State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: March 19, 2021

TO: Office of Commission Clerk (Teitzman)

FROM: Division of Engineering (Doehling) TB
Division of Accounting and Finance (Mouring) ALM
Office of the General Counsel (Stiller, Osborn) JSC

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

AGENDA: 04/01/21 – Regular Agenda – Proposed Agency Action - Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Administrative

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

Case Background

On September 25, 2020, Tampa Electric Company (TECO or Utility) filed a petition requesting approval of an electric vehicle (EV) charging pilot program (Pilot). Under this Pilot, TECO will purchase, install, own, and maintain approximately 200 EV charging ports (Ports) within its service territory at commercial/industrial customer locations (Site Hosts).

In support of its petition, TECO claims the Pilot will increase customer confidence in the availability of public charging locations, thereby supporting EV adoption. It will also provide the Utility with valuable experience with public EV charging infrastructure development and EV charging load profile data. In addition, TECO stated the objectives of the Pilot are to support utility system planning, ensure grid reliability, develop TECO's competencies to serve the EV

market, meet customer needs in identified key markets, and inform/develop TECO's long term strategy.

The Commission has approved EV pilot programs for four electric utilities over the past twenty-five years.[1] Each of these programs was independently crafted by the applicant utility with its own unique features. Also, Section 339.287, Florida Statutes (F.S.), enacted in last year's legislative session, recognizes the emerging importance of EV Ports and the important role of utilities in this effort.[2]

The Commission has jurisdiction over this matter pursuant to Sections 366.03, 366.04, 366.05, and 366.06, F.S.

[1]Order No. PSC-95-0853-FOF-EG, issued July 17, 1995, in Docket No. 950517-EG, *In re: Petition for Approval of New Experimental Electric Vehicle Tariff by Tampa Electric Company*; Order No. PSC-17-0178-S-EI, issued May 16, 2017, in Docket No. 160170-EI, *In re: Petition for approval of 2016 depreciation and dismantlement studies, approval of proposed depreciation rates and annual dismantlement accruals and Plant Smith Units 1 and 2 regulatory asset amortization, by Gulf Power Company*; Order No. PSC-2017-0451-AS-EU, issued November 20, 2019, in Docket No. 20170183-EI, *In re: Application for limited proceeding to approve 2017 second revised and restated settlement agreement, including certain rate adjustments, by Duke Energy Florida, LLC*; *and* Order No. PSC-2020-0512-TRF-EI, issued December 21, 2020, in Docket No. 20200170-EI, *In re: Petition for approval of optional electric vehicle public charging pilot tariffs, by Florida Power & Light Company.*

[2]Section 339.287, F.S., requires the Florida Department of Transportation to coordinate, develop, and recommend a Master Plan for the development of electric vehicle charging station infrastructure along the State Highway System in consultation with the Florida Department of Environmental Protection, the Florida Public Service Commission, and other state agencies.

Discussion of Issues

Issue 1: Should the Commission approve TECO's proposed EV charging pilot program?

Recommendation: Yes. The Commission should approve TECO's proposed EV Pilot effective the date of the Commission's vote. Capital expenditures should be capped at $2 million for the life of the program, and operation and maintenance (O&M) costs be limited to $100,000 annually for years two through four of the Pilot. TECO should file annual reports, with the first report due 12 months from the date the final order is issued approving the Pilot. The annual reports should provide comprehensive data for each market segment, including but not limited to the number of charging sessions, time of use, charger utilization by geographic location, costs to EV drivers, installation costs, load profiles, ongoing O&M expense, and Site Host or driver feedback. Staff recommends that the Pilot commence the date of the commission's vote and terminate four years from the date the final order is issued approving the Pilot, unless TECO files a petition to extend, modify, or permanently implement the Pilot through a tariff revision. (Doehling, Mouring)

Staff Analysis: Within TECO's service territory, there are currently 340 non-utility owned Ports. Of these 340 Ports, 63 of them are Direct Current Fast Charging (DCFC) Ports. Non-utility owned Ports take service from TECO at the applicable retail rate. In addition to the non-utility owned Ports, TECO currently owns and operates 45 Ports, one of which is a DCFC Port. These TECO-owned Ports are not for public use and are unrelated to the proposed Pilot.

Overview of Proposed Pilot

Under the proposed Pilot, TECO will purchase, install, own, and maintain approximately 200 EV Ports within its service territory. Four of the Ports will be DCFC and the rest of the Ports will be Level 2.[3] A limited number of Level 2 Ports will also be installed at each DCFC location to provide redundancy.[4]

As displayed in Table 1-1, two hundred Level 2 Ports will be deployed at customer locations across five different market segments: (1) workplaces, (2) public/retail, (3) multi-unit dwellings, (4) income qualified,[5] and (5) government. TECO will partner with the Site Hosts to coordinate installation, operation, and maintenance of the Ports. TECO asserted the four DCFC Port locations will be carefully selected to help ensure 24/7 accessibility, proximity to local travel corridors frequently used by EV drivers, and the opportunity to serve multiple market segments.

[3]Level 2 Ports operate at 208 or 240 volts (V) alternating current (AC), and DCFC Ports typically require a 208/480 V AC three phase connection.
[4]TECO intends to install two Level 2 Ports at each of the four DCFC locations.
[5]Income qualified communities are defined per Section 288.9913(3), F.S.

Table 1-1
Level 2 Ports by Market Segment

Market Segment	Ports
Workplace	70
Public/Retail	70
Multi-unit Dwelling	20
Income Qualified	20
Government	20

In its petition, TECO stated it will bill the Site Host for electricity consumed by the Ports at the appropriate tariff rate. Site Hosts will then have the option of two different price structures for billing EV drivers. The first option is providing no-cost access to the Ports. The second option is a per kilowatt-hour (kWh) fee equal to TECO's General Service rate. For the second option, Site Hosts may include any network or transaction fees, as well as any applicable taxes. Staff recommends that TECO require Site Hosts to clearly identify all fees that will be incurred by EV drivers using the Ports.

The proposed length of the Pilot is four years, commencing after all Ports are installed. TECO stated it aspires to have all Ports deployed by December 31, 2021. During the third year of the Pilot, TECO committed that it will provide the Commission a final report of all data collected and document the appropriateness to either extend the Pilot, make charging a permanent tariff, or terminate the Pilot. However, staff recommends that the Pilot commence the date of the commission's vote and terminate four years from the date the final order is issued approving the Pilot, unless TECO files a petition to extend, modify, or permanently implement the Pilot through a tariff revision.

In the event the Pilot is terminated, Site Hosts will have the opportunity to acquire all the Ports at their site for $1. All ongoing costs for the Ports will then become the responsibility of the Site Host. However, if the Site Host does not wish to acquire the Ports or for any other reason no longer wishes to continue participating in the Pilot, TECO asserted it would work with the Site Host, adjacent businesses, property managers, or any other party in an effort to keep the Ports installed. If the Ports still required removal, TECO stated it would work with the Site Host to return the site to its original condition, at no cost to the Site Host.[6]

Pilot Objectives

TECO lists five goals of the Pilot: (1) support utility system planning, (2) ensure grid reliability, (3) develop TECO's competencies to serve the EV market, (4) meet customer needs in identified key markets, and (5) inform/develop TECO's long-term strategy. TECO also stated the Pilot supports state and local initiatives to prepare for an electrified transportation sector, and will provide TECO with a better understanding of EV interaction with the local grid through the collection of Port and utility electric meter data.

TECO asserts that the Pilot will achieve their proposed goal of supporting utility system planning by collecting a variety of data points. The Utility claims these data points, along with any additional data made available based on capabilities of the hardware and software to be installed,

[6]Document No. 02497-2021, filed March 1, 2021, p. 1.

will help it better understand impacts from EV charging on the grid. TECO expects to evaluate these impacts at various levels, including at the meter and transformer. TECO stated that modeling actual data collected in a way that reflects increased utilization of charging infrastructure due to widespread EV adoption, will allow the Utility to understand any potential system planning impacts.

TECO expects that EVs will continue to increase in market share for the foreseeable future. For this reason, TECO asserts that it is crucial to understand what impacts at scale EVs will have on the local grid. The compilation of the data expected to be collected through the Pilot will help TECO in grid reliability planning and developing its long-term strategy.

TECO asserts the Pilot will develop its competencies to serve the EV market in three ways. First, TECO's competencies will be developed through its direct involvement in the design, permitting, construction, and maintenance of the Port. Second, the deployment costs, Port data collection, and maintenance logs will provide information on unknown gaps where additional focus is warranted. Last, a first-hand understanding of how EV drivers interact with the local grid will assist with planning for maintaining grid reliability.

The Utility also expects the Pilot will serve to meet customer needs in identified key markets. TECO anticipates that each market segment identified within the Pilot will have unique challenges and opportunities in how the EV market is served. The Utility believes that by deploying Ports within each of the identified market segments, customers will be exposed to opportunities for installing additional charging stations through visibility of the Ports installed, word of mouth, or direct interaction with TECO representatives regarding the Pilot.

As an alternative to the proposed Pilot, TECO considered the use of pre-existing sources of data.[7] However, TECO 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 Utility specific data to support analysis and planning for the local grid. Consequently, the Utility also stated it did not consider contracting a third party to conduct a study for the purpose of achieving the Pilot's stated objectives.[8]

Pilot Costs

The Utility will pay up to $5,000 per Level 2 Port towards the cost of installation for workplaces, public/retail, and multi-unit dwellings, and the full cost of installation for income qualified sites and government locations. While TECO is only partially covering the installation cost for workplaces, public/retail, and multi-unit dwellings, TECO will still retain ownership of the Ports. Due to the limited number of DCFC Ports, along with the expected variability of DCFC installation costs, TECO expects to cover the full cost for DCFC locations.

The estimated capital cost for the Pilot is $2 million. The total capital costs broken out by market segment can be seen in Table 1-2, including program management and contingency costs. This equates to an estimated total cost per port of $7,143 for workplace and public/retail sites, $7,500

[7]Document No. 13630-2020, filed December 18, 2020, p. 36.
[8]Document No. 13630-2020, filed December 18, 2020, p. 37.

for multi-unit dwelling sites, $13,750 for each income qualified site and government location, and $75,000 for each DCFC site.

For the sites where TECO is contributing a maximum of $5,000, the estimated Utility contribution to installation costs are 70 percent of the total costs. The remaining 30 percent of the total cost was budgeted for program management and contingency costs. However, TECO was unable to provide the estimated Utility contribution to installation costs for the income qualified, government, or DCFC sites.[9] Assuming TECO budgeted 70 percent of the total cost for installation for these sites as well, this equates to an estimated Utility installation cost per port of $9,625 for both income qualified and government sites, and $52,500 for each DCFC site. Since TECO is unable to provide a more accurate estimate of Utility contribution for installation costs at this time, staff recommends that capital expenditures be capped at $2 million for the life of the program.

Table 1-2
Estimated Pilot Costs

Market Segment	Ports	Total Cost	Total Pilot Cost/Port	Estimated Utility Installation Cost	Estimated Utility Installation Cost/Port
Workplace	70	$500,000	$7,143	$350,000	$5,000
Public/Retail	70	$500,000	$7,143	$350,000	$5,000
Multi-unit Dwelling	20	$150,000	$7,500	$100,000	$5,000
Income Qualified	20	$275,000	$13,750	$192,500*	$9,625
Government	20	$275,000	$13,750	$192,500*	$9,625
DCFC**	4	$300,000	$75,000	$210,000*	$52,500

* Installation costs are assumed to be 70 percent of the total costs.
** The cost per port for DCFC sites includes the supplemental Level 2 Ports.

After year one of the Pilot, O&M costs are estimated at $100,000 annually. TECO estimated O&M costs as 5 percent of the total capital cost. Final costs will be determined through a combination of future vendor request for proposals and required host site evaluations to determine installation requirements. For this reason, staff recommends that O&M costs be limited to $100,000 annually for years two through four of the Pilot.

Accounting Treatment

TECO has requested that the capital investment, along with administration and operation and maintenance costs associated with the Pilot, be recorded above-the-line, and be approved for recovery through base rates. As stated above, if the Commission terminates the Pilot, Site Hosts will be given the option to purchase the Ports installed at their sites for a nominal fee of $1. Under this scenario, the losses generated by selling the Ports below the unrecovered net book value would also be recorded above-the-line in Account 421.2 Loss on Disposition of Property. Under this scenario, any resulting net losses would be recovered through base rates from the general body of customers. TECO has stated that it believes this buyout option provides certainty and transparency of future potential costs to prospective Site Hosts which it believes is crucial to encourage participation in the EV Pilot. The Utility has also noted that the proposed buyout

[9]Document No. 13630-2020, filed December 18, 2020, p. 31.

option would help to avoid potential removal costs and ensure that the Ports remain available to drivers in furtherance of Section 339.287, F.S. TECO has estimated total program costs, absent any offsetting incremental revenue attributable to the Pilot or consideration of the recovery of any potential losses from the sale of the Ports at the end of the program, would equate to approximately $0.03 per 1,000 kWh residential bill.

Reporting Requirements

TECO stated it will provide annual reports until the completion of the Pilot. Staff recommends that during the Pilot period, TECO should file annual reports, with the first report due 12 months from the date the final order is issued approving the Pilot. The annual reports should provide comprehensive data for each market segment, including but not limited to the number of charging sessions, time of use, charger utilization by geographic location, costs to EV drivers, installation costs, load profiles, ongoing O&M expense, and Site Host or driver feedback.

Conclusion

Based on the above, staff recommends that the Commission approve TECO's proposed EV Pilot effective the date of the Commission vote. Capital expenditures should be capped at $2 million for the life of the program, and O&M costs be limited to $100,000 annually for years two through four of the Pilot. TECO should file annual reports, with the first report due 12 months from the date the final order is issued approving the Pilot. The annual reports should provide comprehensive data for each market segment, including but not limited to the number of charging sessions, time of use, charger utilization by geographic location, costs to EV drivers, installation costs, load profiles, ongoing O&M expense, and Site Host or driver feedback. Staff recommends that the Pilot terminate four years from the date the final order is issued approving the Pilot, unless TECO files a petition to extend, modify, or permanently implement the Pilot through a tariff revision.

Issue 2: Should this docket be closed?

Recommendation: Yes. If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order. (Stiller)

Staff Analysis: At the conclusion of the protest period, if no protest is filed this docket should be closed upon the issuance of a consummating order.