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DEPARTMENT OF COMMERCE

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August 13, 2021

VIA ELECTRONIC FILING

Mark Johnson, Executive Director/Secretary
Washington Utilities and Transportation Commission
621 Woodland Square Loop SE
Lacey, WA 98503

RE: Relating to the Commission's examination of energy decarbonization impacts and pathways for electric and gas utilities to meet state emissions targets, Docket U-210553

Mr. Johnson,

The Washington State Energy Office ("Energy Office") appreciates the opportunity to file comments on the Commission's examination of energy decarbonization impacts and pathways for electric and gas utilities to meet state emissions reduction targets.

The Energy Office, part of the Washington State Department of Commerce, supports the development and implementation of energy and climate policies. Earlier this year it published the [2021 State Energy Strategy](#)—a comprehensive, economy-wide roadmap to meeting the state's energy and climate goals while maintaining affordable, equitable and reliable energy services. This strategy informs the Energy Office's comments in this proceeding. In these comments, the Office responds to questions posed in the July 26 notice and August 9 workshop.

Additional considerations

We believe that the issues identified in the workshop notice are the important ones to guide the work. Regarding additional considerations, we would like to suggest that the Commission explicitly consider the requirements and impacts of the Climate Commitment Act. This is the state's newly enacted cap-and-invest program. Natural gas distribution companies are covered entities under this law, and the law will have significant effects on the companies and their customers as the number of allowances decreases over time.

Considerations for the development of the study and consultant engagement

In scoping the requirements of any outside expertise that the Commission may retain, it is important first to be clear about what should be expected of the natural gas distribution companies. In this inquiry the gas companies should be required to develop and submit transition plans illustrating how they would meet the state's energy policies, emissions limits, and environmental laws. The gas companies have extensive knowledge of their systems, the economic status of their customers, the current and future technologies available for domestic and commercial end uses, and the alternatives to fossil natural gas. Both Puget Sound and Avista also operate electric utilities, providing them with additional

data and expertise. This inquiry provides the gas companies with the opportunity to present the decarbonization pathway that they believe best serves the interests of the public, their customers, and their shareholders. It likewise provides the opportunity to present transition plans consistent with any corporate goals or aspirations of the gas companies and their owners.

The Commission should oversee the work of the gas companies by retaining a consultant capable of evaluating the assumptions, inputs, and models used by the gas companies in their energy modeling and transition plans. This oversight should include a parallel, independent decarbonization pathway modeling effort using publicly available data and models. The consultant should therefore have the ability to model the uses of natural gas and assess the ability of the utilities to reduce emissions from the natural gas system. This technology-based study should include a technical and economic assessment of the potential reductions from energy efficiency and conversion of gas-fired equipment to electricity or non-emitting thermal heat sources, as well as the feasibility of maintaining the natural gas system while substituting some or all the fossil gas with synthetic or biogenic gas.

In addition to this technical expertise, it would benefit this inquiry to retain a consultant with expertise in the regulatory and public policy issues that likely to arise in evaluating gas transition options. The Commission already has extensive expertise in this area, but outside expertise would help it and participants consider regulatory and policy issues that do not regularly arise in the Commission's regulation of the rates and service of gas distribution companies. These topics may include changes in depreciation rates, the design of rates to protect captive customers during transition, revisions to the process and content of integrated resource plans, the design of energy efficiency and fuel conversion programs, and potential impacts on overburdened communities and low-income customers. A regulatory and policy consultant will complement the technical and financial analysis performed by an expert in energy modeling.

How the Commission should determine a utility's share of GHG reductions

We see three approaches the Commission could use to determine a utility's share of greenhouse gas reductions. The first would be apply the state's greenhouse gas emission limits to each gas distribution company's 1990 emissions. The statewide limits are expressed using a 1990 baseline: a reduction of 40% by 2030, 70% by 2040, and 95% by 2050.¹

A second approach is to develop individual company shares using recent emissions as a baseline. For example, the Climate Commitment Act uses 2015 through 2019.² This approach may result in transition plans that more closely align with the obligations that gas distribution companies will face as covered entities under the Climate Commitment Act.

A third approach would be to develop emissions reduction levels based on a comprehensive, economy-wide analysis of deep decarbonization pathways for the state, comparable to the energy modeling performed in support of the 2021 State Energy Strategy. This approach would acknowledge that strictly proportionate reductions by every firm in every sector is likely not the most cost-effective pathway to achieving the required overall objectives. Some end uses and sectors can reduce emissions more quickly or at lower cost than other sectors. This analysis could yield emissions reduction levels for gas

¹ <https://ecology.wa.gov/Air-Climate/Climate-change/Greenhouse-gases>

² Chapter 316, Laws of 2021, sections 9 and 10.

distribution companies that are either larger or smaller than a calculation based on proportionate reductions from either 1990 levels or a recent baseline period.

Under any of these approaches, the reduction amounts for each gas distribution company should be specific to the residential and commercial sectors served by these companies. The Commission should not, for example, excuse gas distribution companies from reductions in commercial and residential emissions based on changes in the use of fossil gas in electric power generation. Nor should reductions in these sectors be affected by changes in fossil gas use in industry.

References that may be relevant to the Commission's examination

We would like to offer the analysis and recommendations of the 2021 State Energy Strategy as guidance for the work in this proceeding. The energy modeling conducted for the strategy examined, on an economy-wide basis, alternative pathways to meeting the state's greenhouse gas emissions limits. One of the key findings is that the state's emissions limits cannot be achieved while continuing current uses of natural gas. To meet the state's greenhouse gas reduction limits, emissions from gas in buildings must decline by 14% by 2030 and continue to decline at an increasing rate through 2050.³

In broad terms, these reductions in fossil gas combustion could be accomplished either by taking the carbon out of the gas or by taking the gas out of the energy system. The first approach replaces fossil natural gas with renewable or synthetic gas. The second approach replaces gas-fired equipment with high-efficiency electric equipment. Both approaches assume the same levels of appliance efficiency by technology. The cost of investments made in gas distribution infrastructure are substantial and considered sunk costs in either scenario.

The strategy's deep decarbonization modeling analysis found that replacing fossil natural gas with clean electricity may serve the state's consumers and businesses better than a scenario where the natural gas system remains in place and non-fossil gas is manufactured and delivered by pipeline to residential and commercial customers. Retaining fossil natural gas as an energy form requires more overall energy, and those emissions would have to be made up by achieving even deeper emissions reductions in the transportation sector

Under either scenario, the transition from fossil natural gas can be accomplished while maintaining affordable energy costs. Our overall energy cost would fall within the historical range of 4-7% of gross state product. In both cases, the amount of fossil natural gas delivered in 2050 is about 90% lower than in the business as usual scenario.

The state energy strategy suggests that the transition from fossil natural gas should be gradual and well-planned. A carefully planned transition over two to three decades gives the electric system plenty of time to plan and construct the expanded transmission system and renewable generating stations that we will need. New electric water heaters will be grid-enabled and help balance the electric grid, and low-energy standards for buildings will reduce winter and summer peaks.

The transition should also be well planned to ensure that low-income households are not left stranded, paying for legacy investments in the distribution system. The transition should also be well planned to

³ [Washington 2021 State Energy Strategy](#), page 68

ensure that low-income households are not left stranded, paying for legacy investments in the distribution system.

Additional information that should be provided by the gas utilities

As discussed earlier, each gas distribution company should be required to provide an analysis and plan for the transition of fossil natural gas consistent with the state's greenhouse gas emissions limits and other state energy and climate policy. These analyses should consider all the items specified in Section 143(4) of the Appropriations Act. They should be prepared with participation by interested parties and oversight by the Commission. Existing processes for integrated resource plans provide a good model with regard to stakeholder participation, access to assumptions, inputs, and models, and the opportunity to examine alternative scenarios and assumptions.

Conclusion

The Energy Office looks forward to engaging with the Commission, the gas distribution companies, and other interested parties as this inquiry progresses. Please direct any questions concerning these initial comments to Austin Scharff, energy policy specialist, at Austin.scharff@commerce.wa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Glenn Blackmon".

Glenn Blackmon, Ph.D.
Manager, Energy Policy Office