

Review of the 2022 Ten-Year Site Plans for Florida's Electric Utilities
Staff's Data Request #3 to JEA

June 27th, 2022

Commission Clerk

Public Service Commission

2540 Shumard Oak Blvd.

Tallahassee, FL 32399-0850

Commission Clerk:

On behalf of JEA, please accept the 2022 Ten-Year Site Plan – Staff's Data Request #3.

If you have any questions, please contact me by email at landsg@jea.com.

Sincerely,



Stephany Landaeta Gutierrez

Associate Engineer

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	

For this year’s reporting, JEA corrected the GWH numbers for Industrial customers to match what is reflected in JEA’s audited annual financial statements. Hence, the Total Sales to Ultimate Customers also changed as a result.

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.

Source:	4-21-21 revised	4-12-22 revised	Reporting Difference	4-21-21 revised	4-12-22 revised	Reporting Difference	4-21-21 revised	4-12-22 revised	Reporting Difference
	2021 TYSP, p. 24	2022 TYSP, p. 23		2021 TYSP, p. 24	2022 TYSP, p. 23		2021 TYSP, p. 24	2022 TYSP, p. 23	
	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	

For this year’s reporting, JEA corrected the Sales for Resale GWH numbers to match what is reflected in JEA’s audited annual financial statements. Hence, there was an update to the 2012 historical numbers as a result. The historical values for Utility Use and Losses reflect the changes in Sales for Resale and the changes discussed in question #1.

In 2021, JEA revised schedule 2.2 and corrected the numbers for the Total Number of Customers as the 2012 value was shifted one year down. This revised schedule was reported to the PSC, which is not the same as the one shown above. Once the revised schedule is reviewed, the Total Number of Customers should be the same for both the 2021 and 2022 TYSP. (Please find attached a copy of the Revised 2021 TYSP)

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

The PEV demand and energy forecasts are developed using the historical number of PEVs in Duval County obtained from Florida Department of Highway Safety and Motor Vehicles (DHSMV) and the historical number of vehicles in Duval County from the U.S. Census Bureau.

<https://www.flhsmv.gov/resources/driver-and-vehicle-reports/vehicle-and-vessel-reports-and-statistics/>

https://www.census.gov/programs-surveys/acs/news/data-releases/2018/release.html#par_textimage_copy

JEA forecasted the numbers of vehicles in Duval County using multiple regression analysis of historical and forecasted Duval Population, Median Household Income and Number of Households from Moody's Analytics. The forecasted number of PEVs is modeled using multiple regression analysis of the number of vehicles, disposable income from Moody's Analytics, the average motor gasoline price from the U.S. Energy Information Administration (EIA) Annual Energy Outlook (AEO), and JEA's electric rates.

<https://www.eia.gov/outlooks/aeo/data/browser/#/?id=12-AEO2022&sourcekey=0>

<https://www.eia.gov/outlooks/steo/realprices/>

- 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 PEV forecast is based on the historical trend on number of PEVs in JEA’s service territory. The 2021 actual number of PEVs is 35% higher than last year’s TYSP 2021 forecasted number of PEVs, hence, it resulted in JEA’s 2022 PEV forecast being higher as compared to the 2021 PEV forecast.

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.

JEA is using a new EV charging curve profile for this year’s PEV forecast. The new charging curve was provided by a third-party consultant that was based on research they did on one of their client’s customers’ charging behaviors. The new charging curve reflects a charging peak occurring much later into the evening as compared to JEA’s previous charging curve that reflects a charging peak occurring at the same time as JEA’s system peak. As a result of this change, JEA sees a lower growth in its summer peak demand for the 2022 TYSP reporting period.