

# Testimony to Senate Committee on Energy and Environment Support SB 685 to Ensure Transparency on Hydrogen Uses

February 7, 2025

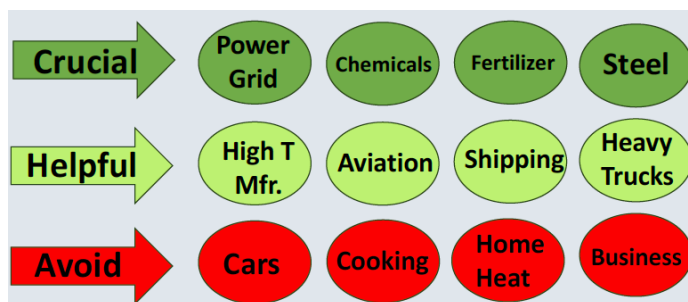
Chair Sollman, Vice-Chair Brock Smith, and members of the Committee:

My name is Dr. Pat DeLaquil. I am an energy system modeler and climate policy analyst, and I organize with MCAT (Mobilizing Climate Action Together), which is a community of volunteers working on advancing a healthy climate and a green economy for future generations.

I am speaking today in support of SB 685 to require a public utility to obtain authorization from the Public Utility Commission to develop or carry out a project that involves the production or use of hydrogen in this state, and provides criteria that the commission shall use to evaluate a proposed project.

Oregon is a leader in the clean energy transition that will both help mitigate future climate impacts, build new local industries and create a more resilient energy system. The key elements of this transition, as identified in authoritative reports from dozens of groups studying decarbonization pathways includes achieving 100% clean electricity generation, electrifying cars, trucks, trains and buses, converting residential and commercial buildings to electricity, decarbonizing industry where feasible, moving to low-carbon and carbon-free chemical fuels, and developing carbon capture with safe geologic sequestration to mitigate remaining emissions while moving towards long-term atmospheric carbon drawdown.

These studies show that methane use must be phased out in order to meet climate targets, and they also show the need for carbon-free chemical fuels, such as hydrogen. However, there are beneficial and non-beneficial uses of hydrogen, as shown in the figure below adapted from the Oregon Department of Energy's *Renewable Hydrogen Study*<sup>1</sup>.



Beneficial H<sub>2</sub> applications are in heavy industry, grid storage and some forms of transportation. H<sub>2</sub> is economically uncompetitive and offers little or no climate benefit in residential or commercial settings. Figure modified from ref. 1.

There are crucial, high-value applications of clean hydrogen, including making fertilizers and other chemicals, steel production and long-term storage for peak power generation. Hydrogen also has a role

<sup>1</sup> RENEWABLE HYDROGEN IN OREGON: Opportunities and Challenges, Submitted to the Oregon Legislature by the Oregon Department of Energy, November 15, 2022.

in long-distance heavy transport, including ships, trains and planes. However, there are many possible applications that are not economic because electrification already provides a lower cost, lower risk solution. These non-economic solutions include cars and light trucks, and heating and cooking for homes and businesses.

SB 685 requires a public utility to obtain authorization from the Public Utility Commission to develop or carry out a project that involves the production or use of hydrogen in this state, and requires that the commission evaluate a proposed project relative to: (a) State energy and climate policies; (b) Safety and maintenance; (c) Cost effectiveness; (d) Health and environment impacts; and (e) Emergency management. SB 685 is needed as evidenced by recent actions by Northwest Natural in Southeast Portland.

I urge you to support SB 685 to ensure that the resources of our public utilities are directed to the beneficial uses of hydrogen, especially heavy industry, which provides significant high-value decarbonization demand with minimal infrastructure investment.

Sincerely,

Dr. Pat DeLaquil  
Gresham, OR

