

**BEFORE THE PUBLIC UTILITY
COMMISSION OF OREGON**

LC 81

In the Matter of AVISTA CORPORATION,
dba AVISTA UTILITIES,

2023 Natural Gas Integrated Resource Plan.

OPENING COMMENTS OF THE
ALLIANCE OF WESTERN
ENERGY CONSUMERS

Introduction and Summary

AWEC appreciates this opportunity to provide opening comments in response to Avista Corporation *dba* Avista Utilities’ (“Avista”) 2023 Integrated Resource Plan (“IRP”). AWEC represents large energy consumers in the Pacific Northwest, including natural gas sales and transportation customers of Avista. Accordingly, AWEC is interested in ensuring that its members have access to reliable and competitively priced energy supplies and services and in promoting a healthy economy and environment in the Pacific Northwest and beyond.

This is the first IRP that Avista has submitted since the enactment of the Climate Protection Program (“CPP”) regulations by the Oregon Department of Environmental Quality (“DEQ”).¹ Accordingly, the 2023 IRP represents a major shift in Avista’s long-term resource planning, as well as its first attempt at optimizing resource alternatives for satisfying the Oregon CPP’s declining emission caps.²

AWEC is supportive of efforts to reduce greenhouse gas emissions and to reduce the carbon intensity of the natural gas system. Notwithstanding, maintaining access to competitively priced energy services is vital to the Oregon economy and energy intensive businesses in the state, which depend on natural gas to fuel their operations. Considering the dramatic rate impacts from the CPP that Avista has included in the 2023 IRP, AWEC is concerned that Avista’s CPP compliance strategy will have a profoundly negative impact on Oregon business.

¹ See OAR § 340-271

² 2023 IRP at 5-4 – 5-7.

AWEC Recommends Avista Engage in A Stakeholder Process To Evaluate and Mitigate The Impacts of CPP Compliance Costs On Energy Intensive Trade Exposed Industry

In Chapter 7 of the 2023 IRP, Avista presented the approximate rate impacts of various CPP compliance strategies for its customers. Based on those estimated impacts, AWEC is concerned that the CPP compliance costs being forecast will have a negative impact on the long-term competitiveness and viability of Oregon’s Energy Intensive Trade Exposed (“EITE”) businesses. The estimated industrial rate impacts of the CPP are shown in **Table 1**, below, along with a comparison to the forecasted rates for Washington and Idaho.

Table 1
Avista 2023 IRP Industrial Rate Impacts (Average Case)³

State	<u>Avg. Rate \$/dth</u>		<u>% Impact CPP/CCA</u>	
	<u>2025</u>	<u>2035</u>	<u>2025</u>	<u>2035</u>
Oregon	9.83	24.23	272%	450%
Washington	6.06	6.76	167%	126%
Idaho	3.62	5.38	100%	100%

In the average case, Avista calculates that, in a little over a year from now, the CPP will increase the cost of gas, including both distribution and commodity services, for Oregon EITE businesses to approximately \$9.83/dth. In comparison, the total cost of gas in 2025 for industrial customers in Idaho, where no greenhouse gas regulation exists, is forecasted to be \$3.62/dth. Oregon rates are also forecasted to be significantly higher than the \$6.06/dth, for industrial customers in Washington, where EITE businesses are given a certain amount of free allowances to mitigate the cost of Washington’s Climate Commitment Act (“CAA”). In 2025, the CCP is forecasted to result in Avista’s Oregon EITE customers paying rates that are 272% of the rates paid by Idaho customers, and in 2035, the Oregon cost is forecasted to increase to \$24.23/dth or 450% of the rates paid by Idaho customers. These rate impacts are also significantly greater than the impact on Nevada rates, where like Idaho, no rate increases are being forecasted with respect to greenhouse gas regulations.

³ 2023 IRP at 7-20, Figure 7.17.

Given these significant rate increases, it is necessary to investigate and reevaluate the impacts of the CPP on ratepayers. OAR 340-271-8100 (4) provides that:

If the average annual statewide retail cost of gasoline, diesel or natural gas in Oregon increases year-over-year by an amount that is more than 20 percent higher than the average change in cost for the same fuel over the same period in Washington, Idaho, and Nevada, DEQ will investigate the cause(s) of the increase and report to the EQC regarding whether changes to the rules in this division should be made that would ameliorate a relative increase in costs in Oregon. If necessary, DEQ will consider recommending rule changes, such as changes to caps and distribution of additional compliance instruments, changes to the compliance instrument reserve, or changes to the allowable usage of CCI credits.

Based on the estimated CPP compliance costs in the 2023 IRP, it appears that Oregon rates will be more than 20 percent higher than the average change in cost for natural gas compared to other states in the region. Oregon EITE business simply cannot absorb such significant rate increases and remain competitive in regional, national and global markets. Energy is often one of the highest operating cost inputs for EITE businesses, often only second to labor expenses. If EITE industries are required to pay 272% or 450% more for their energy requirements than their regional competitors, the viability of these Oregon businesses is at stake. Other states with greenhouse gas policies, such as Washington and California, have programs in place to protect EITE customers. Oregon has no equivalent policy with respect to the CPP. Both Washington's CCA and the California Cap and Trade program, allocates free allowances to EITE business to offset the negative economic impacts of the program on their states, and adopting similar policies for Oregon is vital to ensure that business and jobs do not move out of the state and out of the region.

Further, greenhouse gas policies that force EITE business out of Oregon has no positive impact on the environment. Most EITE business rely on natural gas and are unable to fuel switch, and even if they could, it would come at a considerable cost.⁴ In many cases, the cost of industrial electrification would be cost prohibitive. Forcing the closing a paper plant in Oregon, for example, has little impact on the overall demand for paper products. If a paper plant closes in Oregon, the production simply migrates to another location, often overseas, where the costs are lower and the policies are less restrictive.

⁴ U.S. Energy Information Administration Manufacturing Energy Consumption Survey 2018.

Industry in Oregon competes with businesses throughout the country and around the globe. Increasing the cost of one of the largest operating expenses by such a large magnitude is undoubtedly going to harm the competitiveness of Oregon businesses. This could result in the production of vital goods and supplies produced by Oregonians transferring out of the state and out of the country to areas, where the overall cost of production is lower and into areas with fewer environmental protections.

EITE businesses in Oregon will be profoundly impacted by the rate increases related to the CPP that Avista identified in the 2023 IRP. Considering these impacts and the overall policies of the state, AWEC recommends that Avista engage in a collaborative discussion with stakeholders, including the Oregon DEQ, to evaluate the impact of the CPP on EITE businesses in Oregon, with the goal of mitigating these impacts and keeping business in the state.

AWEC Supports Avista's Electrification Analysis Even Though It Is Understated

Electrification is a complicated issue that impacts both the gas and the electric system. In general, Avista discusses its approach to electrification in Chapter 3 of the IRP. Avista evaluates the cost effectiveness of several electrification measures as demand side management resources. Under its approach, Avista considers both the conversion costs and the ongoing electric energy costs in its evaluation of the cost effectiveness of electrification measures. From its analysis, Avista concluded that the levelized costs of electrification measures were significantly higher than the avoided cost of natural gas.

In general, AWEC supports Avista's approach to electrification. Notwithstanding, Avista's analysis may have significantly understated the true cost of electrification by not considering the incremental fixed cost of investments that may be necessary to serve electrified natural gas demand. Simply looking at the electricity rates of the corresponding electric utilities does not consider that electrification efforts may require the electric utility to construct new transmission, distribution, and generation facilities to serve the new, electrified loads. These fixed costs are particularly important to consider when evaluating any widespread electrification efforts. AWEC, however, understands that Avista generally does not have such information available in its Oregon service areas, where customers receive services from other utilities.

Further, more study of the *marginal* effects of electrification on greenhouse gas emissions needs to be performed before considering any widespread electrification policies. It is simply not accurate to assume, for example, that the addition of new load on the electrical system will result in emissions that are equal to the average for the electrical system. When comparing the greenhouse gas emissions between the natural gas and electric system, it is necessary to consider the incremental impacts on emissions caused by the incremental load, not the average emissions. For example, some of Avista's gas customers in Oregon take service from the Oregon Trail Electric Cooperative ("OTEC"). OTEC is a preference customer of the Bonneville Power Administration ("BPA"), and has a legal priority to purchase federally generated power from BPA. Notwithstanding, simply assuming that adding new load on the OTEC system will result in no incremental emissions based on OTEC's access to priority, Tier 1 power is not accurate. OTEC's load is currently above its contract high water mark, and therefore, any incremental load would be served with Tier 2 power, which has a different greenhouse gas profile than the Tier 1 power from the base federal system. Moreover, if BPA is required to sell more hydro power to serve incremental OTEC load, that incremental sale displaces the sale of that hydro power into the market, where it would otherwise be used by another customer of another utility. The volume of near-zero carbon hydro power does not increase with the addition of new load on BPA's system. Therefore, when analyzing marginal emissions of electrified load, it is necessary to consider the marginal impact on the regional electrical system, not necessarily the average resource portfolio of any regional utility.

This is an important consideration with respect to electrification because, while average emissions have been declining in the West, marginal emissions have been increasing. A recent peer reviewed paper published in the Proceedings of the National Academy of Sciences, for example, concluded the following:

In contrast to average emissions, we find that marginal CO₂ emissions are increasing or remaining constant in all three interconnections (Fig. 1 and SI Appendix, Table S2). In addition to providing an estimate for each year in each region, we estimate linear trends in marginal emissions over time and find positive and statistically significant effects in the East and West, but not in Texas (Fig. 1 and SI Appendix, Table S3). Applying the estimated year-to-year changes, we find that, since 2010, marginal CO₂ emissions increased 6% in the East and 15% in the West. The increase in

marginal emissions for the United States as a whole was 7% over the last decade, and this occurs despite the fact that average emissions declined 28% over the same period.⁵

A marginal emission analysis of electrification can be viewed in both the short-term or the long-term. In the short-term, i.e. in the absence of any new transmission or generation resource additions, a marginal emissions analysis is fairly straight forward. An increase in system demand on the electric system will result in an increase to the dispatch of the marginal generation resource. This has historically been a natural gas fired combustion turbine, but as demands and electric prices have risen in recent years, the incremental resource may have a position much further down the generation stack, perhaps corresponding to an inefficient natural gas steam turbine or even a coal fired steam turbine. Thus, in the short-term the incremental emissions of electrification could be quite high relative to the emissions of natural gas.

Further, the same marginal emission analysis must be performed on the natural gas side when evaluating the carbon emissions and greenhouse gasses avoided from an electrification measure. For example, a major source of greenhouse gas emissions from the natural gas system comes in the form of methane leakage. Electrifying an end use of natural gas, however, does not avoid the upstream methane leakage associated with the production or transmission of natural gas if natural gas is used to generate electricity. Viewed on the margin, the avoided natural gas greenhouse gas emissions from electrification will be lower than the average natural gas emissions, meaning the short-term marginal emissions of electrification may be quite high relative to the emissions avoided on the natural gas system. If viewed in the long-term, however, the analysis of electrification becomes much more complicated and further study should be performed before policy decisions are made.

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⁵ Holland, et. al., *Why marginal CO2 emissions are not decreasing for US electricity: Estimates and implications for climate policy*, Proceedings of the National Academy of Sciences, Vol. 119, No. 8 (Feb. 2022).

Efforts are underway to decarbonize both the gas and the electric systems. There are some advocates that strongly believe that decarbonization of the electric system is more likely or more feasible than decarbonization of the gas system. As noted in PacifiCorp's recent IRP, however, achieving a near-zero carbon future on the electric side, likely cannot occur without the development of low-carbon fuels, such as renewable hydrogen and synthetic methane.⁶ As PacifiCorp stated:

The 2023 IRP also includes 606 MW of non-emitting peaking resources by year-end 2029, increasing to 1,240 MW by the end of 2036. The advancement of these new technologies are [sic] critical to the planned transition of PacifiCorp's coal fleet.⁷

And in the short-term, the electric system still depends heavily on greenhouse gas emitting resources, such as natural gas fired combustion turbines and coal generators. Further, the direct use of natural gas is more carbon efficient than using that natural gas to generate electricity. Granted the evaluation of the carbon emissions and greenhouse gases is complicated and must consider the efficiencies of different technologies (e.g. heat pumps versus a furnace), direct vs indirect use of fuel, and considerations of methane emissions and leakage which are present in both the electric system through gas fired generation and the gas system. A comprehensive analysis of these factors needs to take place before determining that electrification is a viable pathway for decarbonization in the long-term. Considering these factors, AWEC recommends against making widespread policy decisions surrounding electrification in this docket.

AWEC Recommends that Avista Accelerate Its Industrial Energy Efficiency Program

AWEC appreciates Avista's efforts and its collaboration with AWEC to discuss industrial energy efficiency programs. In Action Items 2 – 4, Avista proposed to continue its status quo programs with the Energy Trust of Oregon ("ETO") and to begin a stakeholder process surrounding industrial customer energy efficiency. Because of the significant impacts to industrial customers from the CPP, AWEC requests that Avista expedite the stakeholder process for an industrial customer energy efficiency program.

⁶ PacifiCorp, 2023 Integrated Resource Plan at 227 (2023).

⁷ *Id.* at 15.

Avista Should Demonstrate That It Will Be Able To Meet the CPP Declining Caps With Existing Technologies and the Availability of RNG

The principal focus of the 2023 IRP action plan is on Avista’s strategy for complying with the CPP. In general, the modeling that Avista performed, as well as the outcome for the action plan period, is largely intuitive and consistent with the analysis and outcome performed by NW Natural in its IRP, Docket LC-79. Avista’s first five action items are associated with meeting its CPP compliance obligations.

- *In Action Item 1, Avista proposes to procure the Community Climate Investments (“CCI”) over the period 2022 through 2026 for complying with the CPP.*
- *In Action Items 2 – 4, Avista proposed to continue its status quo programs with the Energy Trust of Oregon (“ETO”) and to begin a stakeholder process surrounding industrial customer energy efficiency.*
- *Finally, in Action Item 5, Avista proposes to procure 8.64 million therms of Renewable Natural Gas (“RNG”) in 2023 and 21.80 million therms of RNG in 2024.*

While AWEC is concerned with the cost impacts of these compliance pathways, AWEC does not necessarily oppose these three items as the primary means for complying with the CPP’s declining cap. There are limited options available today for complying with the CPP. Considering the rapid reductions to the CPP cap, and the technologies currently available, CCIs, Energy Efficiency, and RNG are currently the primary options for CPP compliance. In the long term, however, even implementing all of these options and other technologies may not be sufficient to meet the CPP cap. Figure 3 from the IRP, for example, details the enormous task involved in addressing the CPP cap, which is reproduced below.

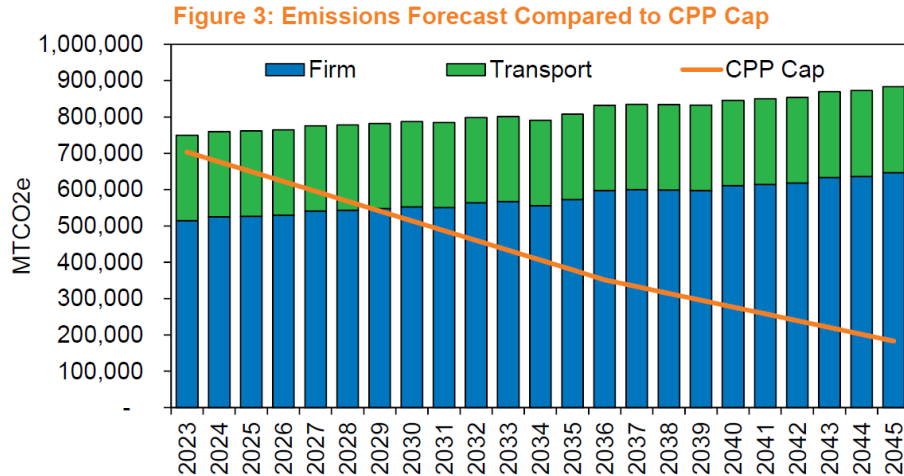
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Figure 3



Avista indicates that the first compliance periods will be satisfied primarily through a combination of CCIs and RNG procurement. However, the maximum amount of CCIs that can be purchased is capped and there is a technical limit to the savings achievable through energy efficiency. Therefore, RNG has been established as the primary method to comply with the CPP in the near term. In the 2023 IRP, Avista forecasts that it will acquire 864,000 dth of RNG in 2023 and 2.2 million dth of RNG in 2024. As a practical matter, however, AWEC is concerned that there is not sufficient time, or feed stocks available for Avista to acquire such significant amounts of RNG for the first compliance period, especially since NW Natural and Cascade are presumably competing for the same resources.

Further, as the CPP cap declines, there will be increased demand for RNG to meet regional utilities' demand. For purposes of meeting these requirements, the 2023 IRP forecasts the emergence of new technologies, including synthetic methane and hydrogen production, that will be necessary to meet the declining cost caps. Carbon capture is another technology that has significant potential.

While AWEC believes that there is promise in many low carbon fuel technologies and carbon capture, relying on the rapid development of cost effective technologies to meet the CPP caps calls into question whether the caps, themselves, will be attainable if the technology does not develop at the pace that Avista forecasts. Avista should provide more details surrounding its plan to comply with the CPP today if technology does not evolve as quickly as Avista assumes in the IRP.

Conclusion

AWEC appreciates the opportunity to provide these comments and looks forward to future participation in this docket.

Respectfully submitted,



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