

Submitter: John Perona
On Behalf Of:
Committee: Joint Committee On Ways and Means
Measure, Appointment or Topic: HB5006

Thank you for the opportunity to submit testimony for HB 5006. I write in SUPPORT of the bill.

I am Professor (emeritus) of Chemistry at Portland State University and author of the climate change science/policy text for laypersons titled From Knowledge to Power, which has been widely circulated in Oregon.

I write to urge that funds be allocated generously to support expansion and better regulation of Oregon's energy infrastructure. In particular, I urge you to fully fund the following measures:

Performance-based utility regulation (SB 688)
Thermal energy networks (SB 1143)
Distributed power plants (HB 3609)

Performance-based utility regulation (SB 688) is important because it directs OPUC to offer incentives and impose penalties to induce utilities to meet metrics important to Oregon citizens. These include minimizing greenhouse gas emissions, improving resilience and reliability in response to climate change, and expanding the use of small-scale distributed energy resources such as community solar projects, neighborhood microgrids and demand response programs. A key goal is to reduce utilities' costs while passing some of the savings on to ratepayers.

Thermal energy networks (SB 1143) are important because they connect commercial and residential buildings through pipes that circulate fluids, typically water. Most commonly, the pipes are placed below ground, where the temperature is roughly 55°F year-round. On hot days, the circulating water transfers heat from above ground to below ground, helping cool the buildings. On cold days, the transfer of heat is in the opposite direction. This simple technology saves energy and reduces greenhouse gas emissions, especially for buildings heated by natural gas. It also helps reduce demand for electricity, helping the grid operate more affordably and with greater resilience.

Distributed power plants (HB 3609) are important because they can make an important contribution to meeting Oregon's anticipated increase in electricity demand. Many of the elements of DPPs are located "behind the meter" - on the customer's side of the meter - rather than "front of meter" - where large power plants and transmission lines are found. Examples of "behind the meter" DPP elements are home solar panels, home batteries, bidirectionally chargeable electric vehicles and

"load control" devices like smart thermostats that turn the temperature down at night. DPPs will reduce the investments needed in larger scale grid infrastructure and so reduce costs for residential customers of electricity.

Thank you very much for the opportunity to testify in SUPPORT of HB 5006.