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## 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: September 11, 2018

TO: Carlotta S. Stauffer, Commission Clerk, Office of Commission Clerk

FROM: Takira Thompson, Engineering Specialist, Division of Engineering

**RE:** Docket No. 20180000-OT - Undocketed filings for 2018.

Please file the attached, "TECO – TYSP Staff's Supplemental Data Request #4," in the above mentioned docket file.

Thank you.

TTT/pz

Attachment

COMMISSIONERS: ART GRAHAM, CHAIRMAN JULIE I. BROWN DONALD J. POLMANN GARY F. CLARK ANDREW GILES FAY



DIVISION OF ENGINEERING TOM BALLINGER DIRECTOR (850)413-6910

## **Public Service Commission**

September 11, 2018

VIA EMAIL

Mr. Billy Stiles Tampa Electric Company wjstiles@tecoenergy.com regdept@tecoenergy.com

Dear Mr. Stiles:

## Re: Review of the 2018 Ten-Year Site Plans for Florida's Electric Utilities Supplemental Data Request #4

Please electronically file all responses to the attached Staff's Supplemental Data Request #4, no later than Tuesday, October 2, 2018, via the Commission's website at www.floridapsc.com by selecting the Clerk's Office tab and Electronic Filing Web Form. Please reference 20180000-OT (Undocketed filings for 2018). In addition, please email responses to Takira Thompson at tthompso@psc.state.fl.us.

If you have any questions, please contact Takira Thompson by phone at (850) 413-6592 or at the email address provided above, or contact Phillip Ellis by phone at (850) 413-6626 or by email at pellis@psc.state.fl.us.

Sincerely,

Taken: Thoupson

Takira Thompson Engineering Specialist Division of Engineering

TTT:pz

Enclosure

cc: Office of Commission Clerk (20180000-OT – Undocketed filings for 2018)

- 1. Please refer to Schedule 3.2 History and Forecast of Winter Peak Demand (MW) Base Case, Column (2) Total, presented in TECO's 2017 Ten-Year Site Plan (TYSP), page 44, and 2018 TYSPs, page 42, respectively. Please explain why each of the forecasted total winter peak demand levels in 2018 TYSP is higher than those forecasted in TECO's 2017 TYSP (e.g., 4,903 MW vs. 4,882 MW for Winter 2017/18), given that TECO's 2016/17 actual shows the opposite (3,749 MW actual vs. 4,818 MW forecasted in 2017 TYSP).
- 2. With respect to the forecasting methodology, procedures, and models developed associated with Winter and Summer Peak Demand, please specify all the differences/ modifications/ improvements, if any, between what used in TECO's 2018 TYSP and TECO's 2017 TYSP.
- 3. For its 2018 TYSP, please identify and explain the measures and/or criteria, if any, TECO used to ensure the models of peak demand adequately explain historical volatility and to enhance the forecasting accuracy.
- 4. Please identify and explain the new measures, if any, TECO used to address the uncertainty inherent in the process of peak demand forecasting for its 2018 TYSP.
- 5. Please provide the historical forecast accuracy associated with TECO's Winter Peak Demand for the period 2012/13 through 2016/17 and Summer Peak Demand for the period 2013 through 2017 using the tables below.

Forecast	Winter Peak Demand Forecast Error Rate (%) Forecasting Period Prior						
Torecast							
Actual	5	4	3	2	1		
	2008 TYSP	2009 TYSP	2010 TYSP	2011 TYSP	2012 TYSP	_	
2012/13							
	2009 TYSP	2010 TYSP	2011 TYSP	2012 TYSP	2013TYSP		
2013/14							
	2010 TYSP	2011 TYSP	2012 TYSP	2013TYSP	2014 TYSP		
2014/15							
	2011 TYSP	2012 TYSP	2013 TYSP	2014 TYSP	2015 TYSP	-	
2015/16							
	2012 TYSP	2013 TYSP	2014 TYSP	2015 TYSP	2016 TYSP		
2016/17							

Table 1. Accuracy of TECO's Winter Peak Demand Forecasts

Forecast	Summer Peak Demand Forecast Error Rate (%) Forecasting Period Prior						
Actual	5	4	3	2	1		
	2008 TYSP	2009 TYSP	2010 TYSP	2011 TYSP	2012 TYSP	-	
2013		_					
	2009 TYSP	2010 TYSP	2011 TYSP	2012 TYSP	2013TYSP	-	
2014							
	2010 TYSP	2011 TYSP	2012 TYSP	2013TYSP	2014 TYSP		
2015							
	2011 TYSP	2012 TYSP	2013 TYSP	2014 TYSP	2015 TYSP	-	
2016							
	2012 TYSP	2013 TYSP	2014 TYSP	2015 TYSP	2016 TYSP		
2017							

Table 2. Accuracy of TECO's Summer Peak Demand Forecasts

6. Please refer to Schedule 3.2 History and Forecast of Winter Peak Demand (MW) Base Case, Column (2) Total, presented in TECO's 2017 TYSP, page 44, and 2018 TYSPs, page 42, respectively. Please explain why each of the forecasted total winter peak demand levels in 2018 TYSP is higher than those forecasted in TECO's 2017 TYSP (e.g., 4,903 MW vs. 4,882 MW for Winter 2017/18), given that TECO's 2016/17 actual shows the opposite (3,749 MW actual vs. 4,818 MW forecasted in 2017 TYSP).