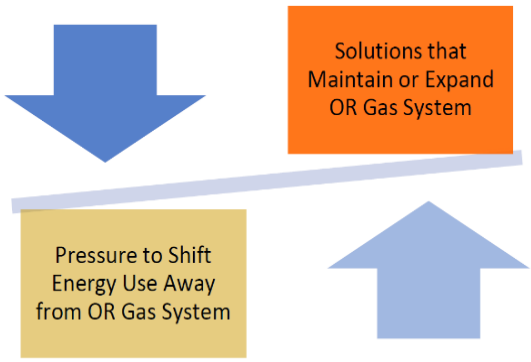
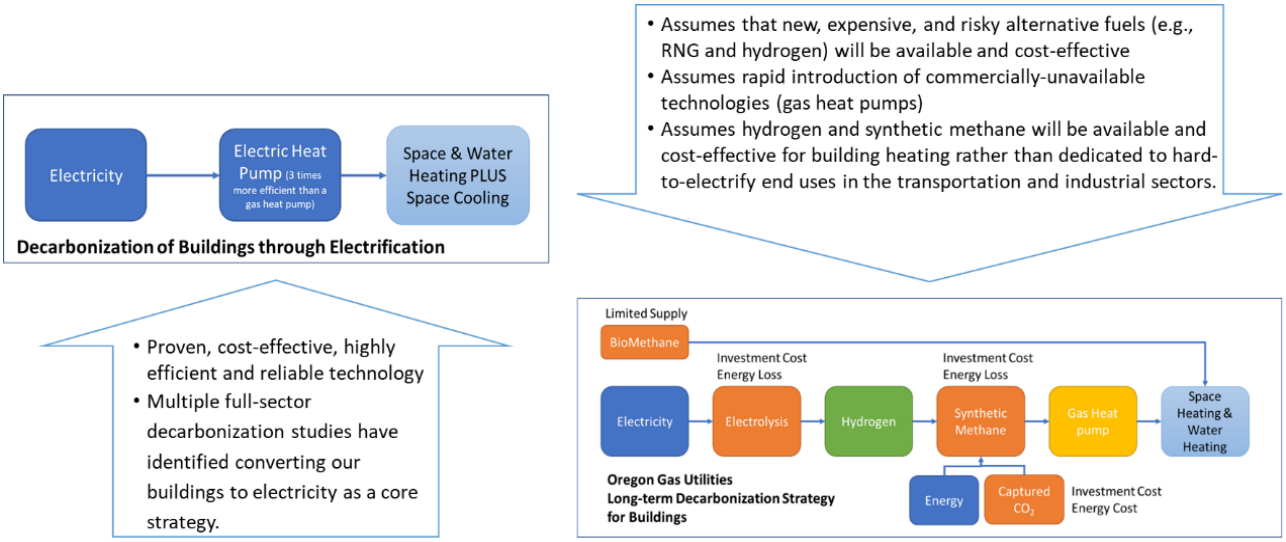
Natural Gas Factfinding: UM 2178 – Comments on Draft Report

Oregon Public Utilities Commission,

We live in a time of multiple growing crises, with global warming and its resulting climate disruptions leading the list. The 6th IPCC Assessment Report[1] stresses that "Unless there are immediate, rapid, and large-scale reductions in greenhouse gas emissions, limiting warming to 1.5°C will be beyond reach."

Given this backdrop, it's very disappointing that the Natural Gas Factfinding Draft Report presents a very distorted framing of the issues with its first finding: "Momentum for both limiting gas expansion and for gas supply innovations is accelerating." This framing creates a false sense that there are two alternative and equally viable sides to how to best (most economically to society) decarbonize services such as space heating and water heating in our buildings and industry. The draft report further reinforces this false balance with the figure at the start of Section 3.1 (shown to the right). In reality, that same figure should be restructured as shown below.





On the left there is a proven decarbonization pathway for both residential and commercial buildings based on electrification using existing, efficient heat pump technologies. This pathway has been validated in multiple analyses at the global, national and regional levels to be one of the fundamental

[1] Sixth Assessment Report — IPCC

least-cost components of deep decarbonization pathways[2]. The Oregon Clean Energy Pathways Analysis[3] found that Oregon's GHG emission reduction targets can be most cost-effectively reached with deep electrification of transportation and buildings, and 100% clean electricity. In addition, the International Energy Agency's most recent report[4] on the prospects for reducing global greenhouse gas emissions concluded that in order to reach global net-zero emissions by mid-century, we must immediately stop investing in new oil, gas and coal supply projects or power plants, new natural gas hookups in buildings should be banned by 2025, and new sales of gas-powered vehicles should be phase-out by 2035.

These studies all considered the alternative pathways envisioned by the gas utilities and found them too complicated and expensive for buildings and light industry. Indeed, these RNG pathways are complex, and not only have higher investment costs, but also have much higher energy inputs compared to the electrification pathway. Furthermore, these investments, which are needed to develop new technologies in multiple fields, are not guaranteed to produce the assumed cost reductions and performance improvements. In contrast, the electrification pathway is simple and uses well-proven, commercial technologies and does not require any new technology development. For the draft report to propose these pathways as equally valid alternatives ignores the above facts and obscures the significant advantages that building electrification will bring to consumers, to society and to the environment.

The gas utilities have created the myth that the gas system can be decarbonized in order to justify continued expansion of their infrastructure. They are proposing that we, as a society, forgo rapid electrification of buildings, which is proven and cost-effective, in order to hope that biogas, hydrogen production, CO2 capture and synthetic methane production will prove to be a better strategy to heat our buildings! This is not a bet that any sane society would take, and the report should better reflect these facts.

The PUC has the responsibility to take steps that will ensure the gas industry complies with the Climate Protection Plan at the lowest cost to ratepayers, which has been repeatedly shown to be through electrification. The following actions would protect Oregonian ratepayers from paying for risky and self-serving investments by the gas utilities, and deliver multiple co-benefits, including lower energy bills, faster reductions in GHG emissions and reduced indoor and outdoor air pollution. We recommend that the report be revised to support the following actions:

1. Halt all new expansion of the gas system for residential and commercial buildings,
2. Enact policies to incentivize targeted and phased programs for electrification and weatherization especially for income qualified customers,
3. Develop a plan for phased decommissioning of portions of the gas grid as electrification progresses.

[2] RMI, "The Economics of Electrifying Buildings," Sherri Billmoria et al, 2018: https://rmi.org/insight/theeconomics-of-electrifying-buildings/

[3] Oregon Clean Energy Pathways Analysis (cleanenergytransition.org)

[4] Net Zero by 2050 – Analysis - IEA

4. Protect ratepayers from unnecessary and risky utility expenses, by denying cost recovery through rates for activities such as RNG advertising and promotion, and investments in unproven technologies such as gas heat pumps.

The most critical near-term action the PUC should undertake, as noted in the final finding of the draft report, is to establish a process for comprehensive energy system planning across gas and electric utilities. As an impartial regulator, the PUC's core mission is to protect the public interest, and the PUC must ensure that the most cost-effective solutions to the climate crisis are adopted. An integrated planning process is needed to support an orderly transition of our building stock to low-carbon appliances in a least-cost manner. The comprehensive energy system planning process should be used to develop the supporting analysis for plans that include:

1. A timeline and approach for electrification of existing buildings,
2. How to best target incentives for phased electrification, and
3. Phased decommissioning of portions of the gas grid no longer in use.

Throughout this Fact-finding Docket, the gas utilities have repeatedly cast doubt on the ability of the electric system to absorb the additional heating load now covered by the gas system. This is a scare tactic designed to slow the move to electrification. The ability of the electric system to absorb these loads is not a near-term issue, and there are significant electric load reductions associated with the transition of existing electric resistance space and water heating to high efficiency heat pumps, which will offset many of the additional loads from electrifying homes currently heated by gas. The remaining incremental loads can readily and gradually be absorbed by the electric utilities through the IRP process.

The Fact-finding report should make clear that the methane gas for space and water heating in our buildings is not part of Oregon's clean energy future, and recommend the steps outlined above to manage this process going forward. Such a finding is needed to make clear to the gas utilities that their current business model must change, and that they need to plan their transition to a new business model that focuses on providing carbon-free energy for industrial customers who do not have cost-effective electrification options and on developing a carbon free, long-term energy storage capability, such as green hydrogen, to provide the seasonal storage capacity to meet infrequent winter-heating peak demands.

Thank you for this opportunity to provide comments on the draft report. I am an energy and climate policy expert who has worked in the US and internationally for over 40 years. I organize locally with the Metro Climate Action Team (MCAT), which is a community of experienced volunteers working to steward significant greenhouse gas reduction legislation into law in Oregon. They and Engineers for a Sustainable Future, an educational non-profit focused on climate issues, have co-signed this letter.

Sincerely,

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Metro Climate Action Team Steering Committee
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Engineers for a Sustainable Future