



June 29, 2022

Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850
Attn: Adam Teitzman

Re: 2022 Ten Year Site Plan – Staff’s Data Request #3

Dear Mr. Teitzman,

Pursuant to Section 186.801, Florida Statutes and Rules 25-22.070-072 of Florida Administrative Code, Lakeland Electric submits its responses to Staff’s Data Request #3 in relation to Lakeland Electric’s 2022 Ten Year Site Plan via the Commissions electronic platform.

If you have questions please contact me at 863-834-6595.

Sincerely,

/s/Cynthia Clemmons

Cynthia Clemmons
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Manager of Legislative and Regulatory Relations
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Enclosure

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)				Schedule 2.3, column (6)			
	Total Sales to Ultimate Customers				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%

LAK uses the Itron SAE methodology to generate its forecast, as described in detail in the Ten-Year Site plans in question. There are multiple reasons for higher forecasted sales.

Higher Customer Growth Rate

In regard to Total Customers, we use regression models which rely on Moody’s Economy.com economic forecasts – namely Lakeland Winter Haven MSA household projections. The total customer growth increased based on a more optimistic forecast provided by Moody’s for our 2022 regression models vs the 2021 regression models.

Higher Growth Rate in the Sales History

In regard to Total Sales, we use regression models for our Residential, Commercial and Small Industrial Customers. The regression models typically rely on 10 years of history. Please refer to table below. If you look at the historical growth rate from 2011 that was used in the 2021 TYSP and was taken off the 2022 TYSP, you see that it is a negative value (-3.44%). In contrast, the historical growth rate that was added for the 2022 TYSP is a positive number (1.52%).

As can be seen, the historical AAGRs are significantly different.

Calendar Year	Sales (GWh)					
2010	2,966					
2011	2,864	-3.44%		2,864		
2012	2,751	-3.94%		2,751	-3.94%	
2013	2,831	2.91%		2,831	2.91%	
2014	2,903	2.55%		2,903	2.55%	
2015	3,034	4.50%		3,034	4.50%	
2016	3,030	-0.14%		3,030	-0.14%	
2017	3,018	-0.41%		3,018	-0.41%	
2018	3,118	3.34%		3,118	3.34%	
2019	3,117	-0.06%		3,117	-0.06%	
2020				3,164	1.52%	
Average Annual Growth Rate (AAGR)						
2010-2019		.59%				
2011-2020					1.14%	

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

Initially, Lakeland estimated that the penetration of PEVs is so small that it will have a minor impact on peak load increase in summer and winter. It was believed that the demand increases due to PEVs less than 0.1%. This came to be true when we analyzed later for MW impact from existing PEVs during summer and winter peak load hours. The rate of Electric Vehicle (EV) adoption is a key for developing forecast methodology as Lakeland has actual PEV numbers for the initial year of study. We used the same PEV adoption rate as the State of Florida for Lakeland's territory as determined in the study from the Florida Department of Agriculture and Consumer Services on “Florida Electric Vehicle Roadmap – Executive Report 2020”. Florida’s total PEV (light duty) projected sales is about 121,500 in 2030 compared to 57,000 actuals in 2019. We used the same PEV adoption rate in the future for Lakeland from year 2022 to 2031.

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?

Though the penetration rates of PEVs in Lakeland’s territory is not significant at this moment, Lakeland is interested to see if the impact is significant by the end of 2022 planning period. In that aspect, Lakeland will investigate expanding the PEV forecast for TYSP reporting in 2023 and after. The following is the PEVs forecast using Electric Vehicle Infrastructure Projection Tool (EVI-Pro) developed by the National Renewable Energy Laboratory (NREL) through a collaboration effort with the California Energy Commission (CEC) and the U.S. Department of Energy's Vehicle Technologies Office. This tool gives a simple method to estimate the consumer

demand for electric vehicle charging infrastructure that is needed and finds out how it affects the charging load profile in the Electric Utility territory. EVI-Pro uses area specific personal vehicle travel patterns, and charging station characteristics in simulations to estimate the demand and type of charging infrastructure needed to support the area specific adoption of EVs. As can be seen from Table 1, below, the cumulative impact of PEV during peak load, the increase is still less than 0.1% in the year 2031 – the last year of TYSP 2022.

Table 1: Electric Vehicle Forecasts in Lakeland and Charging Infrastructure need

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	534	19	8	0.267	0.1068	1.828
2023	552	19	8	0.276	0.1104	1.890
2024	597	19	8	0.2985	0.1194	2.044
2025	647	22	8	0.3235	0.1294	2.215
2026	693	24	8	0.3465	0.1386	2.373
2027	728	25	8	0.364	0.1456	2.492
2028	763	28	8	0.3815	0.1526	2.612
2029	807	28	8	0.4035	0.1614	2.763
2030	869	30	8	0.4345	0.1738	2.975
2031	935	31	8	0.4675	0.187	3.201
Notes						
PEV impact MW are peak load impact on Lakeland Load.						

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,

As per EVI-Pro, there were 16,175,500 light-duty vehicles on the road in Florida as of the end of 2016 and 20,200 (0.12%) of those were plug-in electric vehicles. At present, Tampa Bay Times, in its May 19, 2022 Business news, reports that there are less than 1% of Electric vehicles out of 16.3 Million cars and pickups registered in Florida. Hence, even with the enactment of FL statute 339.287, the adoption rate is still less than 1%. As per Florida Electric Vehicle Roadmap Report 2020, this is because Florida still faces significant challenges to provide accelerating infrastructure needs. And, it will take a while to have a share of 3% by PEVs in Florida, the trend will be similar in Lakeland.