6 March 2025

House Committee on Climate, Energy and Environment
Oregon State Capitol
900 Court Street NE
Salem, OR 97301

Subject: HB 3247 - Oppose

Dear Chair Lively, Vice-Chairs Gamba and Levy, and Members of the Committee:

My name Michael Mitton and I organize with MCAT (Mobilizing Climate Action Together), a community of volunteers working on advancing a healthy climate and a green economy for future generations. I am testifying today in opposition of HB 3247. It attempts to address an issue that may not exist and it could impede progress towards the clean energy future that we all need.

There are a variety of ways that clean energy can effectively replace electricity generated by fossil fuels and provide the same or possibly even better reliability. Utilities and grid operators are adapting to handle the variability of wind and solar through improved operational practices, forecasting, and responsive load management. Grid systems are already addressing variability in electricity demand, and these practices are being extended to manage renewable energy sources.

Two key factors that drive grid reliability are capacity factor and complementarity. Oregon's exceptional mix of clean energy resources (wind, solar, hydro and geothermal) can deliver the reliability that we depend on. Capacity factor refers to the ratio of actual electrical energy produced by a generating unit compared to the maximum possible electrical energy it could produce if operating at full capacity continuously. For example state-of-the-art combined cycle natural gas plants have capacity factors of about 56%. Although comparisons with dispatchable generation are complicated, DOE studies indicate Oregon's southwest coast winds can deliver capacity factors as high as 61%. Geothermal plants typically have capacity factors around 76% but new enhanced geothermal is likely to be substantially higher.

Another substantial benefit delivered by the mix of Oregon's renewable energy resources is complementarity. This refers to the way wind, solar, hydro and geothermal can work together to provide a more stable, reliable, and efficient energy supply. Each of these resources has different availability patterns, and when combined, they can help smooth out the variability and intermittency that individual sources might face. This complementarity also enhances reliability, improves cost-effectiveness and increases energy security.

Battery storage technology is quickly becoming economically viable and efficient for filling in any short-term gaps not met by the clean resources described above. With round-trip efficiencies of 85-90%, batteries can store excess dispatchable energy for use during low generation periods, reducing the need for fossil fuel backup. Longer duration storage options to address extended periods of low renewable generation are also important. Pumped hydro and managing BPA's large-scale hydro with more emphasis on storage are two long-duration options for the Pacific Northwest. Also, the combination of different renewables like offshore and onshore wind, solar and geothermal can help balance overall energy production and substantially reduce the need for storage. All these solutions are available in Oregon for a reliable, low-carbon power system.

Finally, there are a number of solutions on the demand side that help align energy consumption with periods of high renewable generation. The integration of distributed energy resources (DERs) is improving grid resilience, tempering demand spikes during peak periods and providing small backup power sources throughout the grid. Even the electric vehicle in your garage can play a role. Virtual power plants (VPPs) can also offer several significant benefits to the grid. They are much faster to deploy than building new generation and can provide increased reliability and flexibility to the grid, lower costs to participants and reduce reliance on gas-fired peaker plants.

Thank you for the opportunity to testify in opposition of HB 3247.

Michael Mitton