentations. This process will help provide a thorough understanding of the vendor's capabilities, processes, and warranties to help support pilot program implementation in a safe, timely, and cost-effective manner.

b. Tampa Electric does not have a sample copy of an agreement with a network service provider and would expect to obtain that only through the RFP process.

49. Please refer to Exhibit A, Item 11B. What is the difference between "Sites with maximum Tampa Electric contribution" and "Sites where Tampa Electric contributes full cost?"

A. Item 11B demonstrates the same total cost as 11A, however different cost categories were used. As referred to in 11B, "Sites with maximum Tampa Electric contribution" refers to a combination of Workplaces, Public/Retail, and Multi-unit Dwellings market segments, while "Sites where Tampa Electric contributes full cost" refers to a combination of Income Qualified, Government, and DCFC. To further explain the difference in how costs are being demonstrated, "Contingency" costs are shown as a separate line item in 11B, while being included as part of each market segment cost in 11A.

50. Please refer to Exhibit A, Item 11C. How will TECO estimate the annual O&M costs?

A. Tampa Electric estimated annual O&M as a function of the overall budget and using 5% of the proposed $2 million estimated budget. Warranties for both vendor hardware and labor are expected to support keeping overall O&M costs at the lowest levels possible.

51. Exhibit A, Item 11C states, "beginning after full deployment of the proposed Pilot (years 2-4) O&M costs are estimated at $100,000 annually." In paragraph 23 of the petition it states, "Tampa Electric will retain full ownership of the charging equipment and will provide full operation and maintenance service for that equipment." Please provide an estimate of any O&M costs for year one of the pilot program.

A. As pilot program activities for year one will focus on deployment of charging ports, Tampa Electric is not anticipating O&M costs in that year.