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:	June 8, 2022
TO:	Adam Teitzman, Commission Clerk, Office of Commission Clerk
FROM:	Donald Phillips, Engineering Specialist, Division of Engineering
RE:	Docket No. 20220000-OT - Undocketed filings for 2022.

LK
DP POC

Please file in the above mentioned docket file the attached document, Staff's Data Request #3 to DEF, GRU, JEA, Lakeland Electric, OUC, SEC, TAL, TECO regarding the Ten-Year Site Plan.

DP/pz

Attachment

From:	Patti Zellner
To:	Robert Pickels; Matthew Bernier
Cc:	Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to DEF
Date:	Wednesday, June 08, 2022 1:14:59 PM
Attachments:	DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to DEF.pdf DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to DEF.docx

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June 8, 2022

Dear Mr. Pickels and Mr. Bernier,
Attached is Staff's Data Request #3 to Duke Energy Florida (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

1. Please email your responses to Donald Phillips by **Wednesday, June 29, 2022**.
    a. Please submit all **narrative** and any **non-narrative** (if applicable) 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 and combine the 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, June 29, 2022**.
    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. 20220000-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 Donald Phillips.

Donald Phillips
Office: (850) 413-6974
Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

Staff's Data Request #3 to DEF

1. Page 2-15 of DEF's 2022 Ten Year Site Plan (TYSP), Schedule 3.1.1 History and Forecast of Summer Peak Demand (MW), reflects 25 MWs of residential summer peak demand reductions for 2021 (the 2021 value for Column 6 less the 2020 value for Column 6 [1] + 2021 value for Column 7 less the 2020 value for Column 7 [24]). In the DEF's Demand Side Management Annual Report for 2021, dated February 24, 2022 (a/k/a "FEECA filing"), Page 1, the Company reported that it achieved 28 MWs of Residential Summer Peak Demand reductions in 2021. Please explain the variance between the amount of residential summer peak demand reduction reported in the FEECA filing for 2021, compared to the amount of 25 MWs reflected on Page 2-15 in Schedule 3.1.1 for 2021.

2. Page 2-18 of DEF's 2022 Ten Year Site Plan (TYSP), Schedule 3.2.1 History and Forecast of Winter Peak Demand (MW), reflects 25 MWs of residential winter peak demand reductions for 2021 (the 2021 value for Column 6 less the 2020 value for Column 6 [1] + 2021 value for Column 7 less the 2020 value for Column 7 [24]). In the DEF's Demand Side Management Annual Report for 2021, dated February 24, 2022 (a/k/a "FEECA filing"), Page 1, the Company reported that it achieved 47 MWs of Residential Winter Peak Demand reductions in 2021. Please explain the variance between the amount of residential winter peak demand reduction reported in the FEECA filing for 2021, compared to the amount of 25 MWs reflected on Page 2-18 in Schedule 3.2.1 for 2021.

3. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Summer Peak Demand Goals – Residential (MW)*	2022 TYSP Summer Peak Demand Base Case Forecast – Residential Load Management and Conservation (MW), as reflected in Schedule 3.1.1 on Page 2-15**
2022	12.2	28 (2022 value for Column 6 less the 2021 value for Column 6 [1] + 2022 value for Column 7 less the 2021 value for Column 7 [27])
2023	11.3	27 (2023 value for Column 6 less the 2022 value for Column 6 [1] + 2023 value for Column 7 less the 2022 value for Column 7 [26])
2024	10.7	27 (2024 value for Column 6 less the 2023 value for Column 6 [1] + 2024 value for Column 7 less the 2023 value for Column 7 [26])
*Summer Peak Demand Goals (Residential) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **DEF 2022 TYSP Base Case, Schedule 3.1.1, Forecast of Summer Peak Demand, Page 2-15, Columns (6) and (7).		

4. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Winter Peak Demand Goals - Residential (MW)*	2022 TYSP Winter Peak Demand Base Case Forecast - Residential Load Management and Conservation (MW), as reflected in Schedule 3.2.1 on Page 2-18**
2022	24.5	28 (2022 value for Column 6 less the 2021 value for Column 6 [1] + 2022 value for Column 7 less the 2021 value for Column 7 [27])
2023	22.3	28 (2023 value for Column 6 less the 2022 value for Column 6 [1] + 2023 value for Column 7 less the 2022 value for Column 7 [27])
2024	20.9	27 (2024 value for Column 6 less the 2023 value for Column 6 [1] + 2024 value for Column 7 less the 2023 value for Column 7 [26])
*Summer Peak Demand Goals (Residential) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **DEF 2022 TYSP Base Case, Schedule 3.2.1, Forecast Winter Peak Demand, Page 2-15, Columns (6) and (7).		

5. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Summer Peak Demand Goals – Commercial/Industrial (MW)*	2022 TYSP Summer Peak Demand Base Case Forecast – Commercial/Industrial Load Management and Conservation (MW), as reflected in Schedule 3.1.1 on Page 2-15**
2022	6.0	5 (2022 value for Column 8 less the 2021 value for Column 8 [3] + 2022 value for Column 9 less the 2021 value for Column 9 [2])
2023	5.6	5 (2023 value for Column 8 less the 2022 value for Column 8 [3] + 2023 value for Column 9 less the 2022 value for Column 9 [2])
2024	5.0	6 (2024 value for Column 8 less the 2023 value for Column 8 [4] + 2024 value for Column 9 less the 2023 value for Column 9 [2])
*Summer Peak Demand Goals (Residential) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **DEF 2022 TYSP Base Case, Schedule 3.1.1, Forecast of Summer Peak Demand, Page 2-15, Columns (8) and (9).		

6. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Winter Peak Demand Goals - Commercial/Industrial (MW)*	2022 TYSP Winter Peak Demand Base Case Forecast – Commercial/Industrial Load Management and Conservation (MW), as reflected in Schedule 3.2.1 on Page 2-18**
2022	4.7	5 (2022 value for Column 8 less the 2021 value for Column 8 [2] + 2022 value for Column 9 less the 2021 value for Column 9 [3])
2023	5.0	7 (2023 value for Column 8 less the 2022 value for Column 8 [4] + 2023 value for Column 9 less the 2022 value for Column 9 [3])
2024	4.6	5 (2024 value for Column 8 less the 2023 value for Column 8 [3] + 2024 value for Column 9 less the 2023 value for Column 9 [2])
*Summer Peak Demand Goals (Residential) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **DEF 2022 TYSP Base Case, Schedule 3.2.1, Forecast Winter Peak Demand, Page 2-18, Columns (8) and (9).		

7. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Annual Energy Conservation Goals - Residential (GWh)*	2022 TYSP Annual Net Energy For Load Base Case Forecast - Residential Conservation (GWh), as reflected in Schedule 3.3.1 on Page 2-21**
2022	3.8	49 (2022 value minus 2021 value)
2023	2.2	49 (2023 value minus 2022 value)
2024	1.2	49 (2024 value minus 2023 value)
*Annual Energy Conservation Goals (Commercial/Industrial) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **DEF 2022 TYSP Base Case, Schedule 3.3.1, Forecast of Annual Net Energy for Load, Page 2-21, Column (3).		

8. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Annual Energy Conservation Goals - Commercial/Industrial (GWh)*	2022 TYSP Annual Net Energy For Load Base Case Forecast – Commercial/Industrial Conservation (GWh), as reflected in Schedule 3.3.1 on Page 2-21**
2022	2.4	10 (2022 value minus the 2021 value)
2023	1.4	10 (2023 value minus the 2022 value)
2024	0.8	9 (2024 value minus the 2023 value)
*Annual Energy Conservation Goals (Commercial/Industrial) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **DEF 2022 TYSP Base Case, Schedule 3.3.1, Forecast of Annual Net Energy for Load, Page 2-21, Column (4).		

9. Please refer to DEF's 2021 and 2022 TYSPs, pages 2-9 and 2-12, and Table 1 below for the following questions:

Table 1: DEF's Projections of Retail Sales and Total Number of Customers

Year	Schedule 2.2.1, column (8)				Schedule 2.3.1, column (6)			
	Total Sales to Ultimate Customers				Total No. of Customers			
	2021 TYSP		2022 TYSP		2021 TYSP		2022 TYSP	
	GWH	Annual Growth (%)	GWH	Annual Growth (%)	No. of Customers	Annual Growth (%)	No. of Customers	Annual Growth (%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2021	38,530				1,893,024			
2022	39,568	2.69%	39,582		1,923,069	1.59%	1,936,334	
2023	40,123	1.40%	39,840	0.65%	1,952,290	1.52%	1,973,754	1.93%
2024	40,543	1.05%	40,020	0.45%	1,980,697	1.46%	2,010,971	1.89%
2025	40,913	0.91%	40,381	0.90%	2,008,458	1.40%	2,048,074	1.84%
2026	***40,893***	***-0.05%***	***40,393***	***0.03%***	2,035,509	1.35%	2,083,978	1.75%
2027	41,250	0.87%	40,867	1.17%	2,061,747	1.29%	2,117,851	1.63%
2028	41,883	1.53%	41,206	0.83%	2,087,134	1.23%	2,149,784	1.51%
2029	42,202	0.76%	41,662	1.11%	2,111,638	1.17%	2,179,734	1.39%
2030	42,501	0.71%	41,969	0.74%	2,135,241	1.12%	2,208,189	1.31%
2031			42,391				2,235,216	1.22%
Average Annual Growth Rate (AAGR):								
2021-2030		1.10%				1.35%		
2022-2031				0.76%				1.61%
Sources of Data: DEF's 2021 and 2022 TYSPs, pages 2-9 and 2-12.								

a. Referring to Table 1 above, columns (1) through (4), please explain the reason or cause for the projected 2026 trough in the increasing trend of Total Sales to Ultimate Costumers presented in both 2021 and 2022 TYSPs.
b. As indicated in Table 1 above, over the 2021 TYSP forecast horizon, DEF's projected average annual growth rate (AAGR) of Total Number of Customers

and Total Sales to Ultimate Customers is 1.35 percent and 1.10 percent, respectively. Over the 2022 TYSP forecast horizon, DEF projected an AAGR of Total Number of Customers and Total Sales to Ultimate Customers is 1.61 percent and 0.76 percent, respectively. Please explain why, in the 2022 TYSP, DEF projected higher 10-year AAGR of Total Number of Customers but significantly lower 10-year AAGR of Total Sales to Ultimate Customers, compared to what were projected in the 2021 TYSP.

10. Please refer to DEF's Response to Staff's First Data Request, No. 19. DEF states that they utilize Guidehouse's VAST tool which has "an EV Adoption Module which uses multiple variables (registration data, fuel costs, vehicle availability, vehicle miles traveled, etc.) to develop a conservative, base, and aggressive vehicle forecast." Is DEF's PEV projections that are presented in this year's TYSP based on VAST's conservative, base, or aggressive vehicle forecast?

11. Please cite and identify any sources that support DEF's PEV forecast methodology.

12. Please refer to the following: DEF's Response to Staff's First Data Request, No. 19 (DEF's 2021 TYSP) and DEF's Response to Staff's First Data Request, No. 20 (DEF's 2022 TYSP).

    a. Comparing DEF's 2021 and 2022 TYSP's, the Company has increased its PEV forecast for 2022 by approximately 43.4 percent (see charts/calculations below). Please identify and explain the major drivers/factors in DEF's PEV forecasting models that have contributed to this significant increase.

DEF's 2021 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)
2021	17,473	1,006*	257*	1.1	0.1	7.6
2022	23,235	N/A	N/A	3.6	1.3	27.1
2023	31,809	N/A	N/A	7.1	2.9	54.1
2024	43,235	N/A	N/A	11.9	5.3	91.9
2025	57,796	N/A	N/A	18.1	8.5	140.7
2026	73,955	N/A	N/A	25.4	12.4	199.1
2027	91,689	N/A	N/A	33.6	16.8	263.8
2028	111,252	N/A	N/A	42.5	21.7	336.3
2029	132,778	N/A	N/A	52.4	27.1	414.9
2030	156,694	N/A	N/A	63.4	33.1	503.3

Notes

1. Source: Fall 2020 EV Forecast
2. "Number of PEVs" includes total cumulative PEV vehicles
3. "Cumulative Impact of PEVs" includes only net-new vehicles beginning January 2021 as used in Load Forecast
4. Summer Demand: July HE 17. Winter Demand: January HE 08
5. *Duke is currently developing a charger forecasting tool, these are based on year end 2020 actuals

DEF's 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	71.0	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.

Year-over-year forecast variance:
(2022 TYSP forecast of 2022 PEV's – 2021 TYSP forecast of 2022 PEV's)/ 2021 TYSP forecast of 2022 PEV's = (33,325 – 23,235)/23,235 = 43.4 Percent

b. Please explain why DEF is projecting lower winter demand growth over the planning period for PEV charging in its 2022 TYSP compared to its 2021 TYSP despite projecting an increase in the growth rate of the number of PEV's operating in the Company's service territory.
c. Please explain why DEF is projecting, in its 2022 TYSP, a large increase in Summer Demand associated with PEV charging in 2029, followed by a large decrease in 2030.

From:	Patti Zellner
To:	"VerschageJB@gru.com"
Cc:	Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to GRU
Date:	Wednesday, June 08, 2022 1:15:17 PM
Attachments:	DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to GRU .pdf DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to GRU .docx

June 8, 2022

Dear Mr. Verschage,
Attached is Staff's Data Request #3 to Gainesville Regional Utilities (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

1. Please email your responses to Donald Phillips by **Wednesday, June 29, 2022**.
    a. Please submit all **narrative** and any **non-narrative** (if applicable) responses following their respective questions in a **single Microsoft Word** document, making sure to preserve question order.

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    d. Please complete the form, referencing "Docket No. 20220000-OT."
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If you have any questions, please contact Donald Phillips.

Donald Phillips
Office: (850) 413-6974
Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

Staff's Data Request #3 to GRU

1. Please refer to GRU's 2022 TYSP, pages 28 – 29. Figure 1 below indicates that GRU has projected that in 2022, while its customer number will be moderately increased, retail sales will be increased significantly. Please explain the reasons or causes for this projection.

Figure 1: GRU' Projections of Retail Sales and Customers

Source	Schedule 2.2, column (8)		Schedule 2.3, column (6)	
	Total Sales To Ultimate		Total No. of	Annual
Year	GWH	Annual Increase	Consumers	Increase
2020	1,790		99,714	
2021	1,791	0.06%	101,117	1.41%
2022	***1,817***	***1.45%***	***101,727***	***0.60%***
2023	1,825	0.44%	102,322	0.58%
2024	1,835	0.55%	102,903	0.57%
2025	1,847	0.65%	103,471	0.55%
2026	1,859	0.65%	104,024	0.53%
2027	1,871	0.65%	104,564	0.52%
2028	1,883	0.64%	105,089	0.50%
2029	1,895	0.64%	105,601	0.49%
2030	1,908	0.69%	106,097	0.47%
2031	1,920	0.63%	106,581	0.46%

2. Please cite and identify any sources that support GRU's PEV forecast methodology.

3. Please refer to GRU's Response to Staff's First Data Request, No. 19. Please explain why "rapid adoption" of PEV's was assumed in GRU's PEV forecast?

4. Please refer to GRU's Response to Staff's First Data Request No. 19 (GRU's 2021 TYSP) and GRU's Response to Staff's First Data Request No. 20 (GRU's 2022 TYSP). Comparing GRU's 2021 and 2022 TYSP's, the Company has increased its PEV forecast for 2022 by 71.2 percent (see charts/calculations below). Please identify and explain the major drivers/factors in GRU's PEV forecasting models that have contributed to this significant increase.

GRU's 2021 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)
2021	501	78	14	1.3	1.9	1.800
2022	622	86	17	1.6	2.3	2.240
2023	767	94	20	1.9	2.9	2.760
2024	941	104	24	2.4	3.5	3.390
2025	1,147	114	29	2.9	4.3	4.130
2026	1,388	126	35	3.5	5.2	5.000
2027	1,669	138	42	4.2	6.3	6.010
2028	1,995	152	50	5.0	7.5	7.180
2029	2,368	187	60	5.9	8.9	8.520
2030	2,791	184	72	7.0	10.5	10.050
Notes						
(Include Notes Here)						

GRU's 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	1,065	85	19	2.7	4.0	3.834
1	1,331	94	23	3.3	5.0	4.793
2	1,664	103	27	4.2	6.2	5.991
3	2,080	113	33	5.2	7.8	7.488
4	2,600	124	39	6.5	9.8	9.360
5	3,250	137	47	8.1	12.2	11.700
6	4,063	151	57	10.2	15.2	14.626
7	5,078	166	68	12.7	19.0	18.282
8	6,348	182	82	15.9	23.8	22.852
9	7,935	200	98	19.8	29.8	28.566
Notes						

Year-over-year forecast variance:
(2022 TYSP forecast of 2022 PEV's – 2021 TYSP forecast of 2022 PEV's)/ 2021 TYSP forecast of 2022 PEV's = (1,065 – 622)/622 = 71.2 Percent

From:	Patti Zellner
To:	"landsg@jea.com"
Cc:	"fiscml@jea.com"; "BrowRN@JEA.com"; Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to JEA
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June 8, 2022

Dear Ms. Landaepa Gutierrez,
Attached is Staff's Data Request #3 to JEA (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

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Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

Staff's Data Request #3 to JEA

1. Please refer to JEA's 2021 TYSP, Schedules 2.1 and 2.2, and JEA's 2022 TYSP, Schedules 2.1 and 2.2. It appears that JEA reported its actual historical data of Industrial Sales and Total Sales to Ultimate Customers differently in these two TYSPs, as shown in Table 1 below. Please explain and provide a reconciliation, if necessary.

Table 1: Comparison of JEA's Reported History of Energy Consumptions

Source:	JEA's 4-21-21 revised 2021 TYSP, page 23	JEA's 4-12-22 revised 2022 TYSP, page 22	Reporting Difference	JEA's 4-21-21 revised 2021 TYSP, page 24	JEA's 4-12-22 revised 2022 TYSP, page 23	Reporting Difference
	Schedule 2.1			Schedule 2.2		
	column (7)	column (7)		column (12)	column (13)	
	Industrial Sales			Total Sales to Ultimate Customers		
Year	GWH	GWH	GWH	GWH	GWH	GWH
2011	2,682			11,968		
2012	2,598	2,809	211	11,452	11,663	211
2013	2,589	2,804	215	11,340	11,556	215
2014	2,564	2,785	221	11,713	11,934	221
2015	2,579	2,806	227	11,864	12,091	227
2016	2,457	2,692	235	11,949	12,184	235
2017	2,532	2,777	244	11,805	12,050	244
2018	2,524	2,765	241	12,085	12,326	241
2019	2,733	2,733	0	12,328	12,328	0
2020	2,698	2,698	0	12,319	12,319	0
2021		2,612			12,066	

2. Please refer to JEA's 2021 TYSP, Schedule 2.2, and JEA's 2022 TYSP, Schedule 2.2. It appears that certain years' historical data of Resales, Utility Use & Losses, and Total Number of Customers are presented differently in JEA's 2021 and 2022 TYSPs as shown in Table 2 below. Please explain and provide a reconciliation, if necessary.

Table 2: Comparison of JEA's Reported History of Energy Consumptions and Number of Customers

Source:	4-21-21 revised 2021 TYSP, p. 24	4-12-22 revised 2022 TYSP, p. 23	Reporting Difference	4-21-21 revised 2021 TYSP, p. 24	4-12-22 revised 2022 TYSP, p. 23	Reporting Difference	4-21-21 revised 2021 TYSP, p. 24	4-12-22 revised 2022 TYSP, p. 23	Reporting Difference
	Schedule 2.2			Schedule 2.2			Schedule 2.2		
	column (13)	column (14)		column (14)	column (15)		column (17)	column (18)	
	Sales For Resale			Utility Use & Losses			Total Number of Customers		
Year	GWH	GWH	GWH	GWH	GWH	GWH			GWH
2011	589			424			415,468		
2012	585	423	-162	374	325	-49	416,583	419,777	3,193
2013	395	395	0	550	335	-215	419,777	425,238	5,462
2014	472	472	0	473	252	-221	425,238	433,578	8,340
2015	392	392	0	612	385	-227	433,578	442,249	8,672
2016	490	490	0	498	263	-235	442,249	450,033	7,783
2017	288	288	0	578	334	-244	450,032	456,981	6,948
2018	82	82	0	646	405	-241	456,981	464,793	7,813
2019	58	58	0	411	411	0	464,793	474,178	9,385
2020	7	7	0	414	414	0	483,471	483,471	0
2021		25			449			493,039	

3. Please cite and identify any sources that support JEA's PEV forecast methodology.

4. Please refer to JEA Response to Staff's First Data Request, No. 19 (JEA's **2021** TYSP) and JEA Response to Staff's First Data Request, No. 20 (JEA's **2022** TYSP). Comparing JEA's 2021 and 2022 TYSP's, the Company has increased its PEV forecast for 2022 by 52.7 percent (see charts/calculations below). Please identify the major drivers/factors in JEA's PEV forecasting models that have contributed to this significant increase.

JEA's 2021 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)
2021	2335	97		1.805	0.319	9
2022	2764	110		2.266	0.400	11
2023	3297	125		2.839	0.501	13
2024	3924	141		3.513	0.620	17
2025	4642	159		12.292	0.757	20
2026	5450	178		14.791	0.911	24
2027	6351	199		17.586	1.083	29
2028	7366	222		20.735	1.277	34
2029	8502	247		24.267	1.494	40
2030	9766	275		28.201	1.736	46
Notes						
(Include Notes Here)						

JEA's 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						

Year-over-year forecast variance:
(2022 TYSP forecast of 2022 PEV's – 2021 TYSP forecast of 2022 PEV's)/ 2021 TYSP forecast of 2022 PEV's = (4,220 – 2,764)/2,764 = 52.7 Percent

5. Please explain why JEA is projecting lower summer demand growth associated with PEVs over the planning period in its 2022 TYSP compared to its 2021 TYSP despite projecting a significant increase in the growth rate of the number of PEV's operating in the Company's service territory.

From:	Patti Zellner
To:	"Cindy.Clemmons@LakelandElectric.com"
Cc:	"Shankar.Karki@lakelandelectric.com"; Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to Lakeland Electric
Date:	Wednesday, June 08, 2022 1:15:53 PM
Attachments:	DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to Lakeland.pdf DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to Lakeland.docx

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June 8, 2022

Dear Ms. Clemmons,
Attached is Staff's Data Request #3 to Lakeland Electric (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

1. Please email your responses to Donald Phillips by **Wednesday, June 29, 2022**.
    a. Please submit all **narrative** and any **non-narrative** (if applicable) 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 and combine the 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, June 29, 2022**.
    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. 20220000-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 Donald Phillips.

Donald Phillips
Office: (850) 413-6974
Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

Staff's Data Request #3 to Lakeland

1. Please refer to Lakeland Electric's (LAK) respective 2021 and 2022 TYSPs, Table 8-3, Schedule 2.2, column (8), Total Sales to Ultimate Customers, and Table 8-4, Schedule 2.3, column (6), Total No. of Customers. As indicated in Figure 1 below, over the 2021 TYSP forecast horizon, LAK's projected average annual growth rate (AAGR) of Total Number of Customers and Total Sales to Ultimate Customers is 1.10 percent and 0.68 percent, respectively. Over the 2022 TYSP forecast horizon, LAK's projected an AAGR of Total Number of Customers and Total Sales to Ultimate Customers is 1.14 percent and 0.92 percent, respectively. Please explain the reasons or causes for the higher 2022 TYSP projected 10-year AAGR of Total Sales to Ultimate Customers, compared to what was projected in the 2021 TYSP.

Figure 1: Comparison of Lakeland's Projected Energy Consumptions and Customer Numbers

Source:	Schedule 2.2, column (8) Total Sales to Ultimate Customers				Schedule 2.3, column (6) Total No. of Customers			
	2021 TYSP		2022 TYSP		2021 TYSP		2022 TYSP	
Year	GWH	Annual Growth (%)	GWH	Annual Growth (%)	No. of Customers	Annual Growth (%)	No. of Customers	Annual Growth (%)
2021	3,086				135,164			
2022	3,109	0.75%	3,154		136,824	1.23%	137,691	
2023	3,128	0.61%	3,180	0.82%	138,475	1.21%	139,313	1.18%
2024	3,149	0.67%	3,208	0.88%	140,078	1.16%	140,952	1.18%
2025	3,170	0.67%	3,236	0.87%	141,671	1.14%	142,641	1.20%
2026	3,189	0.60%	3,263	0.83%	143,237	1.11%	144,334	1.19%
2027	3,209	0.63%	3,293	0.92%	144,765	1.07%	146,002	1.16%
2028	3,235	0.81%	3,325	0.97%	146,257	1.03%	147,650	1.13%
2029	3,261	0.80%	3,360	1.05%	147,731	1.01%	149,289	1.11%
2030	3,280	0.58%	3,391	0.92%	149,195	0.99%	150,896	1.08%
2031			3,425	1.00%			152,431	1.02%
Average Annual Growth Rate (AAGR):								
2021-2030		0.68%				1.10%		
2022-2031				0.92%				1.14%

2. Please cite and identify any sources that support LAK's PEV forecast methodology.

3. In LAK's 2022 TYSP, the PEV forecast includes only information for 2022. Does LAK have plans to expand its PEV forecast to included additional years other than the current year, for future TYSP reporting?

4. Please refer to LAK's Response to Staff's First Data Request, No. 27. The Company states, "Without the states Infrastructure Plan Development, growth would be slower than 3% share of sales growth rate noticed by SACE and Atlas public policy's recent report." Please elaborate on how the Company arrived at this conclusion.

From:	Patti Zellner
To:	"BradKushner@nFrontConsulting.com"
Cc:	Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to Orlando Utilities Commission
Date:	Wednesday, June 08, 2022 1:16:10 PM
Attachments:	DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to OUC.pdf DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to OUC.docx

June 8, 2022

Dear Mr. Kushner,
Attached is Staff's Data Request #3 to Orlando Utilities Commission (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

1. Please email your responses to Donald Phillips by **Wednesday, June 29, 2022**.
    a. Please submit all **narrative** and any **non-narrative** (if applicable) 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 and combine the 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, June 29, 2022**.
    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. 20220000-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 Donald Phillips.

Donald Phillips
Office: (850) 413-6974
Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

1. Please refer to OUC's 2022 TYSP, Schedules 2.2 and 2.3, History and Forecast of Energy Consumption and Number of Customers. Table 1 and Figure 1 below indicate that OUC has forecasted that while its customer number will increase steadily through the forecast horizon, the growth of its retail sales will experience a reduction in 2024 then significantly increase again in 2025. Please explain the reason or cause for this projection.

Table 1: OUC's History and Forecast of Energy Consumption and Number of Customers

Data Source:	Schedule 2.2, column (8) Total Sales to Ultimate Customers			Schedule 2.3, column (6) Total No. of Customers		
Year	GWH	Annual Increased		No.	Annual Increased	
		GWH	(%)		No.	(%)
2012	5,916			213,325		
2013	6,025	109	1.84%	214,758	1,433	0.67%
2014	6,191	166	2.76%	219,272	4,514	2.10%
2015	6,537	346	5.59%	225,104	5,832	2.66%
2016	6,601	64	0.98%	231,226	6,122	2.72%
2017	6,568	-33	-0.50%	237,121	5,895	2.55%
2018	6,769	201	3.06%	241,628	4,507	1.90%
2019	6,823	54	0.79%	247,443	5,815	2.41%
2020	6,740	-83	-1.22%	253,448	6,005	2.43%
2021	6,807	67	1.00%	261,045	7,597	3.00%
2022	6,892	85	1.25%	268,141	7,096	2.72%
2023	7,007	115	1.67%	274,174	6,033	2.25%
2024	***7,101***	***94***	***1.34%***	280,247	6,073	2.22%
2025	***7,356***	***255***	***3.59%***	286,494	6,247	2.23%
2026	7,492	136	1.85%	292,969	6,475	2.26%
2027	7,632	140	1.87%	299,390	6,421	2.19%
2028	7,776	144	1.89%	305,780	6,390	2.13%
2029	7,925	149	1.92%	312,223	6,443	2.11%
2030	8,055	130	1.65%	318,756	6,533	2.09%
2031	8,195	140	1.74%	325,275	6,519	2.05%

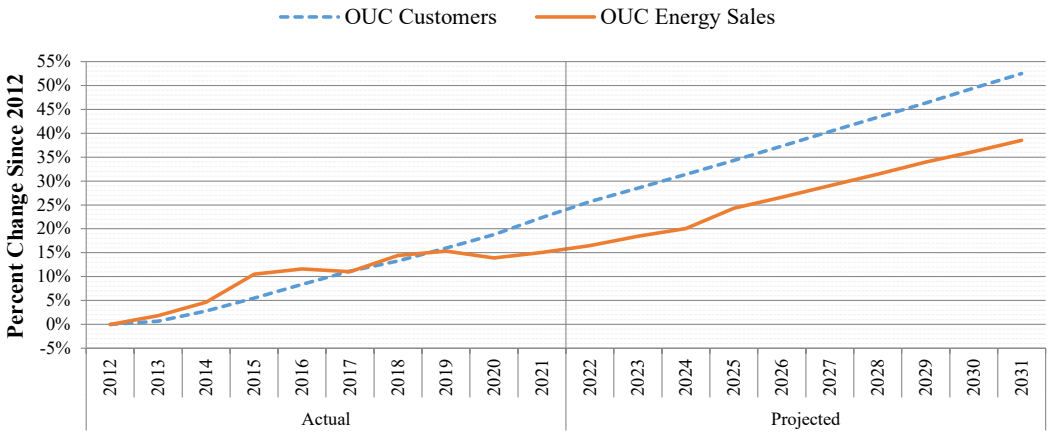

Figure 1: OUC's Growth in Customers and Retail Sales

2. Please cite and identify any sources that support OUC's LDV's and HDV's electrification impact forecast methodology.

3. Does OUC have any plans to incorporate other PEV forecasts in future TYSP's, such as those requested in Question 20 of Staff's First Data Request?

From:	Patti Zellner
To:	"JDiazgranados@seminole-electric.com"; "jclay@seminole-electric.com"
Cc:	Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to Seminole Electric Cooperative, Inc.
Date:	Wednesday, June 08, 2022 1:16:28 PM
Attachments:	DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to SEC .pdf DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to SEC .docx

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June 8, 2022

Dear Ms. Diazgranados and Mr. Clay,
Attached is Staff's Data Request #3 to Seminole Electric Cooperative, Inc. (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

1. Please email your responses to Donald Phillips by **Wednesday, June 29, 2022**.
    a. Please submit all **narrative** and any **non-narrative** (if applicable) 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 and combine the 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, June 29, 2022**.
    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. 20220000-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 Donald Phillips.

Donald Phillips
Office: (850) 413-6974
Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

Staff's Data Request #3 to SEC

1. Please refer to SEC's 2022 TYSP, pages 9 – 10, Schedules 2.1 and 2.2, History and Forecast of Energy Consumption and Number of Customers by Customer Class, and Table 1 below.

Table 1: SEC's Projections of Retail Sales

Data Source:	Schedule 2.1 Residential			Schedule 2.2 Commercial			Schedule 2.2 Total Member Sales to Ultimate Customers		
Year	GWH	Annual Increased		GWH	Annual Increased		GWH	Annual Increased	
		GWH	(%)		GWH	(%)		GWH	(%)
2021	10,115			4,662			14,930		
2022	***10,004***	***-111***	***-1.10%***	4,825	163	3.50%	14,949	19	0.13%
2023	***10,086***	***82***	***0.82%***	***5,047***	***222***	***4.60%***	***15,253***	***304***	***2.03%***
2024	10,162	76	0.75%	5,161	114	2.26%	15,444	191	1.25%
2025	10,216	54	0.53%	5,262	101	1.96%	15,599	155	1.00%
2026	10,289	73	0.71%	5,324	62	1.18%	15,735	136	0.87%
2027	10,390	101	0.98%	5,402	78	1.47%	15,915	180	1.14%
2028	10,491	101	0.97%	5,464	62	1.15%	16,078	163	1.02%
2029	10,594	103	0.98%	5,490	26	0.48%	16,208	130	0.81%
2030	10,680	86	0.81%	5,544	54	0.98%	16,348	140	0.86%
2031	10,765	85	0.80%	5,594	50	0.90%	16,484	136	0.83%

   a. Please explain the reasons or causes for the significant decrease in residential class energy sales in 2022.
   b. Please explain the reasons or causes for the significant growth of commercial class energy sales in 2023.

From:	Patti Zellner
To:	"Paul.Clark@talgov.com"
Cc:	Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to City of Tallahassee Utilities
Date:	Wednesday, June 08, 2022 1:16:44 PM
Attachments:	DN 20220000-OT (undocketed filings for 2022) TYSP-Staff"s Data Request #3 to Tal .pdf DN 20220000-OT (undocketed filings for 2022) TYSP-Staff"s Data Request #3 to Tal .docx

June 8, 2022

Dear Mr. Clark,
Attached is Staff's Data Request #3 to City of Tallahassee Utilities (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

1. Please email your responses to Donald Phillips by **Wednesday, June 29, 2022**.
    a. Please submit all **narrative** and any **non-narrative** (if applicable) 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 and combine the 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, June 29, 2022**.
    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. 20220000-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 Donald Phillips.

Donald Phillips
Office: (850) 413-6974
Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

1. Please refer to TAL's 2022 TYSP, pages 16 – 17, and Table 1. Compared to all the other years in forecasting horizon, 2022 shows a significant projected growth in energy sales, please explain the reason or cause behind.

Table 1: TAL's Projections of Retail Sales

Data Source:	Schedule 2.1 Rural & Residential			Schedule 2.2 Commercial			Schedule 2.2 Total Sales to Ultimate Customers		
Year	GWH	Annual Increased GWH	Annual Increased (%)	GWH	Annual Increased GWH	Annual Increased (%)	GWH	Annual Increased GWH	Annual Increased (%)
2021	1,139			1,426			2,590		
2022	***1,175***	***36***	***3.16%***	***1,520***	***94***	***6.59%***	***2,720***	***130***	***5.02%***
2023	*1,176*	*1*	*0.09%*	*1,568*	*48*	*3.16%*	*2,769*	*49*	*1.80%*
2024	1,178	2	0.17%	1,593	25	1.59%	2,796	27	0.98%
2025	1,179	1	0.08%	1,607	14	0.88%	2,811	15	0.54%
2026	1,179	0	0.00%	1,616	9	0.56%	2,820	9	0.32%
2027	1,179	0	0.00%	1,625	9	0.56%	2,829	9	0.32%
2028	1,179	0	0.00%	1,633	8	0.49%	2,837	8	0.28%
2029	1,182	3	0.25%	1,641	8	0.49%	2,848	11	0.39%
2030	1,187	5	0.42%	1,649	8	0.49%	2,861	13	0.46%
2031	1,192	5	0.42%	1,654	5	0.30%	2,871	10	0.35%

2. Please refer to TAL's Response to Staff's First Data Request, No. 19. Please generally describe the methodology for how TAL utilizes the listed data sources to arrive at the PEV forecast presented in its 2022 TYSP.

3. Please cite and identify any sources that support TAL's PEV forecast methodology.

4. Please refer to TAL's Response to Staff's First Data Request, No. 19 (TAL's 2021 TYSP) and TAL's Response to Staff's First Data Request No. 20 (TAL's 2022 TYSP). Comparing TAL's 2021 and 2022 TYSP's, the Company has increased its PEV forecast for 2030 by 237.8 percent (see charts/calculations below). Please identify and explain the major drivers/factors in TAL's PEV forecasting models that have contributed to this significant increase.

TAL's 2021 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations[1]	Number of Public DCFC PEV Charging Stations.	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2021	1,420	34	2	NA[2]		
2022	1,435	34	4			
2023	1,449	34	4			
2024	1,463	34	6			
2025	1,478	38	6			
2026	1,493	38	6			
2027	1,508	38	8			
2028	1,524	40	8			
2029	1,600	40	10			
2030	1,616	40	15			

Notes

[1] Public PEV Charging Station count includes hotels that provide charging for registered guests, automobile dealers that offer charging for specific makes/models and public spaces such as Leon County Library and the Tallahassee International Airport, etc.

[2] Due to the low expected penetration of EVs within the service area, TAL has not performed any formal analysis of the impact of PEVs or PEV charging stations on system load and energy requirements.

TAL's 2022 TYSP

Year	Number of PEVs	Number of Public PEV Charging Stations[1]	Number of Public DCFC PEV Charging Stations[2]	Cumulative Impact of PEVs		
				Summer Demand	Winter Demand	Annual Energy
				(MW)	(MW)	(GWh)
2022	1,158	88	4	0.75	0.44	3.50
2023	1,469	90	6	0.95	0.55	4.46
2024	1,832	92	8	1.19	0.69	5.58
2025	2,253	94	8	1.46	0.85	6.89
2026	2,736	96	12	1.77	1.03	8.40
2027	3,288	98	12	2.13	1.24	10.13
2028	3,921	100	15	2.54	1.48	12.11
2029	4,640	103	15	3.00	1.75	14.38
2030	5,459	106	18	3.53	2.05	16.97
2031	6,378	109	18	4.13	2.40	19.88

Notes

[1] Public PEV Charging Station count includes hotels that provide charging for registered guests, automobile dealers that offer charging for specific makes/models and public spaces such as Leon County Library and the Tallahassee International Airport, etc. Reporting number of stations, not charging ports, which would be higher.

[2] Reported number of charging stations is not the number of charging ports, which would be higher.

Year-over-year forecast variance:
(2022 TYSP forecast of 2030 PEV's – 2021 TYSP forecast of 2030 PEV's)/ 2021 TYSP forecast of 2030 PEV's = (5,459 – 1,616)/1,616 = 237.8 Percent

From:	Patti Zellner
To:	"MSirianni@tecoenergy.com"; "regdept@tecoenergy.com"
Cc:	"flbusot@tecoenergy.com"; "pkbrown@tecoenergy.com"; Donald Phillips; Phillip Ellis; Patti Zellner
Subject:	DN 20220000-OT (Undocketed filings for 2022) Ten-Year Site Plan Review - Staff"s Data Request #3 to Tampa Electric Company
Date:	Wednesday, June 08, 2022 1:17:00 PM
Attachments:	DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to TECO.pdf DN 20220000-OT (Undocketed filings for 2022) TYSP-Staff"s Data Request #3 to TECO.docx

June 8, 2022

Dear Ms. Sirianni,
Attached is Staff's Data Request #3 to Tampa Electric Company (in PDF and WORD format) for the Ten-Year Site Plan Review process. Please submit your responses to this data request to both the Florida Public Service Commission's (FPSC) Division of Engineering and the FPSC Office of Commission Clerk by following the instructions below:

Submission to the FPSC Division of Engineering

1. Please email your responses to Donald Phillips by **Wednesday, June 29, 2022**.
    a. Please submit all **narrative** and any **non-narrative** (if applicable) 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 and combine the 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, June 29, 2022**.
    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. 20220000-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 Donald Phillips.

Donald Phillips
Office: (850) 413-6974
Email: DPhillip@psc.state.fl.us

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

Enclosure

cc: Office of Commission Clerk (20220000-OT – Undocketed filings for 2022)

Staff's Data Request #3 to TECO

1. Page 40 of TECO's 2022 Ten Year Site Plan (TYSP), Schedule 3.1, History and Forecast of Summer Peak Demand (MW), reflects 5 MWs of summer peak demand reductions for Residential Conservation in 2021 (the 2021 value for Column 7 [174] less the 2020 value for Column 7 [169]), and no reductions for Residential Load Management. In TECO's Demand Side Management Annual Report for 2021, dated April 14, 2022 (a/k/a "FEECA filing"), Page 1, the Company reported that it achieved 6.4 MWs of residential summer peak demand reductions in 2021. Please explain the variance between the amount of residential summer peak demand reduction reported in Schedule 3.1 for 2021, compared to the amount reflected the FEECA filing.

2. Page 46 of TECO's 2022 Ten Year Site Plan (TYSP), Schedule 3.3, History and Forecast of Annual Net Energy for Load (GWh), reflects 12 GWhs of reductions for Residential Conservation in 2021 (the 2021 value for Column 3 [656 GWhs] less the 2020 value for Column 3 [644 GWhs]). In TECO's Demand Side Management Annual Report for 2021, dated April 14, 2022 (a/k/a "FEECA filing"), Page 1, the Company reported that it achieved 16.4 GWhs of reductions in 2021. Please explain the variance between the amounts of residential reduction reported in in Schedule 3.3 for 2021, compared to the amount reflected the FEECA filing.

3. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Summer Peak Demand Goals – Residential (MW)*	Residential Load Management and Conservation (MW)**
2022	3.0	14 (2022 value for Column 6 minus the 2021 value for Column 6 [1] + 2022 value for Column 7 minus the 2021 value for Column 7 [13])
2023	2.9	14 (2023 value for Column 6 minus the 2022 value for Column 6 [3] + 2023 value for Column 7 minus the 2022 value for Column 7 [11])
2024	2.5	15 (2024 value for Column 6 minus the 2023 value for Column 6 [4] + 2024 value for Column 7 minus the 2023 value for Column 7 [11])
*Summer Peak Demand Goals (Residential) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **TECO 2022 TYSP Base Case, Schedule 3.1, History and Forecast of Summer Peak Demand, Page 40, Columns (6) and (7).		

4. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Winter Peak Demand Goals – Residential (MW)*	Residential Load Management and Conservation (MW)**
2022	7.4	10 (2022 value for Column 6 minus the 2021 value for Column 6 [0] + 2022 value for Column 7 minus the 2021 value for Column 7 [10])
2023	6.8	12 (2023 value for Column 6 minus the 2022 value for Column 6 [2] + 2023 value for Column 7 minus the 2022 value for Column 7 [10])
2024	6.1	14 (2024 value for Column 6 minus the 2023 value for Column 6 [4] + 2024 value for Column 7 minus the 2023 value for Column 7 [10])
*Winter Peak Demand Goals (Residential) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **TECO 2022 TYSP Base Case, Schedule 3.1, History and Forecast of Winter Peak Demand, Page 43, Columns (6) and (7).		

5. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Summer Peak Demand Goals - Commercial/ Industrial (MW)	Commercial/Industrial Load Management and Conservation (MW)
2022	3.3	16 (2022 value for Column 8 minus the 2021 value for Column 8 [8] + 2022 value for Column 9 minus the 2021 value for Column 9 [8])
2023	3.5	6 (2023 value for Column 8 minus the 2022 value for Column 8 [0] + 2023 value for Column 9 minus the 2022 value for Column 9 [6])
2024	3.2	6 (2024 value for Column 8 minus the 2023 value for Column 8 [0] + 2024 value for Column 9 minus the 2023 value for Column 9 [6])
*Summer Peak Demand Goals (Commercial/Industrial) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **TECO 2022 TYSP Base Case, Schedule 3.1, History and Forecast of Summer Peak Demand, Page 40, Columns (8) and (9).		

6. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Winter Peak Demand Goals – Commercial/Industrial (MW)*	Commercial/Industrial Load Management and Conservation (MW)
2022	1.9	11 (2022 value for Column 8 minus the 2021 value for Column 8 [5] + 2022 value for Column 9 minus the 2021 value for Column 9 [6])
2023	1.8	5 (2023 value for Column 8 minus the 2022 value for Column 8 [0] + 2023 value for Column 9 minus the 2022 value for Column 9 [5])
2024	1.7	6 (2024 value for Column 8 minus the 2023 value for Column 8 [1] + 2024 value for Column 9 minus the 2023 value for Column 9 [5])
*Winter Peak Demand Goals (Commercial/Industrial) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order") **TECO 2022 TYSP Base Case, Schedule 3.1, History and Forecast of Winter Peak Demand, Page 43, Columns (8) and (9).		

7. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Annual Energy Conservation Goals - Residential (GWh)*	Residential Conservation (GWh)**
2022	6.9	30 (2022 value for Column 3 minus the 2021 value for Column 3)
2023	6.3	27 (2023 value for Column 3 minus the 2022 value for Column 3)
2024	5.5	27 (2024 value for Column 3 minus the 2023 value for Column 3)
*Annual Energy Conservation Goals (Residential) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **TECO 2022 TYSP Base Case, Schedule 3.3, History and Forecast of Annual Net Energy for Load, Page 46, Column (3).		

8. For the purpose of this question, please review the following table. For each time period presented in the table, please explain the variance between the values presented in the Goals Order (as shown in Column 2) and the TYSP values shown in Column 3.

(1)	(2)	(3)
Year	Annual Energy Conservation Goals - Commercial/Industrial (GWh)*	Commercial/Industrial Conservation (GWh)**
2022	10.2	35 (2022 value for Column 4 minus the 2021 value for Column 4)
2023	9.9	29 (2023 value for Column 4 minus the 2022 value for Column 4)
2024	9.6	29 (2024 value for Column 4 minus the 2023 value for Column 4)
*Annual Energy Conservation Goals (Commercial/Industrial) appear on Page 18, in Order No. PSC-2019-0509-FOF-EG ("Goals Order"). **TECO 2022 TYSP Base Case, Schedule 3.3, History and Forecast of Annual Net Energy for Load, Page 46, Column (4).		

9. Please refer to TECO's 2021 TYSP, pages 36 and 39, TECO's 2022 TYSP, pages 34 and 37, and Table 1 below for the following questions:

Table 1: TECO's Projections of Retail Sales and Total Number of Customers

Year	Schedule 2.2. Base Case, column (8) Total Sales to Ultimate Customers				Schedule 2.3, Base Case, column (6) Total No. of Customers			
	2021 TYSP, page 36		2022 TYSP, page 34		2021 TYSP, page 39		2022 TYSP, page 37	
	GWH	Annual Growth (%)	GWH	Annual Growth (%)	No. of Customers	Annual Growth (%)	No. of Customers	Annual Growth (%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2020	19,954		19,954		786,047		786,047	
2021	19,553	-2.01%	20,093	0.70%	798,579	1.59%	802,050	2.04%
2022	19,776	1.14%	***19,812***	***-1.40%***	811,592	1.63%	***815,178***	***1.64%***
2023	19,980	1.03%	19,965	0.77%	824,116	1.54%	828,917	1.69%
2024	20,131	0.76%	20,109	0.72%	836,133	1.46%	842,136	1.59%
2025	20,292	0.80%	20,233	0.62%	847,627	1.37%	854,689	1.49%
2026	20,446	0.76%	20,345	0.55%	858,412	1.27%	866,163	1.34%
2027	20,607	0.79%	20,450	0.51%	868,773	1.21%	876,988	1.25%
2028	20,788	0.88%	20,564	0.56%	878,751	1.15%	887,484	1.20%
2029	20,973	0.89%	20,687	0.60%	888,371	1.09%	897,725	1.15%
2030	21,141	0.80%	20,800	0.55%	897,545	1.03%	907,615	1.10%
2031			20,905				916,948	1.03%
Average Annual Growth Rate (AAGR):								
2021-2030		0.87%				1.31%		
2022-2031				0.60%				1.32%
Sources of Data: TECO's 2021 TYSP, pages 36 and 39; and TECO's 2022 TYSP, pages 34 and 37.								

a. Referring to Table 1, columns (1), (2), (7) and (8), please explain the reasons or causes for the projected 2022 decreases in retail sales given the projected increase in customer numbers for the same year.
b. As indicated in Table 1, over the 2021 TYSP forecast horizon, TECO's projected average annual growth rate (AAGR) of Total Number of Customers and Total Sales to Ultimate Customers is 1.31 percent and 0.87 percent, respectively. Over the 2022 TYSP forecast horizon, TECO's projected AAGR of Total Number of Customers and Total Sales to Ultimate Customers is 1.32 percent and 0.60 percent, respectively. Please explain why, in the 2022 TYSP, the Company projected 10-year AAGR of Total Number of Customers is similar to that which was projected in the 2021 TYSP, but the 10-year AAGR of Total Sales to Ultimate Customers is much lower than that was projected in the 2021 TYSP.

10. Please refer to TECO's Response to Staff's First Data Request, No. 19 for the following questions:

a. Please identify the "independent third-party analyst" referenced in this response.
b. Please cite and identify any sources that support TECO's PEV forecast methodology.

11. Please refer to staff's First Data Request No. 19 (TECO's 2021 TYSP) and Staff's First Data Request No. 20 (TECO's 2022 TYSP). Comparing TECO's 2021 and 2022 TYSP's, the Company has increased its PEV forecast for 2022 by 56.3 percent (see charts/calculations below). Please identify the major drivers/factors in TECO's PEV forecasting models that have contributed to this significant increase.

TECO's 2021 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)
2021	6,530	386	72	16.2	6.6	27.6
2022	7,815	433	80	18.9	7.8	32.9
2023	9,321	479	89	22.0	9.1	39.2
2024	11,052	525	97	25.3	10.6	46.4
2025	13,049	571	106	29.1	12.3	54.6
2026	15,183	617	115	33.1	14.2	63.5
2027	17,456	663	123	37.3	16.1	72.9
2028	19,869	710	132	41.7	18.1	82.8
2029	22,425	756	140	46.3	20.2	93.4
2030	25,125	802	140	51.1	22.5	104.5

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, 2021.

TECO's 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.

Year-over-year 2022 forecast variance:
(2022 TYSP forecast of 2022 PEV's – 2021 TYSP forecast of 2022 PEV's)/ 2021 TYSP forecast of 2022 PEV's = (12,218 – 7,815)/7,815 = 56.3 Percent