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August 25, 2020

VIA: ELECTRONIC FILING


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

Re: TECO 2020 Load Research Sampling Plan

Dear Mr. Teitzman:

Attached are Tampa Electric Company's answers to Staff's First Data Request (Nos. 1-5) dated August 11, 2020.

Sincerely,



James D. Beasley

JDB/bmp
Attachment

cc: Michael Barrett (w/attachments)
Bill McNulty (w/attachments)
Billy Stiles (w/o attachments)

**TAMPA ELECTRIC COMPANY
UNDOCKETED: 2020 LOAD
RESEARCH SAMPLING PLAN
STAFF'S FIRST DATA REQUEST
REQUEST NO. 1
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Please answer the following questions regarding TECO's 2020 Load Research Sampling Plan (2020 Plan).

- 1.** TECO's 2020 Load Research Sampling Plan (p. 2) reports that "The RS class sample did not require any changes." Please justify the use of an unchanged sample size for the RS class.
 - A.** The RS sample did not require any changes because it met all required accuracy levels. The sample size is above the computed sample size level for meeting accuracy requirements.

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2. According to p. 9 of the 2020 TECO Load Research Sampling Plan, "Sample sizes are well above the computed sample size levels for meeting accuracy requirements." Please provide the sample sizes computed by TECO for meeting accuracy requirements.

A. The sample sizes computed by TECO for meeting accuracy requirements are shown below. The proposed sample sizes are also provided for comparison purposes.

	RS		GS		GSD	
	Proposed Sample Size	Computed Sample Size at 10% Precision	Proposed Sample Size	Computed Sample Size at 10% Precision	Proposed Sample Size	Computed Sample Size at 10% Precision
Jan	275	152	500	373	140	42
Feb	275	102	500	205	140	27
Mar	275	61	500	359	140	13
Apr	275	67	500	231	140	19
May	275	44	500	255	140	16
Jun	275	36	500	237	140	17
Jul	275	45	500	150	140	12
Aug	275	31	500	282	140	11
Sep	275	39	500	169	140	13
Oct	275	38	500	170	140	10
Nov	275	73	500	176	140	11
Dec	275	116	500	155	140	25

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3. According to p. 9 of the 2020 TECO Load Research Sampling Plan, "As of 2019, customers that have an AMI meter (smart meter) at their location will not get their meter replaced... Both meter types are being used until full deployment of the AMI meters throughout Tampa Electric's service territory."
- a. Please explain the differences between the installed pulse-initiating meters and customers current AMI meters, if any.
 - b. When does the Company plan on having full deployment of the AMI meters throughout it's service territory?
 - c. Is it possible that TECO could (or will) perform load research sampling activities remotely? If so, please state when TECO would have that capability.
 - d. What amount of savings, if any, does TECO anticipate it will achieve by relying, in part, on AMI meters as opposed to deploying pulse-meters to conduct its load research during the three year period? How did TECO calculate such savings?
- A.
- a. The basic difference between a pulse-initiating meter and an AMI meter is how consumed energy is recorded into intervals inside each meter's memory. In a pulse-initiating meter, pulses are generated and stored as energy is consumed. In an AMI meter, the meter subtracts the register value recorded at the beginning of an interval from the register value recorded at the end of the interval as the consumed energy for the interval.
 - b. TECO will be completed replacing residential 2S meters during Q2 2021. Other meter forms will be deployed throughout the remainder of 2021.
 - c. Yes, TECO plans to perform load research sampling activities remotely once full deployment of AMI meters is completed at the end of 2021. TECO is currently remotely reading all load research sample meters that are AMI.

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- d. TECO has not done a complete cost analysis of replacing pulse-meters with AMI meters, therefore savings are not available at this time.

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4. Please provide all statistical calculations TECO relied upon to create the Proposed Sampling Plan, including the determination of the class's total sample size, the strata breakpoints, and the sample size for each stratum which were not 100% sampled.
 - A. The calculations TECO relied upon to create the Proposed Sampling Plan's random sample sizes and stratum sizes are in the attached Excel files named:
 - “(BS 6) Sample Size Calculations.xls”,
 - “(BS 7) EX2_RS export”,
 - “(BS 8) EX2_GS export”,
 - “(BS 9) EX2_GSD export”.

The class's total sample size is determined by the sum of the random sample and the 100% sample. The 100% sample is based on a customer's metered and delivered voltage levels. Voltage level stratification was used to facilitate analysis required for performing cost of service studies.

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5. Why is it appropriate to not further stratify the “Single Family Detached” Stratum (RS class) based on kilowatt hour usage?
 - A. The Single-Family Detached housing-type stratum meets the desired accuracy requirements, therefore no further stratification was necessary.