



Dear Mr. Johnson:

Re:

Northwest Natural Gas Company, dba NW Natural ("NW Natural" or "Company"), appreciates the opportunity to respond to the Washington Utilities and Transportation Commission's ("Commission") July 26, 2021 Notice of Opportunity to File Written Comments ("Notice") in docket U-210553. NW Natural strongly supports an open and transparent study process that holistically considers the overall energy system (both natural gas and electric) in determining pathways to decarbonization. including evaluating impacts to our customers, the economy, utilities, and disadvantaged communities.

NW Natural has long supported the development of programs that effectively and equitably address the existential crisis of climate change, and looks forward to working with stakeholders to do our part to help Washington achieve deep decarbonization. For example:

- NW Natural has replaced all of its bare steel and cast-iron pipe that could cause safety issues and potential increased leakage of methane in the atmosphere. Through this accelerated replacement, the Company now has one of the tightest pipeline distribution systems in the country.
- NW Natural was the first stand-alone gas utility to offer our customers a voluntary carbon offset program. The Company has over 67,000 customers enrolled in the program in Washington and Oregon, who have funded over one million metric tons of emissions reductions.
- In 2019, NW Natural incorporated the greenhouse gas emissions of its natural gas suppliers into its gas purchasing practices by using publicly available Environmental Protection Agency data. NW Natural prioritizes purchasing from suppliers that report lower greenhouse gas emissions from production. These actions reduce the lifecycle carbon intensity of the gas the Company provides to customers.
- Finally, NW Natural is aggressively pursuing renewable natural gas, hydrogen, and energy efficiency in order to be a carbon neutral energy provider by 2050.

The Company looks forward to fully participating in this process and addresses the Commission's questions in the Notice below.

## 1. Additional Considerations Beyond Those Required in Section 143(4) of the Appropriation Act

The considerations listed in section 143(4) of the Appropriation Act, including how (not whether) natural gas utilities can decarbonize and focusing on the natural gas and electric systems as a whole, are critical to ensuring that the study fully captures the impacts of different decarbonization pathways. Focusing primarily on the natural gas system, in addition to being inconsistent with section 143(4), will lead to incomplete results that do not accurately reflect the impact of certain decarbonization pathways, such as building electrification, on customers.

NW Natural believes that the study should consider resiliency in its evaluation of the costs and benefits of various decarbonization pathways under section 143(4). Ensuring that essential natural gas and electric services can continue to be delivered with as little interruption as practicable is critical during severe weather events, such as a prolonged winter storm or a heat wave. The study should evaluate how different decarbonization scenarios impact the ability of the overall energy system to withstand, as well as recover from, these types of weather events.

## 2. Study Development and Consultant Engagement

NW Natural strongly supports an open and transparent study process that does not rely on preconceived assumptions regarding the best path to decarbonize, but rather engages in a rigorous, thoughtful, and data-driven process that carefully considers different decarbonization pathways.

Going forward, the Company is interested in better understanding the specific areas where the Commission believes that engaging an outside consultant would be helpful, and respectfully requests the opportunity for stakeholders to comment on the scope of the consultant's work, as well as how the consultant plans to solicit and use stakeholder feedback. In keeping with the open and transparent process envisioned by the Commission, opportunities to meaningfully comment on the consultant's work will be vital, and the Commission should ensure that any consultant it hires has a plan for incorporating such feedback throughout this process.

## 3. Relevant Resources to Evaluate Decarbonization Strategies

In early 2018, NW Natural contracted with Energy and Environmental Economics (E3) to evaluate different strategies to achieve an 80% reduction in greenhouse gases (GHGs), aka deep decarbonization by 2050. This study, which uses a NW Pathways model in addition to a suite of other models, differs from other deep decarbonization studies in that:

- Cost impacts from building electrification under cold temperatures are examined in depth;
- Natural gas heat pumps are included in one scenario; and,
- A wide range of electric heat pump performance and costs are considered.

The scenarios are designed around four different heating options in buildings: gas furnaces, natural gas heat pumps, electric heat pumps, and cold climate heat pumps. All scenarios must meet the same emissions target and follow a similar trajectory. Electrification of transportation is almost completed by 2050 in all scenarios.

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The study findings highlight:

- While economy-wide scenario costs in 2050 are similar for three scenarios, the electric heat pump is highest cost due to the winter peak capacity need.
- Widespread deployment of electric heat pumps leads to a 5 to 10 times increase (17,000 to 37,000 MW) in winter peak electricity demand relative to gas scenarios.

In addition to looking at the Pacific Northwest, the study also looks at state-specific load by scenario for both Washington and Oregon. The findings are similar to the combined look, but one can see that costs are higher in Washington driven in part by aviation fuel needs.

The report is available at:

https://www.ethree.com/wp-content/uploads/2018/11/E3 Pacific Northwest Pathways to 2050.pdf

NW Natural appreciates the opportunity to provide these comments, and we look forward to the thoughtful, collaborative, and productive discussions in this proceeding.

Sincerely,

/s/ Zachary Kravitz Zachary Kravitz Director, Rates and Regulatory Affairs NW Natural 250 SW Taylor Street Portland, OR 97204 503-610-7617 zachary.kravitz@nwnatural.com