



MEMORANDUM

Date:	January 23, 2020
To:	Council Member Randy DeFoor
From:	Kyle S. Billy, Council Auditor
Subject:	Future of JEA Workshop Meeting #3

Per your request, we have reviewed the JEA handout titled “Factors Leading to a New Strategic Plan”, which was presented by JEA’s then President and Chief Operating Officer Melissa Dykes and then Chief Financial Officer Ryan Wannemacher, at the Future of JEA Workshop held on December 9, 2019.

Something that was readily apparent about the handout was that JEA presented data in several different time periods or date ranges (e.g. 1999-2019, 2006-2018, 2006-2019, 2008-2018, and 2008-2019). The use of multiple time periods when presenting data can give the appearance that the presenter is choosing the time period that makes the best case for what the presenter is trying to show. In section 3 (Employee Count) of this memorandum, we will provide an example of how selecting different time periods can impact the results of the numbers presented.

While our review was not exhaustive, we have identified three areas of the presentation where we believe that the information presented by JEA did not tell the entire story.

1. **Decreases in Sales:** JEA stated that sales were 8.7% higher in 2006 vs. 2019. We found that much of the sales decrease was in sales to other utilities. Sales to residential customers decreased 2.40% and sales to commercial & industrial customers decreased 5.09% from 2006 to 2019.
2. **Base Rates and Fuel Rates:** JEA stated that it raised base rates 71% since 2006 and that falling fuel costs mitigated bill pressure. The 71% increase is not indicative of what happened to customers’ bills because it does not include other charges (e.g. fuel). We used the same methodology used in JEA’s annual report (which includes all revenue except for public service tax) to calculate the change in revenue per MWh sold for residential and commercial & industrial customer types. We found that from 2006 to 2018, residential customers experienced a 26.14% increase and commercial & industrial customers experienced a 27.16% increase.
3. **Employee Count:** JEA showed that electric employees were reduced from 1,768 in 2008 to 1,365 in 2019, a decrease of 403. JEA did not mention that the decrease was largely due to the closure of the St. Johns River Power Park (SJRPP) electric generating plant. We also noted that using 2005 to 2019 would have shown an increase in electric employees (SJRPP excluded).

We explain each of these three areas in detail in the pages that follow and provide supporting tables and charts.

1. Decreases in Sales

JEA's chart (Attachment A) clearly shows a drop from 13,440,900 MWh sales in 2006 to 12,366,395 MWh sales in 2019, while the number of customers increased. JEA used 2006 in its comparison, which was the year when JEA had its highest electric sales. We obtained a breakdown of sales by customer type (shown in our table of Territorial MWh Sales below) and noted that nearly half of the decrease in total MWh sales occurred in "Sales for Resale Territorial" (sales to other utilities). Further research revealed that this decrease in "Sales for Resale Territorial" was primarily due to the expiration of the Florida Public Utilities (FPU) contract. FPU had a contract to purchase electricity from JEA, originally dated January 29, 1996. The amended and restated contract ended on December 31, 2017. We also noted that Public Street Lighting sales decreased significantly, apparently due to the LED replacements that JEA made upon approval of the City of Jacksonville. JEA's presentation stated that "sales were 8.7% higher in 2006 vs. 2019 despite strong customer growth." Our chart below provides the customer type breakdown which shows that the residential sales decrease was 2.40% and the commercial & industrial sales decrease was 5.09%.

Comparison of Territorial MWh Sales from FY 2006 to FY 2019				
Customer Type	2006^a MWh Sold	2019^b MWh Sold	Change	% Change
Residential	5,650,986	5,515,428	-135,558	-2.40%
Commercial & Industrial	7,157,602	6,793,557	-364,045	-5.09%
Public Street Lighting	110,178	57,410	-52,768	-47.89%
Sales for Resale Territorial	522,134	0	-522,134	-100.00%
Total MWh Sold	13,440,900	12,366,395	-1,074,505	-7.99%

^a FY 2006 MWh sales figures are taken from JEA's 2006 annual report.

^b JEA's FY 2019 Annual Report has not been published as of the date of this memorandum. Therefore, these 2019 MWh sales figures are based on JEA's unaudited monthly financial statements for the period ended September 30, 2019.

Calculation of Percentages

In Attachment A, JEA stated that sales were 8.7% higher in 2006 vs. 2019. We show in our table above that sales decreased 7.99%. Which is correct, 8.7% or 7.99%? They are both mathematically correct. The percentage calculated depends on which way the assertion is made. If you say that 2006 had higher sales than 2019 and divide the difference by the 2019 sales number, you arrive at 8.7% higher as depicted by JEA. If you say that 2019 had lower sales than 2006 and divide the difference by the 2006 sales number, you arrive at a 7.99% decrease, as shown above. This is an example of how the numbers can be impacted by the way the information is presented.

2. Base Rates and Fuel Rates

JEA’s chart (Attachment B) states that “JEA raised base rates 71% since 2006.” The next page of JEA’s handout (Attachment C) states that “falling fuel costs have mitigated bill pressure since 2009.” JEA used base rate revenue for all customer types (residential, commercial & industrial, public street lighting, and sales for resale territorial) to arrive at the 71% increase. We were able to recalculate the 71% increase in base rates using JEA’s energy yield methodology (total base rate revenues divided by total territorial MWhs sold), however that is not indicative of what happened to customers’ bills since it did not include other charges on the bill such as fuel, conservation, and environmental charges. JEA reduced the fuel rate charged to customers, offsetting much of the base rate increase. Using the same methodology found in JEA’s annual report (which includes all revenue except for public service tax), we calculated the change in revenue per MWh sold for residential and commercial & industrial customer types. We found that from 2006 to 2018, residential customers experienced a 26.14% increase and commercial & industrial customers experienced a 27.16% increase.

Revenue Per MWh Sold for Residential and Commercial & Industrial							
Customer Type	FY 2006^a	FY 2009^b	FY 2012^b	FY 2015^b	FY 2018^b	2006-2018 Change	% Change
Residential	\$ 90.50	\$121.83	\$125.17	\$118.23	\$114.16	\$23.66	26.14%
Commercial & Industrial	\$ 68.22	\$ 99.02	\$100.59	\$ 92.72	\$ 86.75	\$18.53	27.16%

^a Per JEA’s FY 2015 Annual Report, which does not include public service tax

^b Per JEA’s FY 2018 Annual Report, which does not include public service tax

3. Employee Count

JEA’s chart (Attachment D) states that “JEA reduced electric employee count 23% as electric customers grew 15%.” It shows that electric employees were reduced from 1,768 in 2008 to 1,365 in 2019 (a decrease of 403). JEA should not have had 1,768 electric employees in 2008 because the Budget Ordinance capped JEA’s electric employees at 1,545 in FY 2008. When we asked about this discrepancy, we were informed that JEA was including SJRPP employees as though they were JEA employees. However, SJRPP employees were not JEA employees, which is why they were not included in the annual budget ordinance approved by City Council. Per JEA, SJRPP had 291 authorized employees in 2008. In 2019, there were no SJRPP employees because the SJRPP generation plant had been shut down and was being demolished. JEA’s chart makes it seem as though the number of electric system employees decreased by 403 from 2008 to 2019. When the SJRPP employees are excluded (as they should be), the number of electric system employees actually decreased by 112, as seen in our table below.

Comparison of JEA Electric Employees (As Provided by JEA) and Actual Employees 2008-2019				
Type of Employee	2008	2019	Change	% Change
Electric Employees Presented by JEA	1,768	1,365	-403	-22.79%
Less: SJRPP Employees (Not JEA Employees)	291	0	-291	-100.00%
Actual Number of JEA Electric Employees	1,477	1,365	-112	-7.58%

If JEA had used 2006 instead of 2008, the number of electric system employees decreased by 41 after deducting the SJRPP employees, as seen in the table below.

Comparison of JEA Electric Employees (As Provided by JEA) and Actual Employees 2006-2019				
Type of Employee	2006	2019	Change	% Change
Electric Employees Presented by JEA	1,686	1,365	-321	-19.04%
Less: SJRPP Employees (Not JEA Employees)	280	0	-280	-100.00%
Actual Number of JEA Electric Employees	1,406	1,365	-41	-2.92%

If JEA had used 2005 for the comparison, the number of electric system employees increased by 25 after deducting the SJRPP employees, as seen in the table below.

Comparison of JEA Electric Employees (As Provided by JEA) and Actual Employees 2005-2019				
Type of Employee	2005	2019	Change	% Change
Electric Employees Presented by JEA	1,633	1,365	-268	-16.41%
Less: SJRPP Employees (Not JEA Employees)	293	0	-293	-100.00%
Actual Number of JEA Electric Employees	1,340	1,365	25	1.87%

JEA’s presentation focused on the number of electric employees from 2008 to 2019 and did not mention that the number of water employees increased by 103 during the same time period. We prepared the table below (excluding SJRPP employees) to show all JEA electric, water, and district energy employees in 2008 and 2019. The total number of JEA employees decreased by 9 from 2008 to 2019.

Comparison of Actual JEA Employees (All Systems, As Provided by JEA) 2008-2019				
Type of Employee	2008	2019	Change	% Change
Electric Employees	1,477	1,365	-112	-7.58%
Water Employees	502	605	103	20.52%
District Energy Employees	5	5	0	0.00%
Actual Number of JEA Employees	1,984	1,975	-9	-0.45%

Attachments:

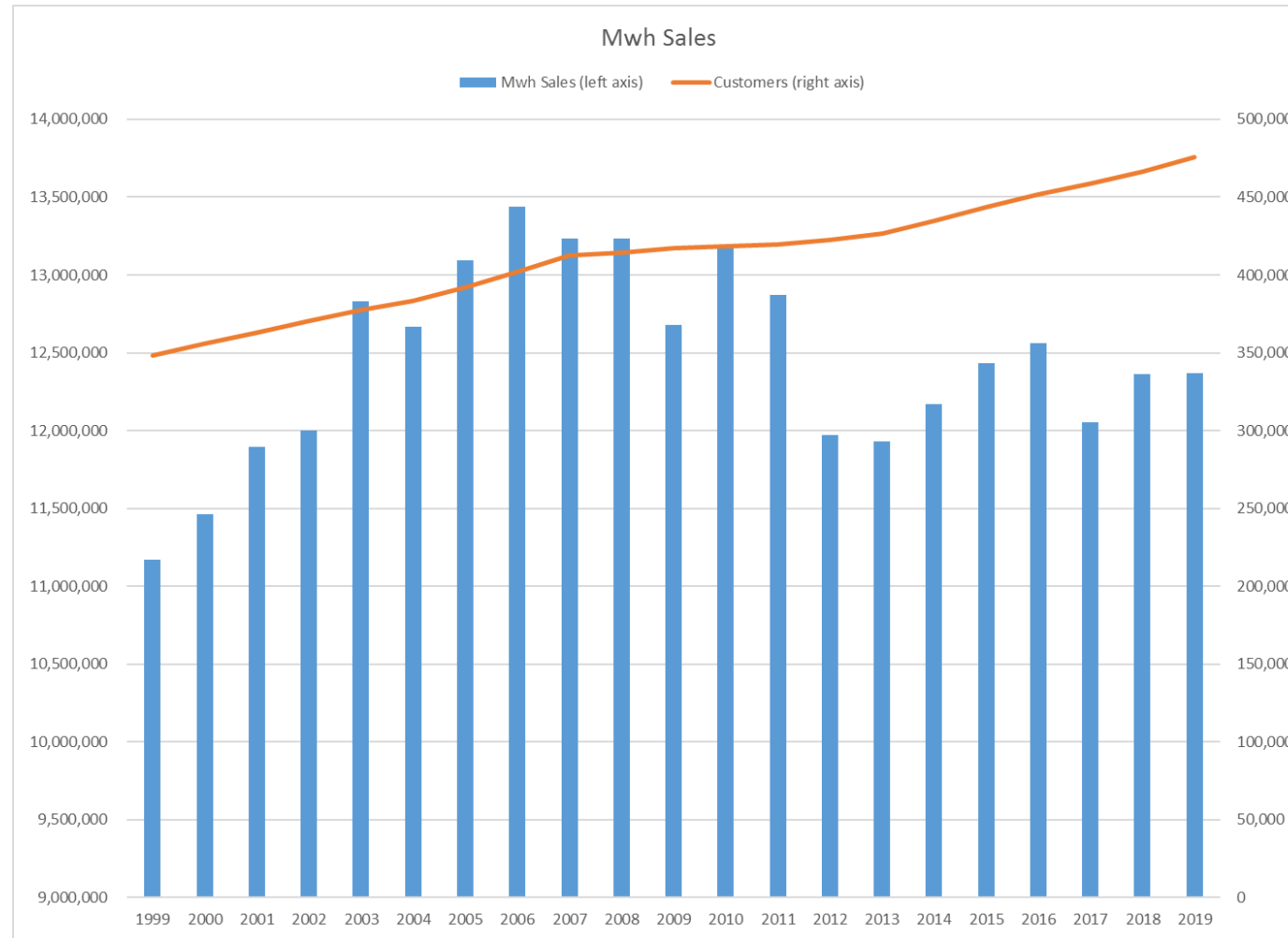
- Attachment A – Page 7 of JEA Handout from December 9 meeting
- Attachment B – Page 9 of JEA Handout from December 9 meeting
- Attachment C – Page 10 of JEA Handout from December 9 meeting
- Attachment D – Page 11 of JEA Handout from December 9 meeting

CC: City Council Members
 JEA Board of Directors
 Melissa Dykes, Interim Managing Director and Chief Executive Officer, JEA

ATTACHMENT A

The following materials are presented solely for COJ City Council planning and action. They are not a projection of future financial performance and, as such, should not be relied upon by present or prospective JEA bond investors to purchase or sell any security or to make an investment decision. The projections are merely a mathematical representation of a hypothetical case for change. Actual results are likely to differ materially from this business case. Use of this presentation not in its entirety could result in material financial harm to the company.

JEA's customer growth was unable to overcome lower sales per customer



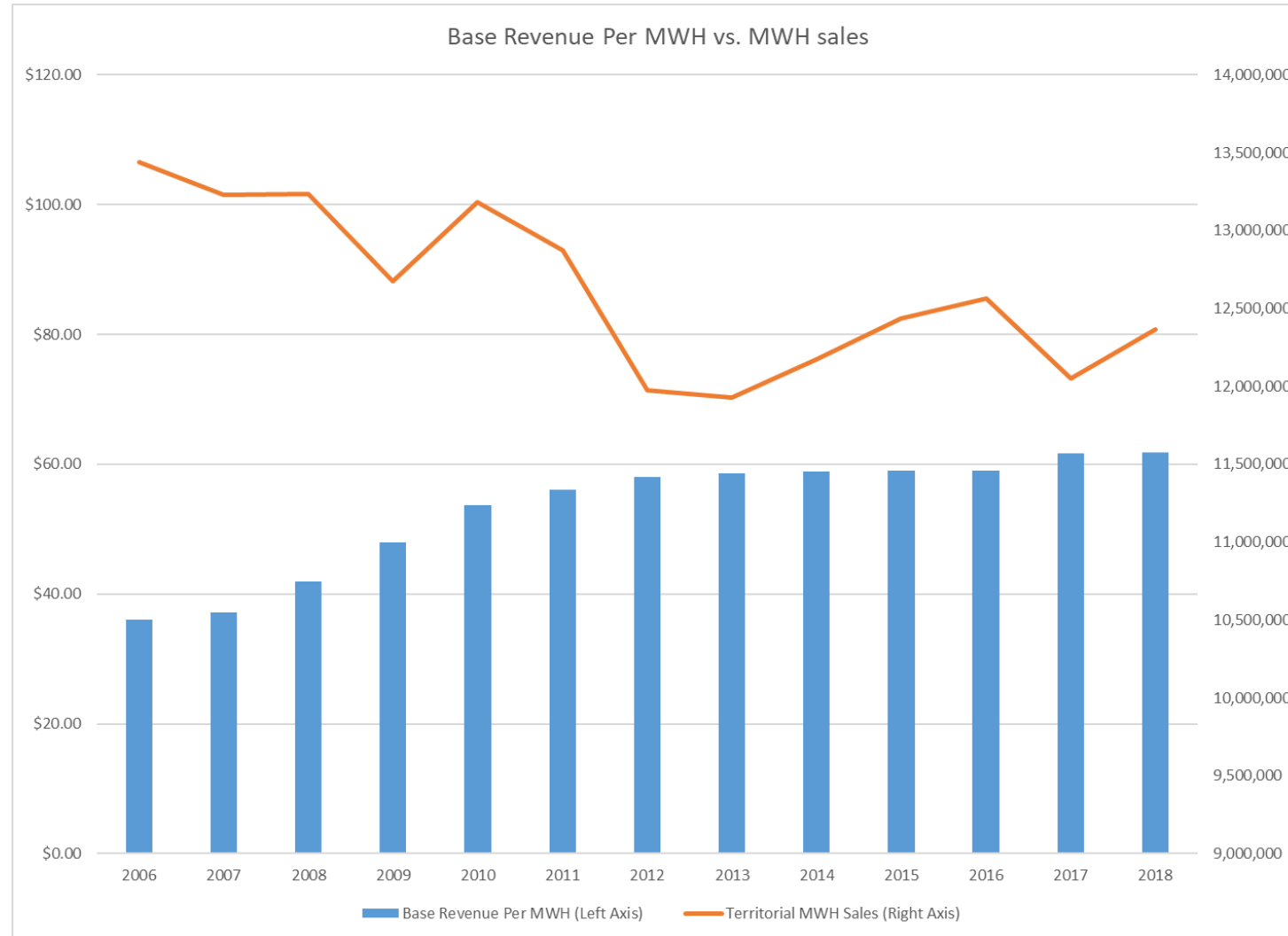
2006 to 2019 Sales were 8.7% higher in 2006 vs 2019 despite strong customer growth

- **2006 – 13,440,900 Mwh**
- **2019 – 12,366,395 Mwh**

ATTACHMENT B

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JEA raised base rates 71% since 2006



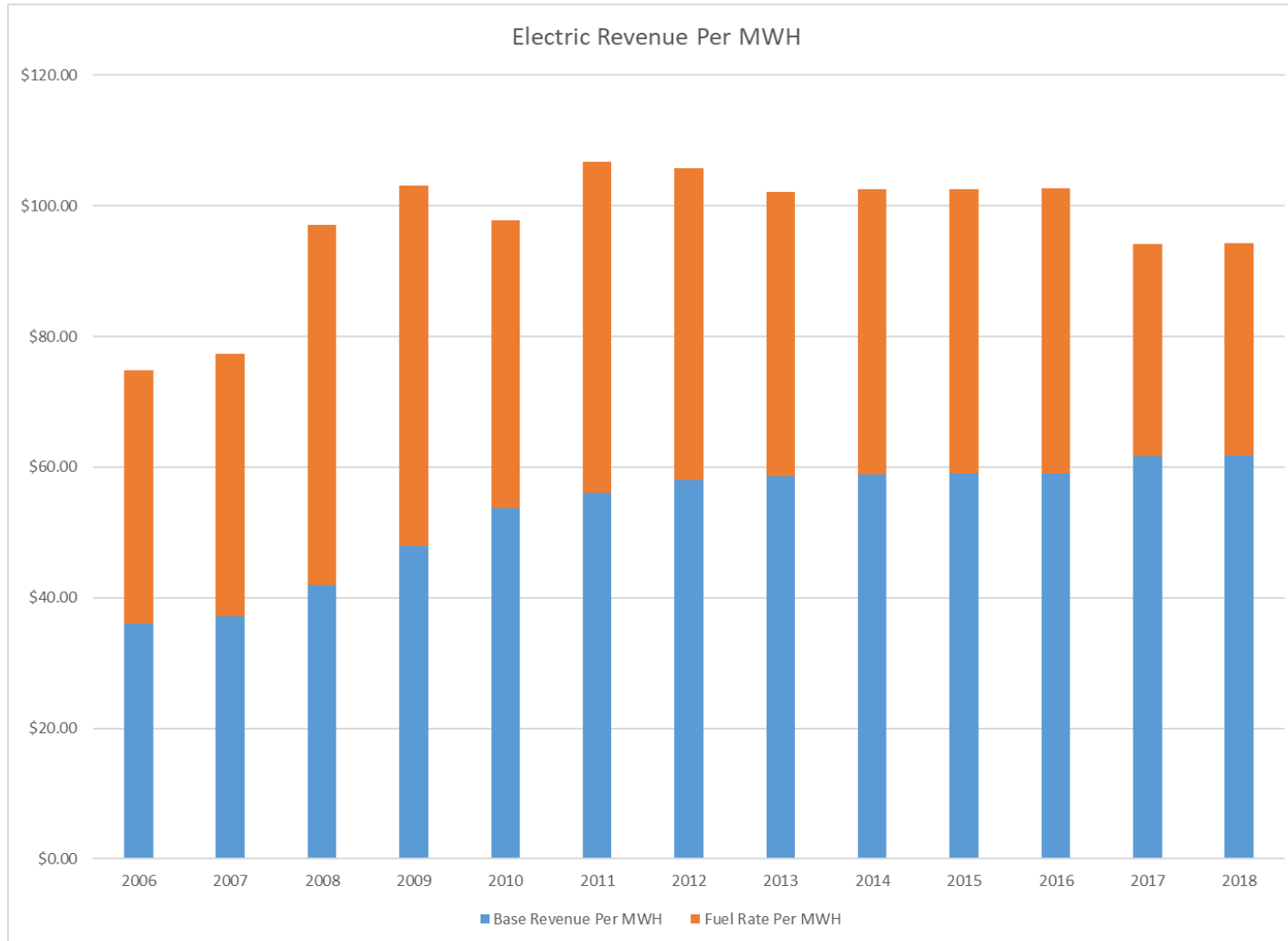
2006 to 2018 JEA lost over 1 million MWH in sales and charged an extra \$279 million per year

- **2006 – \$485 million**
- **2018 – \$764 million**

ATTACHMENT C

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But falling fuel costs have mitigated bill pressure since 2009



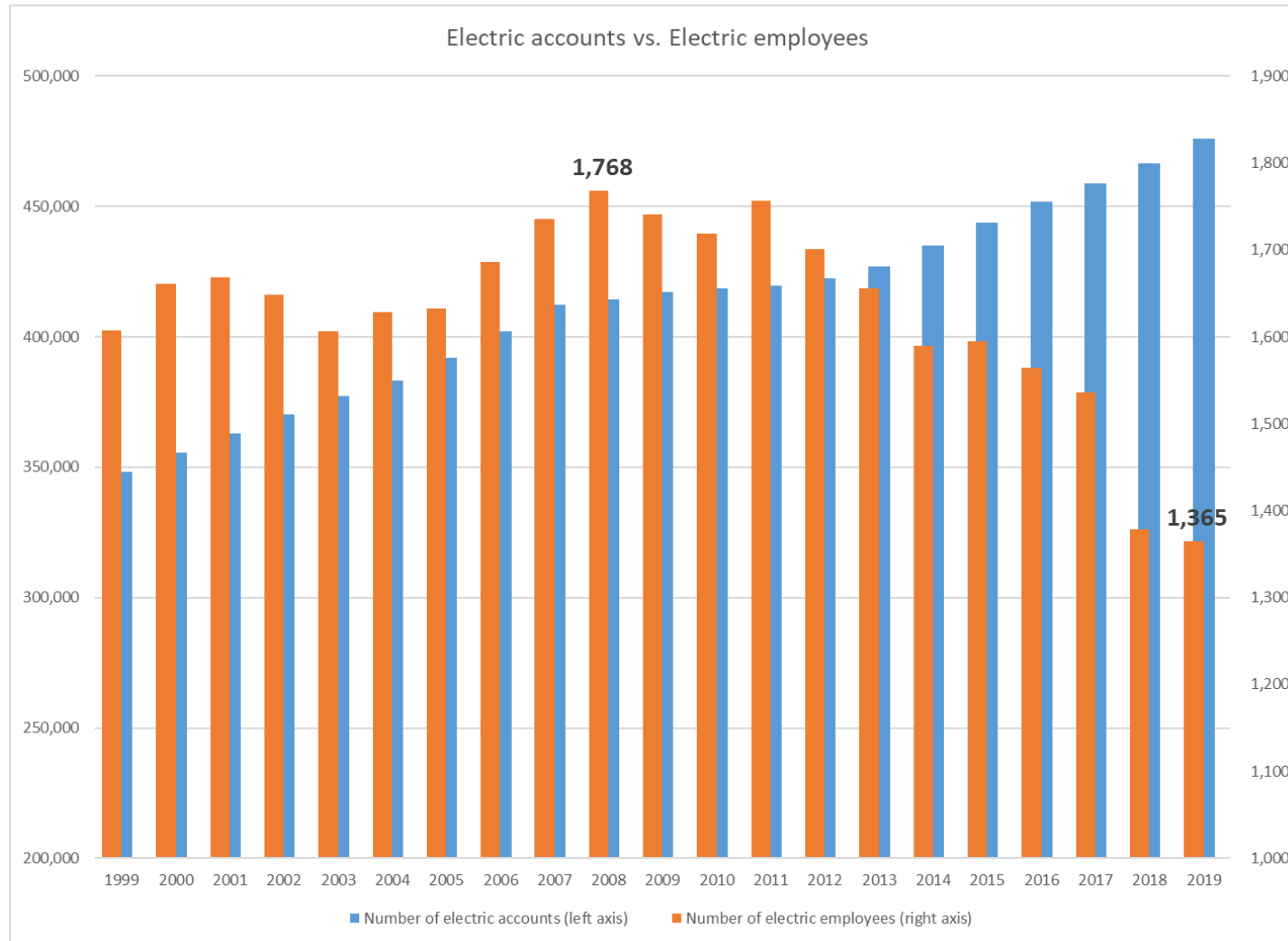
2008 to 2018 Fuel charges peaked in 2008 and 2009. Fuel costs have fallen over \$300 million per year since 2008.

- **2008 – \$55.14 per MWH**
- **2018 – \$32.50 per MWH**

ATTACHMENT D

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JEA reduced electric employee count 23% as electric customers grew 15%



2008 to 2019 JEA added over 61,000 electric accounts and reduced electric employees by 23%

- **2008 – 1,768 Electric employees**
- **2019 – 1,365 Electric employees**