

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: July 5, 2023
TO: Adam Teitzman, Commission Clerk, Office of Commission Clerk
FROM: Greg Davis, Engineering Specialist, Division of Engineering *GD*
Phillip Ellis, Public Utilities Supervisor, Division of Engineering *LK*
RE: Docket No. 20230000-OT - Undocketed filings for 2023.

Please file in the above mentioned docket file the attached documents, Staff's Data Request #3 to Florida Municipal Power Agency and Staff's Data Request #4, which was sent via email to each of the Ten-Year Site Plan utilities listed below:

Duke Energy Florida, Inc.
Florida Power & Light Company
Gainesville Regional Utilities
JEA
Lakeland Electric
Orlando Utilities Commission
Seminole Electric Cooperative
Tampa Electric Company

GD/pz

Attachment

July 5, 2023

Dear Utility Representatives,

This year's Ten-Year Site Plan Review process (TYSP Review) is being led by Greg Davis and Phillip Ellis in the Florida Public Service Commission's (FPSC) Division of Engineering. Contact information is as follows:

Greg Davis
Office: (850) 413-6582
Email: GDavis@psc.state.fl.us

and

Phillip Ellis
Office: (850) 413-6626
Email: PEllis@psc.state.fl.us

Attached is Staff's Data Request #4. Please submit your responses to this data request to both the FPSC Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

Please email your responses to questions to Greg and Phillip by **Wednesday, July 26, 2023**. Please submit all **narrative** responses following their respective questions in a **single Microsoft Word** document, making sure to preserve question order.

Submission to the FPSC Office of Commission Clerk

1. Please convert the narrative responses sent to the FPSC Division of Engineering into a single PDF document.
2. Please electronically file this PDF document via the Commission's website no later than **Wednesday, July 26, 2023**.
 - a. Navigate to www.floridapsc.com.
 - b. At the top of the page, hover the mouse cursor over the "Clerk's Office" tab.
 - c. Select from the drop-down menu "Electronic Filing Web Form."
 - d. Please complete the form, referencing "Docket No. 20230000-OT."
 - e. Attach to the form the PDF created in Step 1 as the "Primary PDF."
 - f. Submit the form.

If you have any questions, please contact Greg Davis and Phillip Ellis.

Sincerely,
Patti Zellner
Administrative Assistant
Division of Engineering
Phone: (850) 413-6208
Email: pzellner@psc.state.fl.us

Enclosure

cc: Office of Commission Clerk (20230000-OT – Undocketed filings for 2023)

1. FMPA's 2023 TYSP, Schedule 2.2, column (8) Total Sales to Ultimate Consumers, indicates that FMPA's 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this significant incremental annual sales increase.

DEF

1. For the following questions, please refer to DEF’s Response to Staff’s First Data Request No. 20 (DEF’s **2022 TYSP**) and DEF’s Response to Staff’s First Data Request No. 22 (DEF’s **2023 TYSP**).

DEF 2022 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2022	33,325	*	573	1.45	0.5	24
2023	42,404		926	3.6	1.3	54
2024	52,918		1,438	6.6	1.9	92
2025	65,134		2,128	10.5	2.7	139
2026	79,267		3,035	15.3	3.8	199
2027	95,455		4,170	21.2	5.3	275
2028	114,021		5,459	28.1	7.2	367
2029	135,439		6,867	37.0	9.5	470
2030	160,059		8,382	44.6	12.1	586
2031	188,139		10,018	54.0	14.8	712

Notes

1. Source: Fall 2021 EV Forecast.
- Previous EV forecasts only included Light Duty. This version includes Light, Medium, and Heavy Duty forecasts. Light duty is considered passenger vehicles (Class 1 and 2). Medium duty is delivery vehicles (Class 3 - 6 vehicles). Heavy duty are transit, school, haul vehicles (Class 7 and 8).
2. "Number of PEVs" includes total cumulative PEV vehicles which includes Light, Medium, and Heavy duty
3. "Cumulative Impact of PEVs" includes only net-new vehicles beginning January 2022 as used in Load Forecast. Includes Light, Medium, and Heavy duty demand and energy impacts.
4. Summer Demand: August HE 18. Winter Demand: January HE 08
5. * Duke currently forecasts L2 private and public chargers together. Duke is developing a charger forecasting tool that will differentiate between the two in the future.

DEF 2023 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2023	50,326	2,644	772	4	2	78
2024	71,688	3,403	1,069	9	4	149
2025	98,400	4,163	1,410	14	5	241
2026	131,212	4,914	1,801	21	8	356
2027	171,260	5,675	2,253	30	10	495
2028	221,135	6,509	2,798	40	14	663
2029	283,625	7,470	3,469	52	18	863
2030	360,959	8,593	4,288	66	22	1105
2031	453,548	9,876	5,253	83	28	1389
2032	562,110	11,341	6,373	103	35	1722

Notes

1. Source: Fall 2022 EV Forecast
2. "Number of PEVs" total cumulative PEV vehicles which includes includes Light, Medium, and Heavy Duty Vehicles.
3. "Cumulative Impact of PEVs" includes only net-new vehicles beginning January 2023 as used and provided to load forecasting. This includes impacts from light, medium, and heavy duty vehicles.
4. Summer Demand: August HE 18. Winter Demand: January HE 08
5. "Number of Public PEV charging stations" includes both L2 and DC charging stations

Comparing the PEV forecast responses for DEF’s 2022 and 2023 TYSP’s, the Company has significantly increased its PEV forecast over the planning period (see chart/calculations below). Please identify and explain the major drivers/factors in DEF’s PEV forecasting models that have contributed to this significant increase over the planning period.

Year	2023 TYSP Forecasted Number of PEVs	2022 TYSP Forecasted Number of PEVs	2023 vs. 2022 Forecast Variance	Incremental Percentage Increase
	(1)	(2)	(3)= (1) - (2)	(3)/(2)
2022		33,325		
2023	50,326	42,404	7,921	18.68%
2024	71,688	52,918	18,770	35.47%
2025	98,400	65,134	33,266	51.07%
2026	131,212	79,267	51,945	65.53%
2027	171,260	95,455	75,805	79.41%
2028	221,135	114,021	107,113	93.94%
2029	283,625	135,439	148,186	109.41%
2030	360,959	160,059	200,900	125.52%
2031	453,548	188,139	265,409	141.07%
2032	562,110			

2. DEF’s 2023 TYSP, Schedule 2.2.1, column (8) Total Sales to Ultimate Consumers, indicates that DEF’s 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this significant incremental annual sales increase.

1. FPL's 2023 TYSP, Schedule 2.2, column (16) Sales to Ultimate Consumers, indicates that FPL's 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this significant incremental annual sales increase.

- For the following questions, please refer to GRU’s Response to Staff’s First Data Request No. 20 (GRU’s **2022** TYSP) and GRU’s Response to Staff’s First Data Request No. 22 (GRU’s **2023** TYSP).

GRU 2022 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
0 [2022]*	1,065	85	19	2.7	4.0	3.834
1 [2023]*	1,331	94	23	3.3	5.0	4.793
2 [2024]*	1,664	103	27	4.2	6.2	5.991
3 [2025]*	2,080	113	33	5.2	7.8	7.488
4 [2026]*	2,600	124	39	6.5	9.8	9.360
5 [2027]*	3,250	137	47	8.1	12.2	11.700
6 [2028]*	4,063	151	57	10.2	15.2	14.626
7 [2029]*	5,078	166	68	12.7	19.0	18.282
8 [2030]*	6,348	182	82	15.9	23.8	22.852
9 [2031]*	7,935	200	98	19.8	29.8	28.566
Notes						
* Bracketed years added by Commission staff						

GRU 2023 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2023	1,370	94	25	2.05	1.95	4.416
2024	1,868	94	49	4.55	4.45	6.025
2025	2,549	95	50	4.56	4.46	8.237
2026	3,249	96	50	4.56	4.47	11.212
2027	4,141	97	50	4.57	4.47	14.292
2028	5,277	98	50	4.58	4.48	18.215
2029	6,725	99	50	4.58	4.49	23.264
2030	8,570	100	50	4.59	4.50	29.577
2031	10,359	101	50	4.60	4.50	37.693
2032	12,522	102	50	4.61	4.51	45.565
Notes						
Number of PEVs and Annual Energy came from The Energy Authority. Charging station counts and demand forecasts were developed internally.						

- a. Please explain why GRU's 2023 TYSP projects PEV Summer and Winter Demand to be significantly lower over the planning period than GRU's 2022 TYSP, despite a projected increase in number of PEVs and annual energy consumption.
- b. Please explain why GRU's 2023 TYSP projects a significant decrease of public charging stations over the planning period compared to GRU's 2022 TYSP.

- For the following questions, please refer to JEA’s Response to Staff’s First Data Request No. 20 (JEA’s **2022 TYSP**) and JEA’s Response to Staff’s First Data Request No. 22 (JEA’s **2023 TYSP**).

JEA 2022 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2022	4,220	110		2.67	0.24	17
2023	5,477	124		3.73	0.34	24
2024	6,939	139		4.97	0.45	32
2025	8,589	155		6.37	0.57	41
2026	10,419	172		7.93	0.71	51
2027	12,441	190		9.65	0.87	62
2028	14,689	209		11.57	1.04	75
2029	17,187	229		18.33	1.23	88
2030	19,951	251		21.48	1.45	104
2031	22,993	274		24.96	1.68	120
Notes						
(Include Notes Here)						

JEA 2023 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2023	5,739	145		2.05	0.53	23,826
2024	7,651	170		2.96	0.77	34,460
2025	9,782	197		3.98	1.04	46,335
2026	12,150	226		5.12	1.34	59,564
2027	14,772	258		6.38	1.66	74,234
2028	17,653	292		7.76	2.03	90,390
2029	20,803	328		13.54	2.42	108,085
2030	24,222	367		15.95	2.86	127,330
2031	27,920	408		18.56	3.32	148,186
2032	31,905	452		21.38	3.83	170,696
Notes						
(Include Notes Here)						

- a. Please explain why JEA's 2023 TYSP projects a significant increase in PEV public charging stations over the planning period, compared to JEA's projection in last year's TYSP.
 - b. Please explain why JEA's 2023 TYSP projects a significant increase in PEV Winter Demand over the planning period compared to JEA's projection in last year's TYSP.
 - c. Please explain why JEA's 2023 TYSP projects PEV Summer Demand to be lower over the planning period than JEA's 2022 TYSP, despite a projected increase in number of PEVs operating in JEA's service territory.
 - d. Please confirm that the Cumulative Annual Energy Consumption totals in JEA's 2023 TYSP are in MWh units and not GWh units as the chart depicts.
2. JEA's 2023 TYSP, Schedule 2.2, column (13) Total Sales to Ultimate Consumers, indicates that JEA's 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this incremental annual sales increase.

1. LAK's 2023 TYSP, Schedule 2.2, column (8) Total Sales to Ultimate Consumers, indicates that LAK's 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this significant incremental annual sales increase.

1. OUC's 2023 TYSP, Schedule 2.2, column (8) Total Sales to Ultimate Consumers, indicates that OUC's 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this significant incremental annual sales increase.

1. SEC's 2023 TYSP, Schedule 2.2, column "Total Member Sales to Ultimate Consumers," indicates that SEC's 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this significant incremental annual sales increase.

- For the following questions, please refer to TECO’s Response to Staff’s First Data Request No. 20 (TECO’s **2022** TYSP) and TECO’s Response to Staff’s First Data Request No. 22 (TECO’s **2023** TYSP).

TECO 2022 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2022	12,218	461	97	26.6	11.5	34.6
2023	14,890	512	107	31.7	13.9	45.5
2024	17,742	562	118	37.1	16.4	57.3
2025	20,785	613	128	42.8	19.0	70.3
2026	24,119	664	139	48.9	21.9	84.6
2027	27,808	714	150	55.6	25.0	100.8
2028	31,977	765	160	63.0	28.5	118.3
2029	36,561	815	171	71.0	32.4	137.9
2030	41,599	866	181	79.7	36.5	159.5
2031	47,156	917	192	89.2	41.0	183.0
Notes						
Cumulative counts provided. The number of public "quick-charge" PEV charging stations is a subset of the number of Public EV Charging Stations. Home charging load estimated at 20% of residential EV demand at time of summer retail peak and at 10% of residential EV demand at time of winter retail peak. Public charging station load estimated at 84% of commercial EV demand at time of summer retail peak and at 24% of commercial EV demand at time of winter retail peak. Forecast ties to TYSP filed April 1, 2022.						

TECO 2023 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2023	33,935	870	148	20.3	5.6	171.6
2024	47,775	993	169	23.7	6.7	219.2
2025	62,272	1,126	191	27.5	7.9	272.2
2026	77,456	1,270	216	31.7	9.2	331.0
2027	93,214	1,425	242	36.3	10.7	395.6
2028	109,526	1,591	270	41.1	12.2	463.8
2029	126,757	1,767	300	46.3	13.9	538.1
2030	145,373	1,955	332	51.9	15.7	620.2
2031	165,432	2,154	366	57.9	17.6	710.7
2032	187,198	2,363	401	64.3	19.8	810.6
Notes						
Cumulative counts provided. The number of public "quick-charge" PEV charging stations is a subset of the number of Public EV Charging Stations. Home charging load estimated at 20% of residential EV demand at time of summer retail peak and at 10% of residential EV demand at time of winter retail peak. Public charging station load estimated at 84% of commercial EV demand at time of summer retail peak and at 24% of commercial EV demand at time of winter retail peak. Forecast ties to TYSP filed April 1, 2023.						

- a. Comparing TECO’s 2022 and 2023 TYSP’s, the Company has significantly increased its PEV forecast over the planning period (see chart/calculations below). Please identify and explain the major drivers/factors in TECO’s PEV forecasting models that have contributed to this significant increase over the planning period.

Year	2023 TYSP Forecasted Number of PEVs	2022 TYSP Forecasted Number of PEVs	2023 vs. 2022 Forecast Variance	Incremental Percentage Increase
	(1)	(2)	(3)= (1) - (2)	(3)/(2)
2022		12,218		
2023	33,935	14,890	19,045	127.91%
2024	47,775	17,742	30,033	169.28%
2025	62,272	20,785	41,486	199.60%
2026	77,456	24,119	53,336	221.14%
2027	93,214	27,808	65,406	235.20%
2028	109,526	31,977	77,549	242.52%
2029	126,757	36,561	90,196	246.70%
2030	145,373	41,599	103,774	249.46%
2031	165,432	47,156	118,276	250.82%
2032	187,198			

- b. Please explain why TECO’s 2023 TYSP projects lower PEV Summer and Winter Demand over the planning period compared to last year’s TYSP, despite a projected large increase in PEVs and annual energy consumption.
2. TECO’s 2023 TYSP, Schedule 2.2, column (8) Total Sales to Ultimate Consumers, indicates that TECO’s 2022 retail sales reached a peak for the past 10-year period. Please identify the major contributor(s) to this significant incremental annual sales increase.