

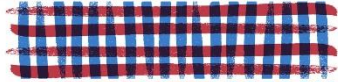
Southern Oregon Climate Action Now

SOCAN

Confronting Climate Change

<https://socan.eco>

CLIMATE ENERGY & ENVIRONMENT TEAM



CONSOLIDATED OREGON
INDIVISIBLE NETWORK

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Chair Decker and Members of the Public Utilities Commission:

I write as cofacilitator of Southern Oregon Climate Action Now (SOCAN), an organization of over 2,000 rural Southern Oregonians who are concerned about the climate crisis and urge statewide action to address it. The mission of SOCAN is to promote awareness and understanding of the science of global warming and its climate chaos consequences and stimulate individual and collective action to address it, doing so within the framework of addressing social justice. Since rural Oregonians occupy the frontlines in experiencing the impact of the drought, shrinking snowpack, wildfires and extreme weather that the climate crisis imposes, we are strongly committed to statewide action.

I also write as a co-chair of the Climate, Energy and Environment Team of the Consolidated Oregon Indivisible Network.

In both capacities, I write regarding the IRP submitted by Avista.

I engaged with the Department of Environmental Quality from the initial round of technical information hearings as it began considering its response to Governor Brown's Executive Order 20-04, through the meetings of the Rulemaking Advisory Committee (RAC) and the final consideration and approval of the Climate Protection Plan by the Environmental Quality Commission in December 2022. During the many months of this process, I submitted a plethora of comments and suggestions to DEQ on the meetings and their outcomes.

During the RAC sequence, the Natural Gas utilities were well represented as members of that body. Throughout those discussions, these representatives claimed that they were committed to addressing the climate crisis by reducing their greenhouse gas emissions. Yet, time and again, they resisted reasonable efforts on the part of DEQ or other RAC members to develop a strong program. And then, of course, once the Climate Protection Program was developed and approved by the Environmental Quality Commission, the gas utilities joined the effort of polluters statewide to undermine and negate the CPP. Now that they have succeeded in this

effort, it is unsurprising that Avista mentions this success in the second paragraph of their response to PUC Staff comments: “Much of Staff’s comments pertaining to their recommendation of non-acknowledgment relate to the Climate Protection Program (CPP) which on December 20, 2023, the Oregon Court of Appeals has ruled the CPP rules as invalid.” The impression this creates is of confirmation of Avista’s resistance to developing a business model that will lead to the kind of emissions reductions we know we need. Since we know that DEQ plans to re-establish the thwarted program, this reference seems irrelevant. Rather, it confirms the longstanding pattern of resistance to climate science acknowledgment and action described below.

For over a decade research demonstrating the fallacy that methane (natural gas) is clean has been growing. Yet, Avista (2021) has continued to reiterate this false claim. For example, in these promotional materials, we find: “Even though natural gas is a clean fuel, we believe we can make it greener, and we felt it was time to be clear about our path forward.” Continuing to repeat this false claim even though the contrary research is abundant seriously undermines Avista’s credibility in any claims they make. When the negative health effects of domestic exposure to methane (e.g., Gottlieb & Dyrzka 2017, Seals & Krasner 2020, O’Rourke *et al.* 2022) are added to the climate equation, it becomes more obvious that Avista’s effort to maintain and even expand its marketing of methane should be challenged.

Since the PUC has long been considering methane gas utility documents and requests, I will assume that PUC members are fully aware of the evidence regarding the substantial global warming potential of methane and the greenhouse gas emissions that result from the extraction, processing, transmission and combustion of methane. In short, full lifecycle assessments of these emissions, considering the far greater short-term global warming potential imposed by methane compared to carbon dioxide, reveal that, in terms of its global warming impact, fracked and conventionally extracted methane gas can easily be as bad as – if not worse than – coal as an energy source. Indeed, a recent peer-reviewed paper by Gordon *et al.* (2023) offers the following four important conclusions:

- 1- “gas with a 0.2% leakage rate is on par with coal at all analyzed levels of CMM [Coal Mine Methane] leakage.”
- 2- “Based on existing studies, coal has a median life-cycle GHG [emissions rate] of 980 kg CO₂e per kWh (with an absolute minimum of 675 and maximum of 1689) and gas has a median life-cycle GHG of 501 CO₂e/kWh (with a minimum of 290 and maximum of 988).”
- 3- “...global gas systems that leak over 4.7% of their methane (when considering a 20-year timeframe) or 7.6% (when considering a 100-year timeframe) are on par with life-cycle coal emissions from methane leaking coal mines.”
- 4- “methane leakage from gas production systems [ranges] from <1% to >66%.

Note that while the median value (# 2) for global warming emissions from gas usage is half that of coal, the range for gas emissions overlaps that for coal. This implies that gas is, in some

situations, worse than coal. Since leakage rates increase with pipeline age (e.g., Weller *et al.* 2020), it seems inevitable that emissions will increase as infrastructure ages.

Given the serious climate damage that the gas utilities impose and the ongoing pressure to electrify everything, Avista seems reluctant in its IRP to recognize this and adequately account for it. Avista seems intent on taking the minimum steps possible to reduce its contribution to the problem while maintaining a commitment to the basic business model that has been contributing to the climate crisis for decades.

Figure 5: Oregon Preferred Resource Strategy

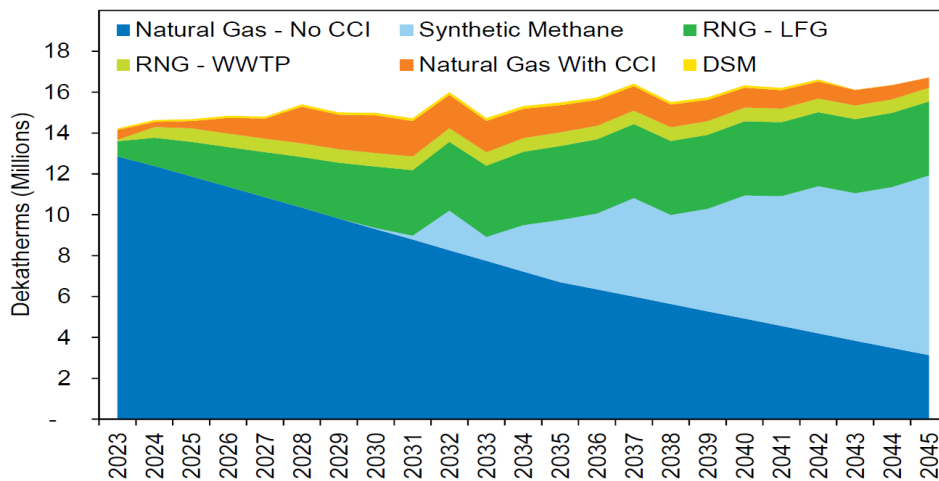


Figure 1. Anticipated contribution of RNG to the gas supply in Oregon by Avista. RNG from Landfill Gas (LFG), Wastewater Treatment Plants (WWTP), energy efficiency, Community Climate Investments (CCIs) through the CPP, and conventional natural gas. Synthetic methane; DSM - Demand Supply Management. (Avista 2023)

Avista’s resource strategy for Oregon is presented in Figure 1 where the emphasis on so-called Renewable Natural gas (RNG) and Synthetic Methane is evident. There is abundant evidence that accurate full lifecycle assessment of RNG indicates that it is not superior to fracked natural gas (e.g., Feinstein and de

Place 2021). Meanwhile, in a study of the potential for RNG incorporation in the state’s natural gas supply, the Oregon Department of Energy (ODOE 2018) inventoried supplies and concluded: “The gross potential for RNG production when using anaerobic digestion technology is around 10 billion cubic feet of methane per year, which is about 4.6 percent of Oregon’s total yearly use of natural gas.” As Figure 1 illustrates, Avista anticipates RNG comprising much more than 4.6% of its total supply. Even employing [energy - fossil fuel intensive] thermal gasification technology, the ODOE study concluded the maximum would be 17.5%. One wonders if Avista imagines a massive increase in landfill and agricultural animal feedlot operations that produce methane. Although Avista rejected the PUC concern about the quantity of RNG available to meet the desired capacity, it should be noted that using national supplies of RNG in Oregon would require transmitting the gas from the distant corners of the nation. The result would inevitably be substantial leakage of methane from the pipelines through which this gas is pumped, an outcome substantially negating any RNG benefits. While the CPP as approved was clearly targeting emissions in Oregon, this should not be achieved by exporting those emissions across the country.

Avista (Figure 1 again) also clearly relies heavily on a future with synthetic methane. Even if synthetic gas from hydrogen derived from the energy intensive electrolysis of water using renewable energy and combining this with Carbon dioxide captured using the economically questionable process of carbon capture from industrial process were possible, NRDC (2020) indicated that synthetic gas "...is still projected to be very expensive in 2040 and 2050." Relying on carbon capture to provide the carbon dioxide also seem optimistic. While reporting on the EPA proposing rules that challenge industry to fulfill its promise to establish carbon capture technology to reduce emissions, Hennessy (2023) concludes "CCS doesn't have a strong track record of actually sequestering carbon — especially for the power sector, where 90 percent of proposed carbon capture capacity has failed or never gotten off the ground." Synthetic methane seems unlikely to provide Avista with an economically feasible option. The PUC should be skeptical about claims from Avista that involve emissions reductions relying on synthetic methane and the questionable CCS technology.

Additionally, abundant problems exist with the concept of incorporating Green Hydrogen into the gas mix (e.g., St. John 2022; MITClimate 2023). The latter source, quoting Raju et al. (2022) pointed out: "In a study released last summer, the California Public Utility Commission found that up to 5 percent hydrogen blended with natural gas appears safe, but higher percentages could lead to embrittlement or a greater chance of pipeline leaks." Erdener et al. (2023) concur, pointing out that "existing gas-fired power plants or industrial processes, may not be designed to tolerate hydrogen blending beyond a given limit; for many existing gas-fired power plants, this limit is 5% volume." In short, Hydrogen whether green, blue, gray, brown or pink, cannot contribute much to solving Avista's greenhouse gas problem.

In developing its IRP, Avista seems to have lost sight of the fact that it is an energy company not merely a gas company. Avista's best future seems to be to transition out of the gas arena and into renewable energy. It also seems to have abdicated the claims that it has often made that it accepts climate science and is willing to become part of the solution rather than continues as part of the problem. Avista's track record encourages confidence in neither its IRP nor its commitment to reducing emissions rather than expanding its gas network. The task of the PUC is to ensure Avista fulfills its commitment with a reasonable IRP.

Respectfully submitted,

Alan Journet Ph.D.

A handwritten signature in black ink that reads "Alan Journet". The signature is written in a cursive, flowing style.

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