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February 12, 2025

Columbia Riverkeeper's Testimony to the Senate Committee on Energy and Environment in Support of SB 685-1. Submitted by Teryn Yazdani, Staff Attorney.

Dear Chair Sollman, Vice-Chair Brock Smith, and Members of the Committee,

Thank you for the opportunity to provide written testimony in support of Senate Bill (HB) 685 and the -1 amendment, establishing a minimum public notice for hydrogen blending projects in residential gas systems. Columbia Riverkeeper is a nonprofit organization dedicated to protecting and restoring the Columbia River and all life associated with it, from its headwaters to the Pacific Ocean. Columbia Riverkeeper has over 36,000 members and supporters who live, work, and recreate along the Columbia, including thousands of members and supporters in Oregon. We advocate for strong climate protections and a just transition from fossil fuels in solidarity with the region's Tribal Nations through legal, policy, and organizing efforts.

Oregon's existing regulatory framework lacks necessary oversight and public notice requirements for blended hydrogen projects that have real impacts on safety, the environment, and public health. The state's current gas infrastructure is not built with blended hydrogen in mind, resulting in potentially dangerous outcomes. In a residential context, blended hydrogen projects can result in pipeline embrittlement by eroding gas distribution pipes in homes, increasing leakage risks. Additionally, there are several concerns associated with blended hydrogen's impacts on residential appliances. Studies suggest that some appliances cannot tolerate even the slightest blends,[1] resulting in both safety and potentially steep economic impacts. This is a particular concern in older homes with aging appliances. While hydrogen blends below six percent are generally safe, higher percentage blends added to the natural gas stream result in greater risks of pipeline leaks, pipeline embrittlement, stove and water heater malfunctions, and explosions.[2] Finally, there are several environmental concerns with blended

[1] Melaina, M. W., et al. "Blending Hydrogen into Natural Gas Pipeline Networks: A Review of Key Issues." *National Renewable Energy Laboratory*, U.S. Dept. of Energy, Mar. 2013, https://www.nrel.gov/docs/fy13osti/51995.pdf.

[2] Hydrogen ignites more easily than methane alone. This increases the danger of explosions in residential buildings. Methane leaks inside buildings when appliances are in use and when they are turned off; added hydrogen could make these leaks more dangerous.

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hydrogen and its use outside of hard-to-electrify sectors. While natural gas proponents try to paint its use as a cleaner energy option, the reality is much more complicated and depends highly on the type of hydrogen produced.[3] For example, in the Southeast Portland blended hydrogen project, the blended hydrogen used is classified as "turquoise hydrogen," meaning it is derived from fracked gas. Using blended hydrogen with methane—an extremely potent climate-forcing gas[4]—only prolongs our dependency on fossil fuels.[5] In the face of the climate crisis, Oregon should stay committed to being a climate leader and encouraging innovative, just climate solutions rather than continued reliance on harmful systems.

To date, there have been at least two proposed hydrogen-blending projects in Oregon—the Eugene Oregon Bethel Project and the Southeast Portland Project. Both projects failed to give impacted residents adequate notice and no educational resources about impacts of blended-hydrogen in their homes. NW Natural's lack of public notice and process was a severe oversight and impeded the public's ability to make informed decisions about their energy consumption. SB 685-1 focuses more specifically on providing impacted communities, the Public Utility Commission, and local fire and health departments with increased notice for hydrogen-related projects. This bill would begin to address concerns with blended hydrogen projects by requiring greater transparency, education, and safety preparation for these projects. **This version of the bill is already a major concession. However, the -1 amendment results in a common sense bill addressing the very real concerns while still accommodating industry.**

Columbia Riverkeeper strongly urges you to support and pass SB 685 and the -1 amendment. Thank you for the opportunity to provide testimony for this important issue.

Sincerely,

Teryn Yazdani
Staff Attorney, Columbia Riverkeeper

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[3] There is a "rainbow of hydrogen" used to describe the different methods and feedstocks to produce hydrogen. Broadly, it ranges from "green hydrogen," produced through electrolysis of water powered by renewable energy (no fossil fuel usage) to "brown hydrogen," produced from coal/lignite with no carbon dioxide captured in the process and beyond. *See e.g.*, Carra Fogler, *Hydrogen: Future of Clean Energy or a False Solution*, Sierra Club (Jan. 4, 2022), https://www.sierraclub.org/articles/2022/01/hydrogen-future-clean-energy-or-false-solution; *see also* Heather Smith, *The Hydrogen Rainbow, Explained*, Sierra Club (May 14, 2023), https://www.sierraclub.org/sierra/2023-1-spring/stress-test/hydrogen-rainbow-explained.

[4] Over a 20-year timeframe, methane is 90 times more effective than carbon dioxide at trapping heat in the atmosphere.

[5] *See* Monica Samayoa, *NW Natural ordered to phase out new gas connection subsidies by 2027*, OPB (Oct. 28, 2024), https://www.opb.org/article/2024/10/28/nw-natural-gas-oregon-public-utilities-commission-subsidies/.