

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Tampa Electric Company)
for Approval of Electric Vehicle Charging)
Pilot Program)
_____)

DOCKET NO. _____

FILED: September 25, 2020

**PETITION OF TAMPA ELECTRIC COMPANY
FOR APPROVAL OF ELECTRIC VEHICLE CHARGING PILOT PROGRAM**

Tampa Electric Company ("Tampa Electric" or the "company"), pursuant to Sections 120.521 and 366.04, Florida Statutes petitions the Florida Public Service Commission (the "Commission") for approval of an electric vehicle charging pilot program, and as grounds therefore, states:

I. Preliminary Information

1. The Petitioner's name and address are:

Tampa Electric Company
702 North Franklin Street
Tampa, Florida 33602

2. Tampa Electric is an investor owned electric utility subject to the Commission's jurisdiction pursuant to Chapter 366, Florida Statutes. Tampa Electric serves retail customers in Hillsborough and portions of Polk, Pinellas and Pasco Counties in Florida. The company's principal offices are located at 702 N. Franklin Street, Tampa, FL 33602.

3. This Petition represents an original pleading and is not in response to any proposed action by the Commission. Accordingly, the Petitioner is not responding to any proposed agency action.

4. The persons to whom all notices and other documents should be sent in connection with this docket are:

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II. Statement on Disputed Issues of Material Fact

5. In compliance with paragraph (2)(d) of Rule 28-106.201, F.A.C., Tampa Electric states that it is not aware of any disputed issues of material fact at this time, and does not believe any disputed issues of material fact will arise in this docket, but acknowledges the possibility that other parties could assert disputed issues of material fact during this proceeding.

III. Overview of Request

6. Tampa Electric seeks authorization for a plug-in electric vehicle (“PEV”) charger pilot program (“Pilot”). Under this Pilot, Tampa Electric will purchase, install, own, and maintain approximately 200 PEV charging ports within the company’s service territory. The PEV charging ports will be deployed at Tampa Electric customer locations in five different market segments: (1) workplaces; (2) public/retail; (3) multi-unit dwellings; (4) income qualified; and (5) government.

7. Tampa Electric will partner with the owners of the chosen customer locations (“Site Hosts”) to coordinate installation, operation, and maintenance of the charging ports. Tampa Electric will pay up to \$5,000 per charge port towards the cost of installation of the charging equipment for workplace, public/retail and multi-dwelling segments, and the full cost of installation for income qualified and government locations.

8. The objectives of the Pilot are to provide increased customer confidence in the availability of public charging locations, thereby supporting PEV adoption, and to provide Tampa Electric with valuable experience with public PEV charging infrastructure development and PEV charging load profile data.

9. The estimated total cost for the Pilot is \$2 million, and Tampa Electric proposes a Pilot length of four years, after reaching full implementation. Through this petition, Tampa Electric requests authorization to proceed with the Pilot and authorization to recover the costs of the Pilot through base rates.

IV. Statement of Ultimate Facts Alleged and Providing the Basis for Relief

A. Background – The State of the PEV Market in Florida

10. Several national-level forecasts show an accelerating adoption rate for PEVs in the coming years. The Edison Electric Institute (EEI) forecasts that sales of PEVs will exceed 3.5 million vehicles per year in 2030. EEI also projects that the cumulative number of PEVs on the road in the same year will reach nearly 19 million, or about 7 percent of the total number of vehicles on the road at that time. Additionally, EEI forecasts that over 9 million charge ports will be needed to support those PEVs, with over 20 percent of those charge ports being located outside the home (public Level 2, public DC fast charging, and workplace).¹

11. Purchase data shows that PEV adoption is accelerating in Florida. In 2011, Floridians purchased 524 PEVs.² In 2017, Floridians purchased over 7,500 PEVs. In total, Floridians have purchased over 60,000 PEVs to date.³

¹ EEI, “Electric Vehicle Sales Forecast and the Charging Infrastructure Required Through 2030,” available at https://www.edisonfoundation.net/-/media/Files/IEI/publications/IEI_EEI-EV-Forecast-Report_Nov2018.ashx.

² Auto Alliance, “Advanced Technology Vehicle Sales Dashboard 2018,” available at <https://autoalliance.org/energy-environment/advanced-technology-vehicle-sales-dashboard/>

³ Atlas EV Hub, “State EV Registration Data,” available at <https://www.atlasevhub.com/materials/state-ev-registration-data/> (requires login).

12. A significant portion of these PEVs are registered in Tampa Electric's service territory. As of June of 2020, there were nearly 13,000 registered PEVs in the six-county Tampa Bay region. This represents more than 20 percent of the total statewide PEV fleet.⁴

13. Tampa Electric anticipates significant benefits from the increasing number of PEVs in the company's service territory. These include reduction in GHG emissions, balancing the grid through off-peak charging, more efficient use of existing generating capacity, avoiding expensive grid upgrades through potential load control, building grid resilience through vehicle-to-grid (V2G) technologies, and other potential benefits.

14. 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. For example, clustering of PEV chargers in some sections of the grid may overload transformers due to on-peak charging, multiple PEVs engaging in off-peak charging, or from inadequate design of transformers that were initially assumed to be underused at night.

15. The majority of PEVs currently charge at home with either Level-1 outlets (120V) or Level-2 chargers (240V). As longer-range PEVs become more common, however, a higher percentage of them can be expected to need to be charged with higher voltage chargers either at workplaces or at public charging sites. As more PEVs enter the market, especially long-range PEVs with large batteries requiring less frequent, but faster charging, the increase in electric demand may require distribution-level upgrades to the grid.

⁴ *Id.*

B. The Pilot is in the Public Interest

16. Approval of this Pilot will enable Tampa Electric to meet these challenges and maximize the benefits associated with the increasing prevalence of PEVs. Data collected during the Pilot period will provide Tampa Electric with valuable information regarding customer charging behavior, including when and where charging is taking place, and PEV load patterns in a variety of charging locations. This data will directly support long-term grid planning and reliability by allowing Tampa Electric to model the impacts and benefits of increased PEV adoption, including opportunities for managing peak demand through load-shifting.

17. The Pilot will also benefit Tampa Electric customers. Lack of public charging infrastructure, whether perceived or real, is recognized as one of the greatest barriers to PEV adoption. In the near-term, Tampa Electric customers who are considering purchasing or who currently own an PEV will benefit from increased accessibility to public charging infrastructure. In the long-term, all customers are expected to benefit from Tampa Electric's first-hand knowledge of local PEV charging behavior and grid-related impacts. Data collection from the Pilot will help Tampa Electric evaluate PEV-specific programs or measures that support and encourage PEV adoption.

18. This Pilot will also further the goals set out in Senate Bill 7018 ("Bill"), which was recently signed into law by Governor DeSantis. In the Bill, the legislature found that "Ensuring the prompt installation of adequate, reliable charging stations is in the public interest." The Bill directs the Commission to study and evaluate several topics, including "comparing the types of electric vehicle charging stations available," "strategies to develop this supply of charging stations," and "the type of regulatory structure necessary for the delivery of electricity to electric vehicles and charging station infrastructure, including competitive neutral policies and the

participation of public utilities in the marketplace.” Tampa Electric’s proposed Pilot will collect data that the Commission can utilize in making these evaluations.

C. Parameters of the Proposed Pilot

19. Under the proposed Pilot, Tampa Electric will own, operate, and maintain approximately 200 charging ports within the company’s service area. These charging ports will primarily be comprised of Level 2 (208 or 240 volt) chargers, but the company will also install approximately four direct current fast chargers in certain locations.

20. Tampa Electric plans to engage a turn-key vendor for installation of the charging ports, provision of networking, operation, maintenance, and 24/7 customer support. The company anticipates it will take approximately 12 months to complete deployment of the charging ports.

21. The charging ports will be located in five different market segments: (1) workplaces; (2) public/retail; (3) multi-unit dwellings; (4) income qualified; and (5) government. Tampa Electric will select Site Hosts through an application process. Final selection will be based on scoring of the application and on-site evaluations performed by Tampa Electric and by vendor partners.

22. Tampa Electric will contribute up to \$5,000 towards installation costs for each charging port in the workplace, public/retail, and multi-unit dwelling segments. This cap on Tampa Electric’s contribution will incentivize Site Hosts in these market segments to minimize installation costs. Tampa Electric will fund the full cost of installation for income qualified and government Site Hosts. Site Hosts may choose to fund installation of additional charging ports, subject to certain limitations.

23. During the Pilot, Tampa Electric will retain full ownership of the charging equipment and will provide full operation and maintenance service for that equipment. Tampa Electric will also contract with a vendor that provides PEV charger billing services.

24. Tampa Electric will charge the Site Host for electricity consumed by the charging equipment at standard tariff rates. The Site Host may choose to charge PEV drivers for charging or may provide charging at no cost to PEV drivers as an amenity. If the Site Host chooses to charge PEV drivers, the charge will be limited to Tampa Electric's then-current GS tariff rate, plus any telecom or administrative fees assessed by the billing vendor. Limiting the PEV driver costs to these two options will help to limit the variability of data collection during the Pilot. The billing vendor will collect the billing and charging data associated with the charging events and make it available to Tampa Electric for assessment.

25. Exhibit A to this petition is a more detailed description of the elements of the proposed Pilot including: (1) the type and number of charging ports proposed; (2) the market segments that Tampa Electric will target for recruitment of Site Hosts; (3) the rights and responsibilities of the Site Hosts; (4) service and pricing provided to charging customers of the Site Hosts; (5) implementation and electric service components; (6) data collection and reporting regarding the program and charging activity; and (7) options at the end of the Pilot period.

26. Tampa Electric has not completed development of all elements of the Pilot, in particular selection of vendors, equipment, and Site Host outreach. Tampa Electric will proceed with some of this work but will wait for Commission approval to begin work on the remaining elements.

27. Tampa Electric will track installation costs, timing and issues associated with development, operation and maintenance of charging equipment, charging volumes at each

charging site as well as demand timing and impacts. Tampa Electric will also evaluate the partnership between the company and the Site Hosts, including how the Site Host encourages use of the charging equipment and how Site Hosts identify and respond to problems that arise with PEV charging.

D. Regulatory treatment of proposed Pilot assets and costs

28. Under this Pilot, Tampa Electric is not requesting any new rate tariffs. Power will be sold to Site Hosts at tariff rates under either their existing electric service or via a separate service meter. Options for how Site Hosts may charge PEV drivers for use of the charging equipment are addressed in Section C, paragraph 24. 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.

29. Through this Petition, Tampa Electric seeks authorization for base rate recovery of the charging port investments as well as Pilot administration, operations, and maintenance expenses.

E. Pilot reporting

30. Tampa Electric will produce a final report on the key findings of the Pilot and provide the report to the Commission no later than year 3 of the Pilot. This final report will address the results of the Pilot, whether the Pilot resulted in the expected benefits, and an assessment of whether a more permanent PEV charging program merits a tariff revision request. Tampa Electric would also be willing to provide annual interim reports regarding Pilot progress if desired by the Commission.

31. Once Tampa Electric has submitted the final report, the Commission may determine that the Pilot should terminate. In this scenario, Tampa Electric will provide Site Hosts the opportunity to acquire all charging equipment at their respective sites for \$1 and the Site Hosts will assume responsibility for all ongoing costs. Alternatively, the Commission may decide that Tampa Electric should continue the Pilot, in which case the company will file a new petition with the Commission to seek approval for a tariff revision to permanently implement the program.

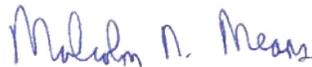
V. Relief Requested

32. Tampa Electric requests authority to implement the Electric Vehicle Charging Pilot Program, as described herein and in Exhibit A, for a period of four years.

WHEREFORE, Tampa Electric requests that the Commission approve the company's proposed Pilot.

DATED this 25th day of September 2020.

Respectfully submitted,



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ATTORNEYS FOR TAMPA ELECTRIC COMPANY

EXHIBIT A

PLUG-IN ELECTRIC VEHICLE CHARGING
PILOT PROGRAM

EXHIBIT A

PLUG-IN ELECTRIC VEHICLE CHARGING PILOT PROGRAM (“PILOT”)

1. Overview

- A. Tampa Electric Company (“Tampa Electric” or the “company”) will purchase, install, own, and maintain a limited number of Plug-in Electric Vehicle (“PEV”) Charging Ports (“Ports”) within the Tampa Electric service area to provide increased consumer confidence for PEV adoption while providing the company with valuable experience with public PEV charging infrastructure development and PEV charging load profile data to support grid planning and reliability.
- B. The objectives of the Pilot are:
 - a. Support Tampa Electric system planning
 - b. Ensure grid reliability
 - c. Develop Tampa Electric competencies to serve the PEV market
 - d. Meet customer needs in identified key markets
 - e. Inform/develop Tampa Electric’s long-term strategy
- C. Approximately 200 Ports will be deployed at Tampa Electric customer locations. Market segments evaluated for installation will be:
 - a. Workplaces
 - b. Public/Retail
 - c. Multi-unit Dwellings
 - d. Income Qualified
 - e. Government
- D. To encourage active customer participation for the success of the Pilot, Tampa Electric is proposing a Pilot structure where the company’s maximum investment per-Port is \$5,000 for workplace, public/retail and multi-unit dwelling market segments. For income qualified and government market segments, Tampa Electric is proposing to cover the full installation and charging Port costs and will seek the most cost-effective host sites that best meet the Pilot objectives.
- E. Tampa Electric’s total cost for this proposed Pilot is estimated at \$2 million.

- F. The duration of the proposed Pilot will be four (4) years, the period commencing with the completion of all Ports associated with the Pilot.

2. Purpose of the Plug-in Electric Vehicle Charging Pilot Program

- A. Support customer transition to a decarbonized transportation sector.
- B. Increase PEV driver confidence by reducing range anxiety through increased access to PEV charging infrastructure in public settings.
- C. Provide Tampa Electric with a better understanding of PEV interaction with the local grid through the collection of Port and utility electric meter data including:
 - a. PEV driver charging behaviors – How, when and where charging is taking place
 - b. PEV charger utilization by geographic location within the Tampa Electric service area
 - c. Demand and energy impacts per charging session
 - d. Charging event duration
 - e. Peak and Off-Peak occurrences
 - f. PEV charging alignment with energy production from renewables
 - g. Potential distribution system upgrades required for PEV charger installations
- D. Through data collection and Tampa Electric’s system modeling, evaluate potential future opportunities for Tampa Electric programs that support PEV adoption.
- E. Support state and local initiatives to prepare for an electrified transportation sector by:
 - a. Identifying potential improvements to support local codes, ordinances or permitting processes
 - b. Identifying potential gaps in the local distribution of public PEV charging infrastructure
- F. Develop Tampa Electric’s internal competencies to provide long-term support for the local PEV market including processes for host site selection, permitting and construction, as well as operation and maintenance of charging infrastructure.

3. PEV Charging Technology

- A. Tampa Electric will primarily install Level 2 (208 or 240 volt) Electric Vehicle Supply Equipment (“EVSE”), however the company will also install a limited number of

- b. Public/Retail 35 percent (est. 70 Ports)
 - c. Multi-unit Dwellings 10 percent (est. 20 Ports)
 - d. Income Qualified 10 percent (est. 20 Ports)
 - e. Government 10 percent (est. 20 Ports)
- D. Tampa Electric’s contribution per Port at each host site will require a minimum and maximum number of Ports to be installed. The distribution of Ports per host site within each market segment is expected to be as follows:
- a. Workplaces 2 required, 6 Ports max.
 - b. Public/Retail 2 required, 6 Ports max.
 - c. Multi-unit Dwellings 2 required, 6 Ports max.
 - d. Income Qualified Limited to 2 required Ports
 - e. Government Limited to 2 required Ports
- E. A site host may choose to install additional Ports beyond the maximum numbers for Tampa Electric contribution indicated in Item 4D. In any case where a site host chooses to install additional Ports, the site host will be responsible for all costs associated with those additional Ports, including hardware, network services, installation, and ongoing maintenance. In consideration of Tampa Electric’s contribution which helps to prepare the entire site for PEV charging, Tampa Electric will require access to data from the additional Ports to preserve the integrity of all PEV charging data for the entire site.
- F. The four (4) DCFC locations will be carefully evaluated to help ensure:
- a. 24/7/365 accessibility to PEV drivers
 - b. Proximity to local travel corridors frequently used by PEV drivers
 - c. The opportunity to serve multiple market segments from a single multi-functional location
- G. Site hosts will be selected in a way that helps to:
- a. Provide equitable distribution throughout the Tampa Electric’s service area
 - b. Ensure PEV driver accessibility
 - c. Fill potential charging infrastructure gaps realized during implementation
 - d. Achieve fairness using selection criteria as discussed in Item 5, below

- H. Tampa Electric will work with the selected vendor, leveraging their prior experience and expertise, to maximize an equitable deployment across the targeted market segments.

5. Site Host Participation

- A. Potential site hosts will have the opportunity to participate in the Pilot through a self-nomination process requiring submittal of an application.
- B. To help ensure an adequate pool of potential site hosts is being evaluated for participation, a self-nomination period will be established and communicated to Tampa Electric customers within each market segment.
- C. Tampa Electric anticipates proactively communicating participation opportunities to customers through various channels to assure those in the targeted market segment are aware of the Pilot. Additionally, to help ensure outreach to specific market segments, Tampa Electric will seek to engage with industry associations, as well as civic and environmental groups, to help create customer awareness. Internal teams will also be leveraged including those involved in account management activities and government / community relations.
- D. Tampa Electric will review and score each application by market segment to determine if participation requirements and Pilot objectives can be achieved at the proposed site.
- E. Final determination for site host participation will require on-site evaluations by Tampa Electric and vendor partners supporting installation processes. Host Site evaluations will include identifying any installation or participation concerns including site safety, power availability, PEV driver access, and actual costs for installation or site development.
- F. In every case, Tampa Electric will make the final determination on-site host selection.
- G. A site host agreement will be required for all installations, including proper indemnifications.
- H. To limit the variability of data collection during the Pilot period, and to help create a consistent experience across all Pilot participants, site hosts will have the option of providing PEV drivers with one of the following price structures for their charging:
 - a. No-cost access to the EVSE;

- b. A per kWh fee equal to Tampa Electric’s General Service (GS) rate (including all associated fees and charges) in effect at the time. In this scenario, site hosts may also pass along to PEV drivers any network or transaction fees incurred, including any applicable taxes.

6. PEV Charging Participation

- A. Prior to beginning a charging session, EVSE users will have clear visibility into the pricing structure established at each location by the respective site host. Tampa Electric expects to leverage on-site signage, site host communication and PEV charging web sites, such as PlugShare, to help provide EVSE users with pricing visibility.
- B. Tampa Electric will enter an agreement with a network service provider (“NSP”), chosen by Tampa Electric through a future request for proposal (“RFP”) process, to manage the PEV charging transaction and PEV charging network data.
 - a. Site Hosts will also be required to enter into a similar agreement with the NSP. This is typically achieved with a standard contract.
 - b. To use PEV chargers, users must also enter into a user agreement with the NSP. This is typically achieved through a mobile app or website provided by the NSP.
 - c. Tampa Electric’s access to charging data will be granted through the Site Host Agreement which will in-turn reference to those Downstream Agreements.

7. Implementation

- A. Tampa Electric will seek to engage in turn-key vendor services for efficiencies in the Pilot deployment and to include procuring hardware and network solutions, providing installation services, operation, maintenance, and ongoing 24/7 customer support. Continuity of services throughout the Pilot period and a superior customer experience are of the highest priority.
- B. Tampa Electric team members will provide ongoing project management and oversight for all aspects of Pilot activities, including all direct site host interactions.
- C. Full deployment of the Pilot, including installation of the Ports, is anticipated to require approximately a 12-month period which will be dependent on outside factors including local permitting requirements and site host approvals.

8. Utility Electric Services

- A. Regardless of market segment identified or type of EVSE installed (Level 2 or DCFC), site hosts will be required to take electric service for EVSEs under this Pilot through an existing Tampa Electric meter (where adequate capacity is available on the site host's service panel) or through a newly installed Tampa Electric meter, should this be the most cost-effective way to provide utility service to the EVSE.
- B. In either case above, existing applicable tariff rates and charges will be utilized to provide electric service to the host site.

9. Data Collection and Reporting

- A. For the duration of the Pilot, Tampa Electric will collect comprehensive data for each market segment, including but not limited to number of charging sessions, costs to PEV drivers, utilization of each technology type, installation costs, and load profiles.
- B. After reaching full implementation and on an annual basis until the completion of the Pilot period, Tampa Electric will report to the Commission on the data points collected and including narratives related to lessons learned during the deployment phase, ongoing operation and maintenance, and include site host or PEV driver feedback.

10. Pilot End of Term

- A. Tampa Electric recognizes that the PEV market continues to evolve based on variety of factors including PEV model availability and technology advancements for battery systems and charging infrastructure.
- B. Tampa Electric also recognizes that state and local policymakers are continually evaluating actions that could encourage PEV adoption, and that some of those actions could require, or at least benefit from, utility participation in the PEV charging market.
- C. During the four (4) year Pilot period, but no later than in year three (3), Tampa Electric will provide to the Commission a final report of all data collected and documenting the appropriateness to either extend the Pilot, change its parameters, make charging a permanent tariff service or conclude and terminate.
- D. In the event Tampa Electric demonstrates, and the Commission approves, that Tampa Electric should conclude the Pilot with no further Tampa Electric involvement, site

hosts will have the opportunity to acquire all charging infrastructure (meaning the chargers themselves) at their respective sites for the sum of \$1. All ongoing costs associated with the PEV Ports, including maintenance and network charges will become the responsibility of the site host. All other distribution investment made to serve the chargers will remain Tampa Electric property.

- E. Should Tampa Electric determine, and learnings from the Pilot support, that it is appropriate to continue the Pilot in any capacity, Tampa Electric will file a new petition with the Commission to seek such approval. During such a process, Tampa Electric will continue working with Site Hosts already participating in the Pilot to ensure continuity of PEV charging services to drivers.

11. Estimated Pilot Cost

- A. The total cost of the proposed Pilot is estimated at \$2 million and reflected in the following estimations by market segment:
 - a. Workplaces \$500,000
 - b. Public/Retail \$500,000
 - c. Multi-unit Dwellings \$150,000
 - d. Income Qualified \$275,000
 - e. Government \$275,000
 - f. DCFC \$300,000
- B. The total cost of the proposed Pilot is also demonstrated as follows:
 - a. Sites with maximum Tampa Electric contribution \$800,000
 - b. Sites where Tampa Electric contributes full cost \$600,000
 - c. Tampa Electric Program Management \$250,000
 - d. Contingency \$350,000
- C. Additionally, and beginning after full deployment of the proposed Pilot (years 2-4), O&M costs are estimated at \$100,000 annually.
- D. Final costs will be determined through a combination of the future vendor RFP process and required host site evaluations to properly scope installation requirements.