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**VIA ELECTRONIC FILING**

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Executive Director and Secretary  
Washington Utilities and Transportation Commission  
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**RE: Notice of Opportunity to File Written Comments  
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**

The Renewable Hydrogen Alliance (RHA) appreciates the opportunity to file comments in the above referenced Docket.

RHA is a non-profit trade association with over 70 members whose mission is to promote the use of renewable electricity to produce hydrogen and other climate neutral electrofuels. Its membership includes electrolyzer, fuel cell and various vehicle class type manufacturers, electric and natural gas utilities, fueling station developers, independent power producers, hydrogen project developers and other members with an interest in the renewable and electrolytic hydrogen (hydrogen produced using electrolysis) sector.

**RESPONSES TO QUESTIONS FOR CONSIDERATION**

*1. Section 143(4) of the Appropriation Act includes the following required considerations as part of the Commission’s examination:*

*a. How natural gas utilities can decarbonize;*

One option that RHA requests the Commission analyze in this docket is the opportunity to continue to utilize the natural gas infrastructure as energy storage and delivery infrastructure by considering substituting or displacing fossil gas with renewable natural gas, renewable and/or green electrolytic hydrogen and synthetic natural gas manufactured from renewable and/or green electrolytic hydrogen. RCW 80.28.385 and RCW 80.28.390 establish certain criteria under which a gas utility may establish a renewable natural gas program. Both sections include a provision in the definition of renewable natural gas that states: *“The commission may approve inclusion of other sources of gas if those sources are produced without consumption of fossil fuels.”* Renewable hydrogen fits this category perfectly. We would also ask for consideration of

electrolytic hydrogen which was included by the Legislature in the 2021 capital budget. Capital budget funding is appropriated for a hydrogen fueling station and a fuel cell as an element of a microgrid pilot project, and both of these projects are meant to use *“renewable hydrogen and hydrogen produced electrolytically in Washington.”*

One aspect of this analysis is already under review at the Commission pursuant to HB 1257 (2019 legislative session) where the Commission is tasked with adopting injection standards for renewable natural gas. In addition, RHA filed comments in that docket to include convening a stakeholder group to review and participate in adopting standards for injecting hydrogen into natural gas pipelines as an *“other sources of gas . . . produced without consumption of fossil fuels”*. (RCW 80.28.385)

*b. The impacts of increased electrification on the ability of electric utilities to deliver services to current natural gas customers reliably and affordably;*

Analysis of the impacts of current natural gas customers switching to electrification should also include those impacts on the electrical grid from increasing transportation electrification that may be happening simultaneously. Renewable and electrolytic hydrogen should be evaluated as an investment in a non-wires solution that can store and redispatch energy uncoupled from the time of energy demand, can also be incorporated into a demand response program, and thus may assist in “peak shaving” on the T&D system. As a result, it may offset and alleviate the need for expensive transmission and distribution upgrades and additional storage capacity due to the increased reliance on variable energy resources. Variable energy resources do not and cannot generate electricity coincident with the time of demand and the increase in peak demand on the distribution system. The use and value of renewable and electrolytic hydrogen as a storage resource for redispatch of energy both in time and location, and across increasingly electrified sectors must be analyzed as a tool to reduce the impact of increased electrification on electric utilities’ ability to deliver services in a cost-efficient manner.

*c. The ability of electric utilities to procure and deliver electric power to reliably meet that load;*

No response.

*d. The impact on regional electric system resource adequacy, and the transmission and distribution infrastructure requirements for such a transition;*

The Washington 2021 State Energy Strategy speaks to the need to produce and utilize hydrogen as a way to ensure that the state’s electricity supply system maintains reliability and resource adequacy. It states in part: *“For example, an important cross-sector finding is that clean fuels, such as renewable hydrogen and clean synthetic or biogenic fuels, will be key to decarbonization. Washington can produce these products using clean, renewable or non-emitting electricity, carbon captured from industrial*

*processes and fuels derived from biomass and other biogenic feedstocks (see Figure 23). Doing so can improve the flexibility of the electric system to manage high levels of intermittent renewable power generation. These fuels will replace fossil fuels in uses that cannot be quickly or completely converted to direct use of electricity.”*

Source: <https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

See also our response to subsection (b.) above.

*e. The costs and benefits to residential and commercial customers, including environmental, health, and economic benefits.*

No response.

*f. Equity considerations and impacts to low-income customers and highly impacted communities; and*

The costs to upgrade and expand electricity transmission and distribution infrastructure will be borne by all customers of the utility, including those of low and moderate income, as well as commercial and industrial customers. Using hydrogen as a storage and delivery mechanism and as a non-wires alternative to expanding the T&D infrastructure to meet the peak time-of-day demand resulting from electrification of transportation and natural gas uses will reduce the burden on all customers. The burden would likely be reduced more so for low and moderate income customers. This is due to the fact that the transition to battery electric vehicles, and electrification in other sectors and in buildings typically benefits higher income customers before low and moderate income customers, if at all.

*g. Potential regulatory policy changes to facilitate decarbonization of the services that gas companies provide while ensuring customer rates are fair, just, reasonable, and sufficient.*

Storage and redispatch of energy through electrolytic and renewable hydrogen, renewable natural gas and non-fossil synthetic natural gas will require adjustments and amendments to current regulatory policy, though we do not have any specifics to offer. We would like to reserve our opportunity to comment on this as this Docket moves forward.

*2. Besides any additional considerations provided above, what else do you think the Commission should consider during the development of the study and consultant engagement?*

RHA recommends that a consultant be selected who has broad analytical expertise, preferably has some knowledge of hydrogen uses in the energy sector, and who has done previous work analyzing the impacts to electric and gas utility resource portfolios

relative to energy decarbonization policy. It will also be important that whatever consultant and/or firm is considered that the team have at least one member with expertise in utility low income bill assistance programs, their eligibility criteria and how the programs work.

## CONCLUSION

Thank you again for the opportunity to comment. We are pleased with and very supportive of the Commission's efforts to examine feasible and practical pathways for the electricity and natural gas utilities to reduce their greenhouse gas emissions. As Washington State now has a full suite of comprehensive climate policies impacting electricity and natural gas utilities, as well as other sectors, it is key that all options, tools and pathways to achieve GHG reduction targets and their costs to customers be fully evaluated. It will also be important to allow for, remain aware of, and incorporate into the Commission's study the rapid developments in technologies and applications of those tools such as renewable and electrolytic hydrogen, and their declining cost curves, in meeting decarbonization targets. Such developments justify including these analyses and opportunities in this Docket in order to pursue an "all of the above", cost effective, practical, but urgent decarbonization pathway for the state.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michelle Detwiler", is placed on a light blue rectangular background.

Michelle Detwiler  
Executive Director