



March 17, 2023

Senate Committee on Energy and Environment

RE: PPGA comments on SB 868

Chair Sollman and Members of the Committee:

On behalf of the Pacific Propane Gas Association (PPGA), which represents propane marketers, suppliers and equipment manufacturers across Oregon, we appreciate the opportunity to provide feedback on propane in general and on SB 868. Our members provide clean-burning and critical energy to residential, commercial, and agricultural customers in the state. Oregon's propane industry provides good-paying jobs and generates more than \$541 million in economic activity annually.¹ The PPGA agrees there is a compelling need to combat climate change and believes propane is part of the solution to reduce greenhouse emissions in Oregon.

General Comments

I. Clean American Energy

Propane can play an important role in Oregon's clean energy transition and future. It can help the state achieve many of its near- and long-term environmental and climate health goals. Propane burns cleanly, efficiently and has a low-carbon content.² Propane's environmentally friendly attributes have long been recognized by the federal government and states around the country. It is nontoxic and vaporizes the moment it is released from a pressurized cylinder. As such, and unlike other energy sources, propane presents no threat to soil, surface water or ground water.³ This helps preserve and protect Oregon's critical land and water resources, including our environmentally sensitive waterways. In addition to protecting natural resources from contamination, propane can also prevent their destruction. For example, more than 86,000 households in our state still burn wood to keep warm.⁴ This, despite the fact that wood smoke contains high levels of particulate matter that can negatively affect our respiratory and cardiovascular systems and degrades local air quality.⁵ By comparison, propane's combustion produces virtually zero particulate matter.⁶ Using propane instead of firewood protects trees,

¹ *Propane's Impact on Economy: 2018 Oregon*, National Propane Gas Association, https://www.npga.org/wp-content/uploads/2020/06/OREGON_Propane-1-Pager_2020.pdf

² *Carbon Dioxide Emissions Coefficients by Fuel*, U.S. Energy Information Administration, (Oct 5, 2022), https://www.eia.gov/environment/emissions/co2_vol_mass.php

³ *Propane Fuel Basics*, U.S. Department of Energy, https://afdc.energy.gov/fuels/propane_basics.html

⁴ *House Heating Fuel | B25040*, 2021 American Community Survey, U.S. Census Bureau, <https://data.census.gov/table?q=home+heating+fuel&g=0400000US41&tid=ACSDT1Y2021.B25040>

⁵ *Health And Environment*, Vermont Agency of Natural Resources, Department of Environmental Conservation, <https://dec.vermont.gov/air-quality/compliance/owb/health-and-environment>

⁶ *Acurex Environmental Corporation, Edward Aul & Associates, Inc., E.H. Pechan and Associates, Inc., Emission Factor Documentation For AP-42 Section 1.5 Liquefied Petroleum Gas Combustion*, U.S. Environmental Protection Agency (April 1993), https://www.epa.gov/sites/default/files/2020-09/documents/emission_factor_documentation_for_ap42_section_1.5_liquefied_petroleum_gas.pdf

which are natural carbon sinks, prevents deforestation and a reduction in woody habitat for plants and animals. This is beneficial from not only from a human health and air quality perspective, but an ecological one as well.

II. Direct Use

Oregonians have long relied on propane for space and water heating, fireplaces, cooking and clothes drying. And the direct use of propane is clean and efficient way to consume energy. It is important to remember that electricity, unlike propane, is a secondary energy source that must first be created. Grid electricity is extremely inefficient and energy is lost during each step of the production and delivery process. Although the majority of electricity produced in our state comes from hydropower, natural gas is still the second most relied upon source for electric power generation.⁷ Following power generation, additional energy is lost during the transmission and distribution of that electricity to an outlet for an end-use purpose.⁸ These inherent inefficiencies mean that more GHGs, as well as air pollutants, are released. For context, the federal government's Energy Star Program gives propane a source-site ratio of 1.01, compared to 2.80 for electricity from the grid.⁹ This means it takes 2.80 units of electricity to produce and deliver one unit of energy to a home, compared to only 1.01 for propane. Propane is much more efficient at delivering energy than drawing electricity from the grid. Utilizing a full fuel-cycle analysis, it is clear that the direct use of propane is a clean and climate friendly way to consume energy. And notably, our industry continues to deploy cleaner and more efficient products, including tankless water heaters that use considerably less energy than traditional storage units, and micro cogeneration systems that produce electricity and useful thermal energy simultaneously to achieve maximum efficiency.

III. Energy Reliability & Resilience

American propane production is at record levels.¹⁰ As a result, clean and reliable domestic energy is readily available to consumers. Propane can easily and economically be transported multiple ways, including by pipeline, rail, ship and over-the-road vehicles. Electricity generated at power plants, in contrast, has only one transportation option: electric utility lines. Like all other states, Oregon has its share of power outages and system failures. Using propane for energy intensive applications, such as space and water heater, reduces stress on the electric grid and helps it cope with peak demand.

While Oregon relies heavily on hydroelectric power to generate electricity, it is important to remember that reduced precipitation and drought conditions can lower water levels in reservoirs and decrease the amount of energy these power plants can produce.¹¹ When this occurs, grid operators have to secure power from other sources. And with drought conditions widespread

⁷ *Electricity Data Browser: 2021 Annual Oregon*, U.S. Energy Information Administration, <https://www.eia.gov/electricity/data/browser/#/topic/0?agg=2.0.1&fuel=vtvv&geo=000000000002&sec=008&linechart=ELEC.GEN.ALL-OR-98.A&columnchart=ELEC.GEN.ALL-OR-98.A&map=ELEC.GEN.ALL-OR-98.A&freq=A&start=2021&end=2022&ctype=linechart<ype=pin&rtype=s&pin=&rse=0&maptype=0>

⁸ *Frequently Asked Questions*, U.S. Energy Information Administration, <https://www.eia.gov/tools/faqs/faq.php?id=105&t=3>

⁹ *Energy Star Portfolio Manager, Technical Reference*, U.S. Environmental Protection Agency (October 2020), <https://portfoliomanager.energystar.gov/pdf/reference/Source%20Energy.pdf>

¹⁰ *U.S. Field Production of Propane*, U.S. Energy Information Administration, (February 28, 2023),

https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=M_EPLLPA_FPF_NUS_MBBL&f=M

¹¹ *U.S. Power Plants in Drought*, National Oceanic & Atmospheric Administration (March 9, 2023), <https://www.drought.gov/sectors/energy>

across large swaths of the West, we are already seeing this process play out.¹² This is yet another example of the tremendous resilience value in energy diversity. In addition to electrons generated from cleaner sources, Oregon also needs low-carbon and clean energy molecules, like propane, to increase energy reliability and the overall resilience of the energy sector.

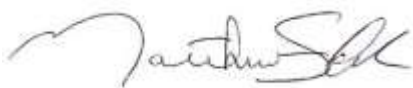
Bill Specific Comments

The PPGA appreciates the work of the Resilient Buildings Task Force and goals behind these bills. The PPGA supports programs that focus on weatherization, adoption of more fuel-efficient appliances and equipment to reduce consumer energy burdens. We currently offer rebates—funded by the industry—to consumers to help efforts to adopt highly efficient appliances and equipment. We believe this legislation would assist more consumers and help provide more meaningful greenhouse gas emissions reductions if there was a wider focus to include all efficient appliances and not a sole focus on heat pumps. The fact remains that costs and consumer demand will mean a heat pump is not right for everyone. We would encourage a more holistic approach in these areas.

Whether a propane boiler, furnace, combi-boiler or tankless water heater, a new propane appliance can offer efficiency levels between 90 – 98%. Installing these appliances would result in meaningful reductions in energy costs and GHG emissions.

Thank you for allowing us to share some information about propane and SB 868. We look forward to continuing making meaningful efforts in reducing greenhouse gas emissions in Oregon.

Sincerely,



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¹² *Id.*