

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON
LC 79

In the Matter of
NORTHWEST NATURAL GAS
COMPANY, dba NW NATURAL,
2022 Integrated Resource Plan

FINAL COMMENTS BY
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CLUB

Climate Advocates' Final Comments

May 5, 2023

I. Introduction

Green Energy Institute at Lewis & Clark Law School, Climate Solutions, Columbia Riverkeeper, Community Energy Project, Electrify Now, Metro Climate Action Team, Natural Resource Defense Council and Sierra Club (jointly, “Climate Advocates”) write in strong support of many of the recommendations offered by Public Utility Commission Staff (“Staff”) in their most recent filing on NW Natural’s (“the Company”) 2022 Integrated Resource Plan (IRP). We highlight the recommendations below that we ask the Commission to adopt and apply to all natural gas utility IRPs.

In addition to supporting the bulk of Staff’s comments, we reiterate the following recommendations which differ from Staff’s position on these issues:

- Object to any recommendation that NW Natural make purchases of Renewable Thermal Certificates (RTC) in lieu of Community Climate Investments (CCI);
- Object to any acknowledgement of the Forest Grove uprate; and
- Support a third-party study to compare dual-fuel heat pumps (i.e., heat pumps paired with **an existing gas furnace**) to stand-alone gas furnaces and extended-capacity heat pumps, and request a stakeholder workshop to further explore the study.

Finally, we support the comments submitted by the Linnton Neighborhood Association about their seismic concerns related to facilities located at the CEI Hub, including NW Natural’s LNG coldbox.

II. Climate Advocates Strongly Support Many of Staff’s Recommendations

Climate Advocates express our appreciation for Staff’s consideration of our recommendations for regulatory changes that could help ensure a just and equitable energy transition. We are especially excited about Staff’s willingness to explore Performance Incentive Mechanisms (PIM) that would avoid the need for distribution system uprates in certain circumstances.¹ We also look forward to the results of the Synapse and Cadmus studies, and are pleased to see that Staff plans to engage the UM 2178 (“Natural Gas Fact-finding Investigation”) participants in establishing next steps. We also understand the need to prioritize reducing risks associated with new investments before discussing other risk-sharing opportunities, but we urge the Commission to consider how it can incentivize climate-smart and community-beneficial investments in the short and long term. Finally, we support Staff’s conclusion that it cannot recommend acknowledgment of NW Natural’s long-term plan because the Company failed to “adequately assess or mitigate risk, and does not include reasonably accurate estimates of all relevant inputs,”² supported by an

¹ Staff Public Comments at 29.

² Staff Public Comments at 38.

excellent analysis of each component of the Company’s plan. This is a welcome and realistic critique of the Company’s IRP.

We encourage the Commission to adopt many of Staff’s recommendations and make them applicable to all natural gas utility IRPs. Please see **Appendix A** for a full list of Staff recommendations we support.

While we recommend many more of Staff recommendations than we have deeply explored in these comments, we want to specifically highlight the following as priorities:

- **Recommendation 1:** four years of planning detail in Action Plans;
- **Recommendation 7:** non-acknowledgement of the SB 98 RNG acquisition under Action 5;
- **Recommendation 11:** future IRPs should include a system map with accompanying information about feeders, in-service dates, and lowest recent pressures;
- **Recommendations 16, 17, 18 and 19:** a 10-year distribution plan, exploring alternative solutions to the need for system reinforcements or, alternatively, issuing a peak load reduction RFP, and demonstrating realistic loss of loads if NW Natural seeks to undertake an upgrade project.

We agree with Staff that these specific recommendations will assist the Company, stakeholders, and the Commission to support investments in the near-term that will align with a more sensible long-term plan.

III. Climate Advocates Oppose any Recommendation that Encourages Purchases of Renewable Thermal Certificates in Lieu of Community Climate Investments

We strongly agree with Staff’s Recommendation 7, which concludes non-acknowledgement of SB 98 RNG acquisition under Action 5 is the best outcome. We agree with Staff that CCIs are significantly less costly and less risky as a CPP compliance pathway, and constitute a “no regrets” strategy. We note, in particular, that CCIs will operate to reduce GHG emissions (making the Company’s Climate Protection Program (CPP) obligations easier to achieve) and will offer actual health, safety, and comfort benefits to Oregon ratepayers. We urge the Commission to accept Staff’s Recommendation 7.

However, Climate Advocates oppose a decarbonization strategy that relies on the purchase of Renewable Thermal Certificates (RTCs) in lieu of Community Climate Investments (CCIs), as

set out in Staff’s Recommendation 8. From a climate and health perspective, CCI funds are required to “support projects that reduce greenhouse gas emissions and prioritize benefits for environmental justice communities in Oregon,”³ whereas the RTCs NW Natural has purchased are from sources outside of Oregon offering no economic, emissions, or environmental justice benefits to Oregonians. Perhaps more relevant to the Commission’s role, the potential for policy changes in this landscape puts ratepayers (and the Company) at serious risk of incurring penalties for exceeding the cap established by the Climate Protection Program (CPP) if it selects the wrong compliance pathway.

Purchasing RTCs from other parts of the country does not help NW Natural decarbonize *its* energy system, despite the RTCs purportedly counting for compliance. Additionally, the Company has not properly explored the possibility that these credits may not be an acceptable compliance mechanism under future Oregon laws. The Oregon Environmental Quality Commission or legislature could more properly conclude that RNG emissions should be calculated on a lifecycle basis, require RNG projects to reduce GHG emissions *in Oregon* or establish other regional limitations on projects, or cap the number of RTCs that might be used for compliance. If the Company cannot purchase an unlimited number of RTCs for compliance, it risks non-compliance with the CPP.

In fact, the Oregon Department of Environmental Quality has undertaken a 2023 Climate Rulemaking to discuss whether specificity or clarifications are necessary for reporting RNG, as well as clarifying verification requirements.⁴ Ultimately, the more NW Natural relies on RTCs to meet compliance goals, the greater the risk that it will need to resort to uneconomical methods to meet compliance targets and pass those costs to ratepayers, or face penalties for failing to comply with the cap.

IV. Climate Advocates Object to Any Acknowledgement of the Forest Grove Uprate

The Climate Advocates reiterate our initial recommendation for the Commission to not acknowledge the Company’s Forest Grove Feeder uprate. The Company’s approach to the project, response to stakeholder feedback during the technical working groups, and behavior in response to low pressure in the area this year is extremely problematic. First, the Company failed to signal to the Commission in any of its past IRPs or Updates that the Forest Grove Feeder was at risk. Second, stakeholders requested nearly a year ago that the Company engage in an alternatives analysis in lieu of planning investments in the uprate, noting CPP risks, the likely outcome of the UM 2178 docket, and Commissioners’ comments on NWN’s 2018 IRP Update directing the company to scrutinize its long-term capital investments and consider expediting

³ OAR 340-271-0010(3)(e).

⁴ Oregon Dep’t of Env’tl. Quality, Rulemaking Overview, 2023 Climate Rulemaking (Mar. 2, 2023), available at <https://www.oregon.gov/deq/rulemaking/Documents/C2023ruleBrief.pdf>.

efficiency efforts.⁵ This feedback, combined with the fact that NWN did not activate available interruptible loads in January, choosing instead to bypass a regulator at additional cost to ratepayers, raises serious concerns about the prudence and level of risk associated with the uprate (not to mention being egregious) to warrant non-acknowledgement of this proposed investment.

The Company has not, and appears unwilling, to consider all available resources contrary to IRP Guidelines which require it to consider “[a]ll known resources for meeting the utility’s load” including supply side and demand-side options.⁶ In its Reply Comments, the Company argues that Staff’s request to analyze uncertainties due to current trends misses the point because new DER and demand-side solutions do not decrease the number of customers the system is serving.⁷ Moreover, the Company argues that it has never experienced a decrease in the number of customers in that area. However, the Company can incentivize non-pipeline alternatives, including electrification, to meet its overall system need.

NW Natural did not consider all available resources

NW Natural’s IRP demonstrates that the Company continues to undervalue non-pipeline alternatives (NPA) in resolving distribution challenges. The Company states that it provided, “an alternatives analysis inclusive of non-pipeline solutions to demonstrate that the Forest Grove feeder uprate is needed.”⁸ However, the only NPA NW Natural considered for the Forest Grove uprate was to curtail interruptible customers – load that the utility should already be curtailing at peak hours.⁹ This suggests that the Company did not consider other commercially-available measures including energy efficiency, residential and commercial demand response, and electrification, each of which provides system and individual customers benefits. The Company was also dismissive of the idea of using supply-side resources, like CNG trucks, as potential resources.¹⁰ The Company provides no data indicating actual demand reductions from interruptible customers in past cold-weather events. Although the Commission Staff asked NW Natural to provide a cost-benefit analysis of NPA for the Forest Grove Uprate, NW Natural declined to provide further analysis.¹¹

In its Reply Comments, NW Natural highlights the most recent cold-weather event on January 30, 2023, in which pressure dropped 53%.¹² Yet, the Company, “did not call a demand response

⁵ Comments to NWN from Electrify Now, Metro Climate Action Team, NRDC, Climate Solutions and GEI (May 20, 2022), copy provided to OPUC Staff and available on file.

⁶ Oregon Pub. Util. Comm’n, Docket No. UM 1056, Order No. 07-047, Guideline 1(a) (Feb. 9, 2007).

⁷ NWN Reply Comments at 61.

⁸ NWN Reply Comments at 6.

⁹ NWN IRP at 384.

¹⁰ NWN Reply Comments at 6.

¹¹ NWN Reply Comments at 72.

¹² NWN Reply Comments at 66.

event through interrupting interruptible customers on January 30, 2023.”¹³ While the Company states that demand curtailment from interruptible customers would still have resulted in greater than a 40% pressure drop, this event indicates that the Company under-utilizes demand response options.

NW Natural’s unwillingness to consider electrification as a potential resource appears to be legal in nature: “[electrification] is a radical transformation of integrated resource planning that requires consideration of its legality and the implications of the request before being adopted.”¹⁴ The Company continues that, “electrification is not a resource available to a natural gas utility to meet the needs of its customers’ natural gas use.”¹⁵

We strongly disagree. First, the Company does not have a coherent and reasonable plan for complying with the state’s Climate Protection Plan, which is an obligation it will have to meet. As CUB noted in its comments, given the uncertainty of future unproven technologies, decarbonization policies, and customer choices, electrification may be the easiest and least expensive pathway for decarbonization. Second, electrification is commercially available and cost-effective today, unlike the bulk of the Company’s supply-side resources of the future (e.g., synthetic methane).

At its base, NW Natural is not applying the same standard to electrification that it is to its methane gas and other fuel resources in the IRP process. Even worse, the Company is discounting the benefits that electrification can provide for its non-electrifying gas customers; electrifying a subset of customers in the Forest Grove area could help ensure service for its remaining customers – without significant and risky investments in system expansion. Demand reductions from electrification would mitigate the pressure drop and enable more reliable gas service for the remaining customers of the Forest Grove feeder.

Targeted electrification can provide a number of benefits to gas customers by obviating the need for new gas system investments that could become stranded. Gas system capital investments are durable, such that new spending may not be recovered for another 40 or 50 years. The Company must understand that the energy landscape has evolved, and electrification will be a critical resource for cost-efficiently achieving emissions reductions and resolving distribution challenges. We also believe the Company is missing potential opportunities to use electrification as a way to continue providing space and water heating services to its existing customers.

In sum, if the company were relying on the analysis it has done to date to support its request for acknowledgement of the Forest Grove update, we would not recommend recovery of this

¹³ NWN Reply comments at 68.

¹⁴ NWN Reply Comments at 20.

¹⁵ NWN Reply Comments at 19.

investment in a future rate case. As things stand today, given the analysis thus far, the company has not made a compelling argument that would demonstrate the level of prudence required in a rate case.

V. Climate Advocates Support a Study to Explore Incentives for Heat Pumps Coupled with Existing Gas Furnaces Only

Staff comments indicate that ETO is proposing a Dual-Fuel Heat Pump Pilot study in coordination with the gas and electric utilities. The aim of the study, according to the NWN's Reply comments, is to "[e]valuate both the present day and future potential emissions and cost savings of hybrid-electric heat pump/natural gas backup HVAC systems relative to primary gas or all electric heating for Oregonians."¹⁶

While we agree with Staff that this study could provide useful information, we support such a study only if it is focused on exploring incentives for adding heat pumps to **existing** gas furnaces in existing homes. ETO currently offers incentives for central AC equipment to be used with existing gas furnaces. Incentives for heat pumps in this situation would provide more energy-efficient home cooling and also reduce use of fossil gas which is consistent with the goals of the CPP.

Dual-fuel systems may play a role as Oregon transitions away from gas heating for buildings, but they cannot be considered to be a destination for Oregon's long-term heating solutions. Because dual fuel systems by definition include combustion of gas, incentives which encourage the long-term use of gas furnaces are not compatible with Oregon's climate goals. For this reason, incentives for dual-fuel systems with new gas furnaces should not be considered.

Because incentive dollars are limited, it is critical that this study be designed to understand how to optimize dollars spent on real benefits to communities. In this case, that means identifying design parameters for a dual fuel system that specifically incentivizes 1) achieving state climate requirements through the CPP while 2) reducing financial risk to ratepayers in the long term, and 3) avoiding solutions that trap ratepayers (likely a subset of lower-income ratepayers with fewer options to electrify) into gas heating in perpetuity.¹⁷ We expect that this study will show that heat pumps added to existing gas customer homes will help reduce individual energy consumption and ultimately help reduce peak load on the system, reducing the need for additional, expensive and risky gas system upgrades.

¹⁶ NWN Reply Comments at 116.

¹⁷ The incentivized solution should avoid the situation where the existing gas furnace would potentially fail before the new heat pump since that scenario would likely lead to new gas furnaces being purchased instead of upgrading the entire system to a more efficient and less carbon intensive all-electric system.

Climate Advocates agree that if this study is to be done, it should be conducted by a third party (e.g., Energy Trust of Oregon), and would hope that this is an opportunity for new customer segments to become familiarized with heat pump technology, while also reducing consumption of fossil fuels.

Since the stated goal of the study is to compare dual fuel systems to primary gas heating and all electric heating systems, it is critical the all-electric systems chosen for the comparison utilize heat pump equipment that would qualify for IRA tax incentives since that is the new benchmark for federally-supported heating systems.

Because there is very little published information about the focus and extent of this study, stakeholders request additional opportunity to comment as more is known about the proposed study, or the ability to participate in formulating the study details. We request that the Commission direct NW Natural to hold a stakeholder workshop before the study launches, to allow Climate Advocates and other stakeholders to get responses to these unanswered questions and express any additional concerns and recommendations.

Community Energy Project (CEP), one of the Climate Advocate organizations, has experience installing heat pump systems for low-income customers, and has found that there is a learning curve for both contractors and customers in proper utilization of heat pumps. CEP specifically recommends that the study:

- Include the impacts of contractor education regarding selling, proper sizing, installation of heat pumps as well as consumer education on the utilization of heat pumps.
- Measure whether adding heat pumps to an existing gas system reduces gas consumption in addition to air conditioning. Will smart technology be able to inform Energy Trust about how it is used once installed?
- Inform customers about the limitations of dual-fuel systems. For example, note that a lower quality heat pump, one that would not work in the lowest temperatures, would be installed with a gas furnace already in place. This could make it seem as if heat pumps do not work well without a gas furnace as backup, which is inaccurate. Consumers should be provided with this information as part of installation so that they know what is available with properly-sized and installed stand-alone all-electric heat pump systems.

V. Conclusion

The Synapse final report, attached as Appendix A to Staff’s final comments, is spot on in recognizing electrification as the “direct competitor” to RNG and the other alternative fuels identified by NW Natural as its supply-side options. However, the Company fails to grapple with the reality that electrification is a competitor and, further, that policies and market trends will

drive its customers toward electrification. The Company's resulting plan fails to provide a realistic consideration of a mix of supply-side and demand-side resources that would be least-cost and least-risk for customers. The thoughtful recommendations identified by Staff will assist the Company (and the other natural gas utilities) in engaging in a more useful planning exercise.

In addition to supporting many of Staff's recommendations for the Company's IRP Update and future IRPs, we hope the Commission will take a hard look at the Forest Grove update investment and consider not acknowledging that investment. At the very least, we hope the Commission will consider disallowing a rate of return for this investment. We also have reservations about any plan that relies on purchasing RTCs over CCIs, when the latter bring real emissions reductions in Oregon that will benefit ratepayers and the company. Finally, we ask for careful consideration of any dual-fuel heat pump pilot project to ensure that it is designed so that CPP outcomes and community benefits can be optimized.

Sincerely,

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APPENDIX A

Climate Advocates support the following recommendations from Staff comments:

Recommendation 1: four years of planning detail in Action Plans;

Recommendation 4: portfolio modeling must consider non-renewal of unneeded firm delivery capacity contracts upon expiration and the retirement of capacity resources as appropriate;

Recommendation 5: discuss the possibility of pairing demand response with a locational demand response program;

Recommendation 7: non-acknowledgement of the SB 98 RNG acquisition under Action 5;

Recommendation 10: future distribution system planning should include a cost benefit analysis for non-pipe alternatives that reflects an avoided GHG compliance cost element consistent with a high-cost estimate of future alternative fuel prices;

Recommendation 11: future IRPs should include a system map with accompanying information about feeders, in-service dates, and lowest recent pressures;

Recommendation 12: provide evidence of the significance of variables influencing demand;

Recommendations 13 and 14: provide an IRP Update that explains use of CNG or LNG trailers as short-term mitigation measures, and explore the Company's contingency plan on cold days;

Recommendation 15: explore opportunities to revise its current interruptible tariff;

Recommendations 16, 17, 18 and 19: a 10-year distribution plan, exploring alternative solutions to the need for system reinforcements or, alternatively, issuing a peak load reduction RFP, and demonstrating realistic loss of loads if NW Natural seeks to undertake an upgrade project;

Recommendations 20, 21 and 22: transparency around RNG procurement scoring and how RNG projects are in the best interest of ratepayers;

Recommendation 23: immediate convening of a stakeholder group to establish a transport customer efficiency program;

Recommendation 26: modeling all relevant distribution system costs and capacity costs;

Recommendations 27, 28 and 29: provide a clear breakout of costs by type and by year in the next IRP, perform a Monte Carlo analysis of the top scenarios, and compare the severity and variability of risk in portfolios;

Recommendation 32: NW Natural should separately demarcate load reductions as a result of efficiency and as a result of electrification in its next IRP;

Recommendation 33: NW Natural should update its avoided costs to reflect the voluntary nature of SB 98 RNG that can be avoided with efficiency;

Recommendations 34, 35, 36, and 37: transparency around RNG cost and risk modeling;

Recommendations 38 and 39: include as a sensitivity high-cost RNG, hydrogen and synthetic gas, and provide a literature review of RNG price and availability forecasts;

Recommendations 40, 41 and 42: refined cost estimate for green hydrogen, use of a third-party expert to estimate syngas cost, and transparency with Technical Working Group about capacity, cost, quantity and availability of electrolyzers, renewable generation, methanation equipment, and CO₂;

Recommendation 43: Commission should indicate whether risk sharing will be considered at cost recovery for any future SB 98 RNG projects.