Oregonians for Renewable Energy Progess Comments to the Northwest Power & Conservation Council on the 7th Power Plan Dec 16, 2015

My name is Ray Neff and I work with Oregonians for Renewable Energy Progress. On behalf of our 950 members, I'd like to thank the Commission for this opportunity to provide comment on the 7th Power Plan, and staff for their efforts to work through the complex issues of energy delivery in an evolving electric generation landscape.

OREP appreciates the fact that the Council has identified energy efficiency as a high priority to meet future energy demands. The energy we don't need to generate is the cheapest and cleanest of any resource. Likewise, demand-response is another tool that will allow consumers and utilities to better manage the energy that we do generate, alleviating some of the winter peak load called out in the Plan. It should be pursued to capture the potential 700 MW of capacity, and customer-focused solutions should be at the core of future policy.

Beyond that, the models used in the Plan are only as good as the data and assumptions going in. Most importantly, the models rely too heavily on historical data and weather patterns to determine future needs. The science is clear that long-term trends show a steadily warming planet. Here in the Pacific NW specifically, current data shows a strong trend where the coldest days of the year are warmer than historical patterns. As this trend continues, it will reduce our winter peak needs in the electricity system.

Indicators show that in a warming world we will have more precipitation in the form of rain than snow in the Northwest, which increases winter stream-flow and hydroelectricity, and reduces storage capacity for energy generation during the dry, summer months. As summer temperatures and droughts increase, (last summer was a good example of projected summers to come), having less water available from snow pack will require more summer energy from other sources than hydropower. Indeed many regional utilities, including Portland General Electric, are seeing a shift towards summertime peak system demand. Unlike winter peaking months, summer months are well matched to increased use of renewable energy (especially solar) to meet capacity needs throughout the Northwest. Wildfires and storms also have an impact on transmission capacity, and highlight a need for distributed generation resources located near customer load to increase grid resiliency. Planning for future climate, not past climate, may negate one of the Plan's main assumptions, i.e. that there is a predominant need to meet winter peak, with the least-cost option for that appearing to be natural gas.

Another inadequacy of the Plan is that it is very heavily focused on providing "least-cost" resources over all others. Despite the charge to the Council to account for externalities such as methane leakage and water usage in power generation, the Plan ignores these factors. In doing so, the least-cost resources identified in the near future are in fact not necessarily the most cost-effective over the long term, and does not necessarily provide the greatest resiliency. In evaluating renewables and RPS targets, the Plan approach overstates the cost and integration impacts of renewable energy, without considering any additional coal and natural gas plant retirements (beyond those already committed in Boardman and Centralia). This business-as-usual approach that ignores externalities isn't good enough in a warming world.

Finally, the Plan relies on the existing policy landscape to guide energy investment decisions. Oregon's utilities are on target to meet efficiency and renewable energy standards as currently set out in Oregon statute. Yet a November 2015 report from the Green Energy Institute at Lewis & Clark Law School clearly states that these strategies are inadequate to meet Oregon's 2050 climate targets.¹

According to the Oregon Global Warming Commission, "even if Pacific Power and PGE replaced all their coal-fired generation with natural gas-fired generation, complied with their renewable portfolio standards, and continued their energy efficiency programs, the utilities are not expected to meet the emission reduction goals defined in the *2015 Report*," to the legislature.²

Based on past not future climate expectations and searching for the lowest cost resources that don't include externalities, essentially business-as-usual, is not stepping up to meet the challenge of our time and the right of future generations to inhabit a livable planet. We can and must do better than this. We can build on the success of our 19^{th} century hydro-powered energy system, to create a clean, resilient, affordable 21^{st} century renewable energy powered grid that incorporates a broad mix of renewable resources, while eliminating the greenhouse gas pollution from fossil-fueled energy generation.

The time is now to take definitive action to address climate change in all sectors of our society. You and I have the power to determine the kind of world our children and grandchildren will live in, with the decisions we make here today. Yes the transition away from fossil fuels may be costly in the short term and require changes in how we all participate in energy choices. It is also fair that we shoulder the expense to transition to a low-carbon economy, just as our $19^{\rm th}$ century counterparts embarked to tap the bounty of our region's many, mighty rivers. Complimenting that existing clean resource with significant new wind, solar, energy storage and other renewable energies will get us there. From the long view, we will all benefit, both in the form of lower energy rates down the road and a healthier planet for all of us. Experience bares that out.

Thank you again for this opportunity to provide comment on the 7th Power Plan for the Northwest.

Ray Neff, MCRP Research & Communications Coordinator Oregonians for Renewable Energy Progress 1741 W 10th Ave, Eugene, Oregon ray@oregonrenewables.com

¹ M. Powers, A. Schlusser, A. Lang, C. Bonugli & S. Djemba. Countdown to 2050: Sharpening Oregon's Climate Action Tools. Green Energy Institute, Lewis & Clark Law School. Nov 2015. Pg 44. Retrieved from https://law.lclark.edu/live/files/20713-countdown-to-2050-sharpening-oregons-climate

² Ibid. Pg 45.