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September 7, 2023

**VIA: ELECTRONIC TRANSMISSION**

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

Re: TECO 2023 Load Research Sampling Plan  
UNDOCKETED

Dear Mr. Teitzman:

Attached for filing as Undocketed are Tampa Electric Company's responses to Staff's First Data Request (Nos. 1-4) for Tampa Electric Company's Load Research Sampling Plan report.

Thank you for your assistance in connection with this matter.

Sincerely,

A handwritten signature in blue ink that reads 'Malcolm N. Means'.

Malcolm N. Means

MNM/bml  
Attachment

cc: Paula K. Brown (w/o attachment)  
TECO Regulatory

**TAMPA ELECTRIC COMPANY  
UNDOCKETED: REVIEW OF 2023 LRSP  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 1  
BATES PAGE(S): 1-2  
FILED: SEPTEMBER 7, 2023**

1. Page 5 of the 2023 Plan states, in part, that the “accuracy for each rate class was calculated in the conventional manner for combined ratio analysis.” Please answer the following:
  - A. Please describe each step of the calculation referenced in this text.
  - B. Please provide an explanation for “combined ratio analysis.”
- A.
  - a. Refer to the Tampa Electric electronic attachment in MS Excel format containing, “BS#2\_2022 Sample Size Calculations.xlsx” for each step of the accuracy calculation for each rate class.
  - b. The use of the “combined ratio analysis” in load research is to expand sample data to estimate total system (population) parameters and to estimate the reliability of the results. The combined ratio analysis calculation relates demand to energy use.

Refer to the Tampa Electric electronic attachment in MS Excel format containing “BS#2\_2022 Sample Size Calculations.xlsx” tab “Calc Example, line 16” for details on this calculation and how it is used in the accuracy calculation in 1A above.

**TAMPA ELECTRIC COMPANY  
UNDOCKETED: REVIEW OF 2023 LRSP  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 2  
BATES PAGE(S): 3  
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2. According to p. 9 of the 2023 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 for the following:
- A. The RS Rate class.
  - B. The GS Rate class (at the 0 – 14,999 kWh usage level).
  - C. The GS Rate class (at the usage level above 15,000 kWh).
  - D. The GSD Rate class (at the 0 – 199 kW usage level).
  - E. The GSD Rate class (at the 200 – 499 kW usage level).
- A.
- a. Refer to the Tampa Electric electronic attachment in MS Excel format containing "BS#2\_2022 Sample Size Calculations.xlsx", "Summary" tab, lines 10 and 39.
  - b. Refer to the Tampa Electric electronic attachment in MS Excel format containing "BS#2\_2022 Sample Size Calculations.xlsx", "Summary" tab, lines 20 and 49.
  - c. Refer to the Tampa Electric electronic attachment in MS Excel format containing "BS#2\_2022 Sample Size Calculations.xlsx", "Summary" tab, lines 21 and 50.
  - d. Refer to the Tampa Electric electronic attachment in MS Excel format containing "BS#2\_2022 Sample Size Calculations.xlsx", "Summary" tab, lines 28 and 57.
  - e. Refer to the Tampa Electric electronic attachment in MS Excel format containing "BS#2\_2022 Sample Size Calculations.xlsx", "Summary" tab, lines 29 and 58.

**TAMPA ELECTRIC COMPANY  
UNDOCKETED: REVIEW OF 2023 LRSP  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 3  
BATES PAGE(S): 4  
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3. Page 9 of the 2023 Plan references information on customers that have an AMI meter (smart meter) at their location. Please answer the following:

- A. Have AMI meters been deployed throughout the entire territory that Tampa Electric Company serves? If not, please state when full deployment of the AMI meters is projected to occur.
- B. Has Tampa Electric Company evaluated the cost savings, if any, it will achieve by relying, in part, on AMI meters as opposed to deploying pulse-meters to conduct its load research during this three-year review period? If applicable, please explain how the savings were calculated and how this may factor into future ratemaking requests.
- C. Will the implementation of the AMI technology allow the utility to adequately perform the load sampling process without installing additional recording devices at customer locations? Please explain your response.

- A.
  - a. AMI meters have been deployed throughout the entire Tampa Electric territory with the exception of customers in the Opt Out Program, paying a monthly fee for a meter reader to manually read their meter, and customers that are billed by intervals, needing a pulse-initiating meter.
  - b. No, Tampa Electric has not done a complete cost analysis of replacing pulse meters with AMI meters, therefore savings are not available at this time.
  - c. Yes, AMI technology allows Tampa Electric to read meters remotely, collect interval data and transfer data to Load Research without the need for additional recording devices. The meter is called four times daily and the read and interval data for the last six hours is obtained. The interval data is transferred to the Meter Data Management database then sent to Load Research by AMI Operations.

**TAMPA ELECTRIC COMPANY  
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REQUEST NO. 4  
BATES PAGE(S): 5  
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- 4.** Please provide summary 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.** Refer to the Tampa Electric electronic attachment in MS Excel format containing "BS#2\_2022 Sample Size Calculations.xls" for the calculations TECO relied upon to create the Proposed Sampling Plan's random sample sizes and stratum sizes.

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.