

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: August 9, 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.

TT PoE
[Signature]

Please file the attached, "FPL – TYSP Staff's Supplemental Data Request #2," in the above mentioned docket file.

Thank you.

TT/pz

Attachment

COMMISSIONERS:
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STATE OF FLORIDA



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

Public Service Commission

August 9, 2018

Ms. Lynne Adams
Florida Power & Light
Lynne_Adams@fpl.com

VIA EMAIL

Dear Ms. Adams:

Re: Review of the 2018 Ten-Year Site Plans for Florida's Electric Utilities Supplemental Data Request #2

Please electronically file all responses to the attached Staff's Supplemental Data Request #2, no later than Wednesday, September 5, 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 tthomps@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,

A handwritten signature in blue ink that reads "Takira Thompson".

Takira Thompson
Engineering Specialist
Division of Engineering

TT:pz

Enclosure

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

1. Please refer to Florida Power & Light Company's (FPL) 2018 Ten-Year Site Plan (TYSP), page 35, and 2017 TYSP, page 37, for the following questions:
 - a. Referring to System Summer Peak of 2018 TYSP, please explain why FPL used Florida real per capita income to replace Florida real household disposable income, which had been used in 2017 TYSP, as one of the forecasting model inputs.
 - b. Referring to System Summer Peak of 2018 TYSP, please explain why FPL did not include the variable "3-month average Consumer Price Index (CPI)," which had been used in FPL's 2017 TYSP, in its Summer Peak Demand forecasting model.
 - c. Referring to 2018 TYSP System Winter Peak, please explain why FPL determined to use dummy variables for "post-2011" and "winter 2008" instead of the 2017 TYSP dummy variables (i.e. "Winter peaks occurring on weekends" and "Winter peaks occurring in February") to build its 2018 TYSP forecasting model.
 - d. Referring to 2018 TYSP System Winter Peak, please explain why FPL determined to include a new input variable "Total customers" in its forecasting model.
 - e. Referring to 2018 TYSP System Winter Peak, please explain why FPL discontinued the input variable "Housing starts per capita," which had been used in FPL's 2017 TYSP, in its forecasting model.
2. Referring to FPL's 2017 TYSP, page 37, please provide a definition of the P80 monthly peak forecast and why it is used for load forecast in FPL's 2018 TYSP but not in FPL's 2017 TYSP.
3. With respect to the forecasting methodology, procedures, and models developed associated with FPL's Winter and Summer Peak Demand, please specify all the differences/ modifications/ improvements, if any, between FPL's 2017 TYSP and 2018 TYSPs.
4. For its 2018 TYSP, please identify and explain the measures and/or criteria, if any, FPL used to ensure the models of peak demand adequately explain historical variations and to enhance FPL's forecasting accuracy.
5. Please identify and explain the new measures, if any, FPL used to address the uncertainty inherent in the process of peak demand forecasting for its 2018 TYSP.

6. Please provide the Historical Forecast Accuracy associated with FPL’s Winter and Summer Peak Demand for the period 2013 – 2017.

Table 1. Accuracy of FPL’s Winter Peak Demand Forecasts

Forecast Actual	Winter Peak Demand Forecast Error Rate (%)					Average
	Forecasting Period Prior					
	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 FPL’s Summer Peak Demand Forecasts

Forecast Actual	Summer Peak Demand Forecast Error Rate (%)					Average
	Forecasting Period Prior					
	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						

7. Referring to Schedule 3.2, Winter Peak Demand (megawatts (MW)), columns (2) and (10), on page 42 of FPL’s 2018 TYSP, please explain why the actual 2017 total and net firm demands are significantly lower than FPL’s 2017 TYSP projection.
8. Please provide when and explain why the Exelon Generation Company, LLC PPA was executed.
9. Please explain whether or not any planned unit additions are to specifically meet FPL’s generation-only reserve margin. If so, please identify the unit additions.
10. Please provide the current status of FPL’s Large Scale Storage Pilot Project.

11. Per FPL's 2018-2027 Ten Year Power Plant Site Plan Errata, please provide the updated schedules in Microsoft Excel format.
12. Per FPL's second 2018-2027 Ten Year Power Plant Site Plan Errata, please provide the updated Schedule 1 in Microsoft Excel format.
13. Please explain why FPL plans to add 298 MW of solar additions in 2022 although it is not necessary to meet FPL's reserve margin requirements.
14. Please identify which units' combustion turbine components will be upgraded to help account for the retirement of Martin Units 1 & 2, and provide the amount of additional capacity (MW) expected from each of these upgrades.
 - a. Provide any additional sources of capacity that FPL anticipates acquiring to help account for the retirement of Martin Units 1 & 2.
15. Please explain whether or not Martin Units 1 & 2 can be repowered to improve the efficiency of the units.
16. Please refer to FPL's responses to staff's Supplemental Data Request #1, No. 36. Please indicate whether or not FPL plans to pursue any of these projects. If so, please identify which and provide the status of these proposed projects.
17. Please explain how FPL calculates solar degradation.
 - a. Please discuss whether or not FPL accounts for solar degradation in cost-effectiveness evaluations.
 - b. Please identify the possible causes of solar degradation.