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August 5, 2019

Mark L. Johnson, Executive Director and Secretary
Washington Utilities and Transportation Commission
P. O. Box 47250
Olympia, Washington 98504-7250

RE: 2019 Energy Emissions Intensity Reports Submitted by Avista Corporation d/b/a Avista
Utilities, Pacific Power & Light Company, and Puget Sound Energy
Dockets UE-190444, UE-190451, and UE-190423

Dear Mr. Johnson:

This letter is Staff's response to the three investor-owned utilities' (IOUs) Annual Energy Emissions Intensity Metrics Report (EEI report), filed on May 28 (Puget Sound Energy [PSE]), May 30 (Avista Corporation d/b/a Avista Utilities [Avista]; revised July 10), and May 31 (Pacific Power and Light Company [Pacific Power]), 2019. The EEI reports are required by WAC 480-109-300, which states that by June 1 of each year, each utility must report its carbon dioxide (CO₂) emissions "from all generating resources providing service to customers of that utility in Washington State, regardless of the location of the generating resources."¹ The WAC specifies that generators serving both out-of-state as well as in-state customers be "prorated to represent the proportion of the resource used by Washington customers."² Each year, the WAC requires the companies to calculate five metrics for each of the preceding 10 years: average megawatt-hours (MWh) per residential customer; average MWh per commercial customer; MWh per capita; million short tons of CO₂ emissions; and comparison of annual million short tons of CO₂ emissions to 1990 emissions.³

Staff has reviewed the reports filed by each company, and offers the following insights.

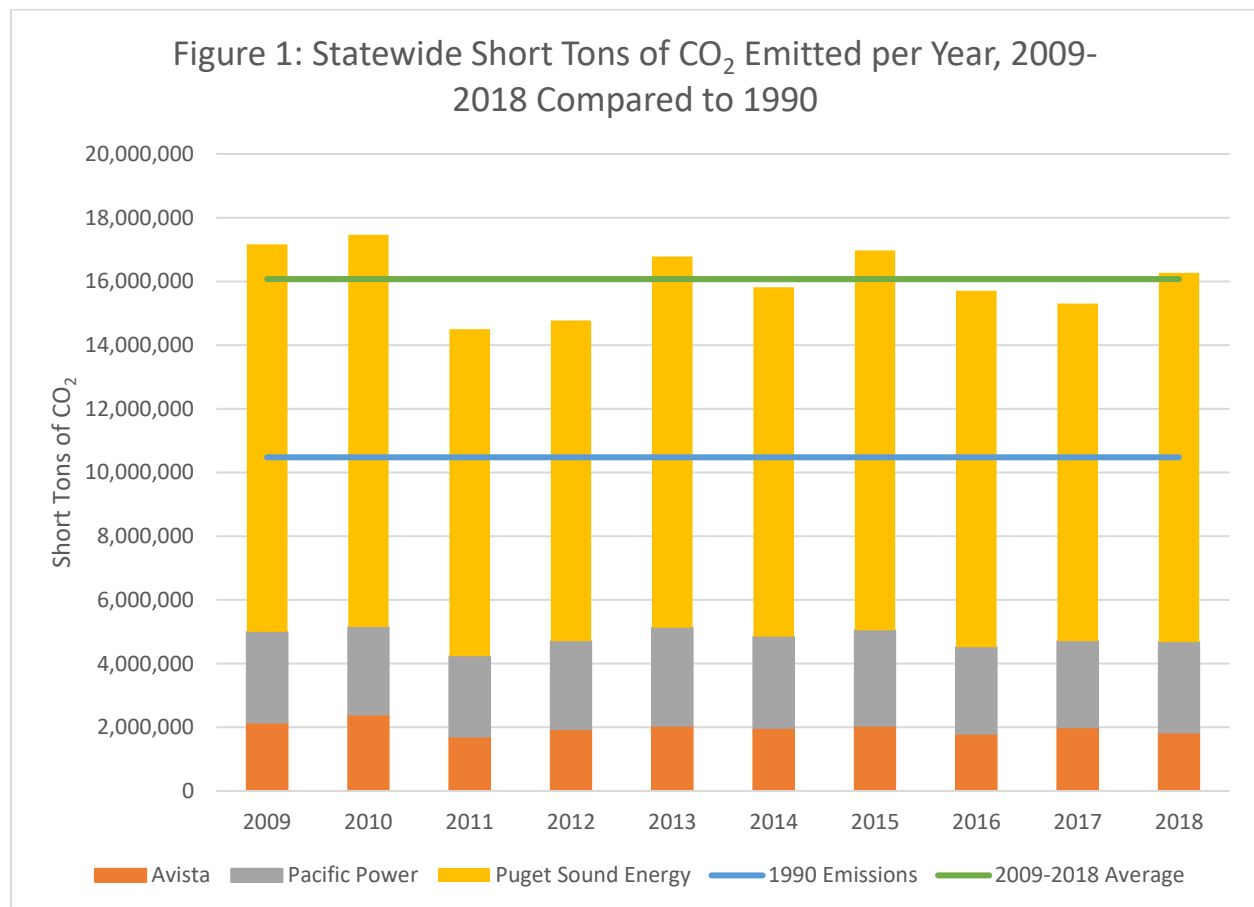
1 WAC 480-109-300(1).

2 *Id.*

3 WAC 480-109-300(2).

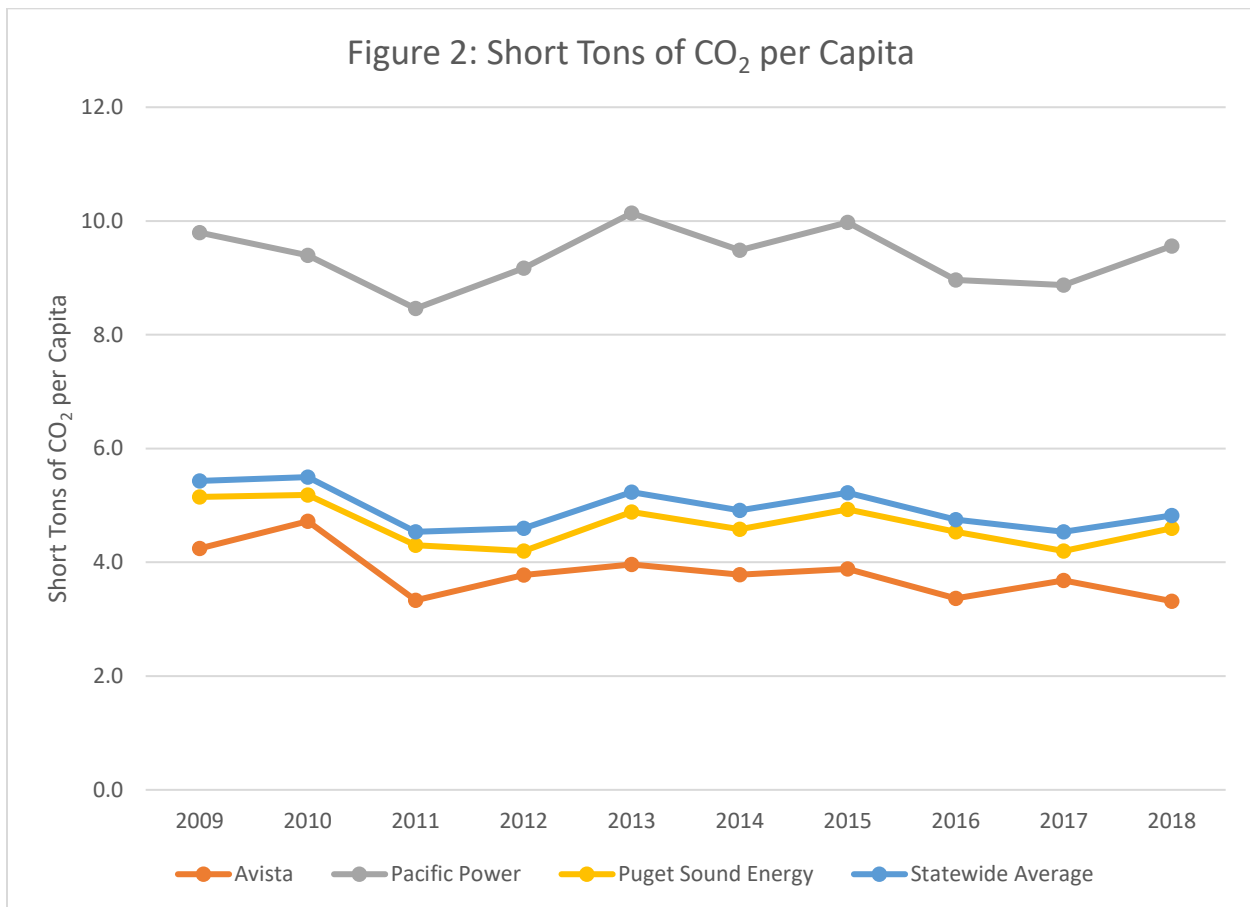
Staff Analysis of 2009-2018 CO₂ and MWh Trends

Figure 1 below displays the total short tons of CO₂ emitted annually by the three companies from 2009 to 2018, compared to 1990 emissions. In 1990, the companies emitted 10,477,099 short tons of CO₂ (shown by the blue line); from 2009 to 2018, the companies averaged 16,072,786 short tons per year (shown by the green line). Total statewide emissions from the three IOUs in 2018 were 5.2 percent lower than they were in 2009.⁴ Whereas statewide 2009 emissions were 164 percent of 1990 levels, 2018 emissions stood at 155 percent of 1990 levels.



Meanwhile, the state's utilities have continued to deliver energy more efficiently: The statewide average MWh per capita over the 2009-2018 time period dropped 10.3 percent, to 9.1 MWh per person. This contributed to an 11.2 percent decline between 2009 and 2018 in statewide average CO₂ emissions per capita, to 4.8 short tons per person in 2018. This decline is shown by the blue line Figure 2 below.

⁴ The statistics cited in this letter fluctuate annually. Staff's comments focus on the overall 10-year trends.



Avista (Docket UE-190444): Avista reports an overall decline in average MWh consumed by both residential and commercial customers, which has led to a decrease in MWh consumed per capita of 5 percent over the last 10 years. The company’s annual emissions (consistently the lowest among the three utilities) dropped by 14.7 percent in the same period. Overall, Avista’s total 2018 emissions stand at 162 percent of 1990 levels.

Avista credits its energy efficiency program, regional efforts, and improved codes and standards for lowering its energy intensity (MWh per capita), as well as its emissions. On the other hand, population growth has pulled total energy usage upwards, and fluctuations in annual hydro production can lead to significant year-to-year changes in emissions.

Pacific Power (Docket UE-190451): Pacific Power saw a decline in MWh use per capita of 7.7 percent since 2009, despite a jump in average electricity usage by commercial customers of more than 15 percent. Total emissions over the 10-year period were essentially flat, declining by just 0.3 percent. Pacific Power’s total 2018 emissions stand at 118 percent of 1990 levels, compared to 119 percent in 2009.

Pacific Power cites the 2007-2008 financial crisis and resulting recession as one possible suppressor of emissions in the ensuing years. This explanation fits with the leap in commercial

electricity usage seen between 2012 and 2014. Significant renewable energy additions in the 2006-2015 period helped keep the company's emissions down. Additionally, low natural gas prices have led to less use of coal, though the company notes that its 2008 acquisition of the Chehalis Generating Facility increased its overall emissions.

Puget Sound Energy (Docket UE-190423): PSE boasts the state's largest decline in per capita electricity usage (down 11.8 percent since 2009). Over that same period, PSE's total emissions fell by 4.7 percent; its emissions were 167 percent of 1990 levels in 2018, while in 2009 that figure stood at 175 percent of 1990 levels.

PSE's annual emission levels depend on its generation mix between owned, contracted, and spot market-purchased resources. The company's generation from coal (both owned and firm contracted coal) dropped in 2018, though a greater than three-fold increase in emissions from unspecified sources drove an overall increase in emissions in 2018. Helping to mitigate this increase are the company's owned and firm renewable resources, which together supplied more than 30 percent of its load in 2018.

SB 5116, signed into law in May 2019, requires the state's utilities to procure 100 percent of electricity from renewable and non-emitting sources by January 1, 2045. With that target in effect, emissions from electricity generation can be expected to decline in the coming years.

Conclusion

Staff recommends that the Commission acknowledge the EEI reports submitted by Avista, Pacific Power, and Puget Sound Energy in 2019.

Sincerely,

Andrew Rector
Regulatory Analyst