March 27, 2020

VIA: ELECTRONIC MAIL

Mr. Charles Morgan II
Public Utility Analyst I
Division of Economics
Florida Public Service Commission
Room 225L – Gerald L. Gunter Building
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Staff's First Data Request on Tampa Electric Company's 2019 DSM Annual Report

Dear Mr. Morgan:

Attached are Tampa Electric Company's responses to Staff's First Data Request dated March 17, 2020 regarding Tampa Electric Company's 2019 DSM Annual Report.

Thank you for your assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/bmp
Attachment

cc: Tripp Coston, Economic Supervisor, FPSC (w/attachment)
Paula K. Brown (w/o attachment)
Billy Stiles (w/attachment)

1. Please describe the Company's process for monitoring any new federal energy efficiency standards and Florida Building Code requirements, including how the Company modifies existing programs to reflect these changes, if necessary (23rd Semi-Annual Report to Congress on Appliance Energy Efficiency Rulemakings issued in 2019).

A. Tampa Electric recognizes that staying on top of building codes and appliance efficiency standards is a challenge. To ensure that the DSM programs the company offers are aligned with building codes and appliance efficiency standards, Tampa Electric's Energy Management Services ("EMS") Department stay abreast and ahead of changing appliance efficiency standards and buildings codes including the current sixth version of the Florida Building Code released June 2017, effective December 2017 and the upcoming seventh edition becoming effective tentatively, at this time, for December 31, 2020, and including the 23rd Semi-Annual Report to Congress on Appliance Energy Efficiency Rulemakings issued in July 2019. The Program Managers and select EMS team members ensure the DSM programs the company offers are correctly positioned to enhance energy efficiency above the base/minimum level required. Here are specific examples of the company's approach for monitoring any new federal energy efficiency standards/codes or Florida Building Code requirements and identifying the resultant future impact to the existing DSM Program:

- Tampa Electric's DSM Program Managers subscribe to the annual Florida Building Code - Energy Conservation Edition. The company has individual team members within EMS that serve as a designated team member who is associated with the Florida Department of Business Professional Regulations.
- Tampa Electric's Commercial Energy Management Team ("CEMT") members receive updates from the State of Florida's Energy Technical Advisory Committee ("TAC") and actively participate in webinars offered by the TAC.
- The CEMT belongs to several energy efficiency associations and consortiums such as the Association of Energy Engineers or the Consortium for Energy Efficiency.
- The CEMT will also attend national level training events which provide insight into current and future industry changes along with legislative changes that are scheduled to occur.
- Program Managers are responsible for charting a timeline comparison with the current program standards and identifying the needed changes to ensure the program is in alignment with the new energy efficiency standard or building code.

- Program Managers meet annually with the company's Manager of Regulatory Rates to walk-through each DSM program to ensure the DSM program's standards are aligned with any new or upcoming changes to federal or state building codes or appliance energy efficiency requirements.
- Program Managers will reach out to recognized experts or vendors to discuss the impacts of changes and determine the most appropriate adjustments to make to the DSM program. A recent example of this is Tampa Electric's collaboration with the Environmental Protection Agency for the new ENERGY STAR Variable Speed Pool Pump program. This collaboration with industry experts helped directly guide the company's decision based on their input as to when and how they would recommend proceeding with new industry standards involving residential pool pump replacements. While manufacturing of single speed pools pumps will cease in July of 2021, it will take a number of years to cycle through all of the inventory of single speed pumps which will still be allowed to be installed until inventory runs out or when the new requirements expected in late 2024 will cause this program to be discontinued in the company's next DSM Plan.
- Program Managers that facilitate programs which have designated vendors ensure the vendor is aware of potential and future advancements in appliance energy efficiency standards and building codes and to position the supporting technology so that it is compatible, and it enhances the overall program.
- Program Managers and individual team members also achieve professional certifications by attending classes, participating in trade shows, formal meetings, conferences or other training events which cover appliance energy efficiency standards and building codes such as:
    - Certified Energy Manager (CEM)
    - Business Energy Professional (BEP)
    - Commercial Energy Auditor (CEA)
    - Residential Energy Auditor (REA)
    - Demand Side Management Professional (CDSM)
    - Florida Building Engineering & Facility Maintenance Show
    - RESNET Certified Energy Rater seminars
    - Energy Management Congress events
    - EPA – ENERGY STAR training
    - ENERGY STAR Certified Homes Stakeholder meeting
    - Association of Energy Service Professionals (AESP)

- Association chapter meetings: Association of Energy Engineers (AEE), Tampa Bay Builders Association (TBBA), Refrigeration & Air Conditioning Contractors Association
- (RACCA) and American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)

2. Please provide a detailed description of the Company's research and development initiatives, including the status of each project and any final reports related to the work completed under this DSM program.

A. Tampa Electric has the following active Research and Development ("R&D") projects occurring:

Small to mid-size Commercial Battery Storage: At this time the R&D project is still in a waiting status until the costs of batteries is reduced to a level at which will allow the funding of an installation(s) of batteries. The company completed the first phase of this R&D effort and provided the report to the Commission on that phase of the project in the 2017 DSM Program Accomplishments that was filed on March 1, 2018.

Commercial small to mid-sized business Online Energy Audit: At this time the R&D project is on hold due to the development of other non-conservation enhancements to the company's customer portal. The R&D project was also placed on hold so the company could gather more appropriate metrics regarding the actual benefits, projected participation and capabilities of the energy audit software to provide a high quality energy audit to a very diverse range of customer business types. No reports have been provided by this R&D project at this time.

Large Commercial Electric Vehicle Battery Storage: Tampa Electric is exploring the operational capabilities and characteristics of large commercial electric vehicle lithium-ion batteries to export power to the company's electrical grid during peak times. The R&D project involves installing truck batteries (either a three (3) kW or 10 kW sized battery) within three of the company's line trucks to evaluate the potential energy consumed by the charging stations and the amount of demand that can be exported to the grid. In addition, the ability to control the level of discharge to a specified point will also be evaluated to understand the operational impacts of performing these exports during the summer and winter peak season hours. Other items the project will analyze include the following:

- Economics and cost-effectiveness
- Customer site integration
- Integration of multiple trucks

Tampa Electric is proposing that this R&D project will be part of the Integrated Renewable Energy System (Pilot) Program proposed in the company's 2020-2029 DSM Plan.

Home Energy Management System: This R&D project was implemented in November 2019, for home energy monitoring. The company installed home energy monitoring equipment in employee participant homes including a device that measures the split phase voltage, total current, and current of certain dedicated circuits within the home to record energy and usage data. The energy data gathered is communicated through the vendor's software to provide users with a portal that's accessible via an app on a smart device. Employees can view appliance on/off activity, kilowatt hour consumption, graphs and estimated electricity costs. The duration for this R&D project is two years. At the conclusion of the project, the company's Load Research and Forecasting Department will analyze the participating employee electric consumption to determine any summer and winter demand and annual energy savings. The company will also survey these participating employees to determine feasibility and/or recommendations for any future DSM programs. The company will provide the results of the analysis and employee surveys when the R&D project is complete.

Heat Pump Water Heater inclusion into the Energy Planner Program: Tampa Electric is desiring to evaluate the inclusion of residential heat pump water heaters/hybrid water heaters into the Energy Planner Program as an electric thermal storage device. At this time, due to the company's installation of the advanced metering infrastructure ("AMI") project, the company is still waiting to start this evaluation so as to be able to take full advantage of the benefits when AMI becomes fully realized for Tampa Electric.

3. Please describe any changes the Company has made to its process for ensuring low-income customers are aware of, and have access to, conservation programs.

A. Tampa Electric, in 2019, did not make any changes to the existing communication processes to ensure low-income customers are aware of, and have access to, conservation programs. In the last quarter of 2019, the company initiated internal discussion to ensure that the current methods of ensuring low-income customers are aware of, and have access to, conservation programs are effective. These discussions initially have provided some recommendations for additions in 2020 such as more direct and focused advertising, participation in other large scale community events and also providing direct market materials to the company's EMS team members that are facilitating the Neighborhood Weatherization Program.

4. Please provide the number of participants for each type of energy audit completed during 2019:

a. Residential
   i. Free walkthrough audits
   ii. Audits completed over the phone
   iii. Audits completed online
   iv. Paid walkthrough audits
   v. Audits using a computer modeling program
   vi. Other (please specify the type of audit)

b. Commercial/Industrial
   i. Free walkthrough audits
   ii. Audits completed over the phone
   iii. Audits completed online
   iv. Paid walkthrough audits
   v. Other (please specify the type of audit)

A.

a. Residential

i.	Free walkthrough audits	6,786
ii.	Audits completed over the phone	0
iii.	Audits completed online	57,370
iv.	Paid walkthrough audits	1
v.	Audits using a computer modeling program	1
vi.	Other (please specify the type of audit)	0 (BERS)

b. Commercial/Industrial

i.	Free walkthrough audits	866
ii.	Audits completed over the phone	0
iii.	Audits completed online	N/A (Note 1)
iv.	Paid walkthrough audits	1
v.	Other (please specify the type of audit)	0

Note 1: Tampa Electric does not have an online energy audit tool for commercial/industrial customers at this time.

5. Participation in the Residential Customer-Assisted Audit Program more than doubled from 2018 to 2019 (27,734 to 57,370 participants). Please explain the factors that led to this increase.

A. The increase in participation in the Residential Customer-Assisted Audit Program is due to the following:

- Tampa Electric implemented a newly enhanced Residential Customer-Assisted Audit in July of 2018 that is less time consuming for customers to complete and provides a more user-friendly experience.
- When moved to the new platform, it was added to the front page of the Tampa Electric portal online allowing easier access for customers to see and use the new tool.
- Marketing efforts have increased participation by promoting the program through bill onserts (both paper and online bills), the Tampa Electric portal carousel on the main page with a call to action link, through social media, through e-news updates, through a promotional commercial ad played locally to Tampa Electric's audience, etc.

6. TECO did not enroll any participants in the Commercial Duct Repair Program in 2019. Participation has been near zero over the past three years. Please explain the factors that have led to these results and what TECO plans to do to address them.

A. Tampa Electric believes that this DSM program's participation is less than projected due to the market being saturated in addition to the requirement of building codes that requires ducts to be sealed if a permit is pulled when upgrading air conditioning equipment. Tampa Electric has proposed discontinuing this DSM program in the company's proposed 2020-2029 DSM Plan that was filed on February 19, 2020.

7. Participation in the Commercial Lighting - Conditioned Space Program more than doubled from 2018 to 2019 (193 participants to 421 participants). Please explain the factors that led to this increase.

A. Tampa Electric experienced excellent participation in 2019, mainly due to a large school district initiating a district-wide, interior (conditioned space) lighting conversion to light emitting diode technology. In 2019, the schools completed Phase one which increased the program's participation. Each school is considered a separate participant and the company disbursed qualifying rebates for 234 schools. The remaining activity was from other customers which was more in line with typical historical trends for participation.