



May 14, 2021

To: Representative Nancy Nathanson, Chair, House Committee on Revenue  
Members, House Committee on Revenue  
From: Max Greene, Regulatory & Policy Director, Renewable Northwest  
Re: **Support for HB 2021A**

Dear Chair Nathanson and Members of the Committee,

Renewable Northwest is a regional, non-profit renewable energy advocacy organization based in Oregon, dedicated to decarbonizing the region by accelerating the transition to renewable electricity. Our members are a combination of renewable energy businesses and environmental and consumer groups. **Renewable Northwest supports HB 2021A, which would require Oregon electricity providers to supply 100% clean electricity by 2040.**<sup>1</sup>

HB 2021A represents an emissions-plus-planning approach to achieving 100% clean electricity. As we discussed in our March 23, 2021 and April 7, 2021 written testimony to the House Committee on Energy and Environment, we are confident that the combination of binding emission targets and PUC-acknowledged clean energy plans will result in significant opportunities for project development. PGE's and PacifiCorp's combined peak demand in Oregon is around 7.5 GW, and as of 2040 this bill would require that demand – plus any load growth due to electrification – be met with clean resources.<sup>2</sup> In an effort to better understand what this bill might mean in the near term, however, we recently worked with our partners at Climate Solutions and Northwest Energy Coalition to attempt to quantify the new renewables that will be needed to meet HB 2021A's interim 2030 emission-reduction targets.

By correlating the near-term greenhouse gas emission reductions expected in utilities' resource plans with the renewable additions associated with those reductions, we found that meeting this bill's 2030 targets could lead to approximately 2,765 MW of incremental renewables. We tested that figure by looking at the utilities' current resource mix, backing coal and gas resources out of the utilities' portfolios at a level necessary to meet the bill's targets, and replacing the lost energy and capacity with new renewables; this exercise resulted in a similar amount of additional wind and solar. A brief document further explaining our analysis is attached to this testimony.

Additionally, the accelerated transition to renewable resources that HB 2021A would spur is likely to be cost-effective, and may even result in savings for utility customers. Reputable third-party reports such as Lazard's Levelized Cost of Energy have looked at the relative economics of continuing to operate *existing*

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<sup>1</sup> As noted in our oral testimony, we are continuing to work with labor organizations to finalize some modifications to the bill's labor standards.

<sup>2</sup> See Oregon Department of Energy, 2020 Biennial Energy Report at 111 n.8 (Nov. 2020).

fossil generation versus building and operating *new* renewables and have found that it is often cheaper to replace existing plants with new renewables.<sup>3</sup>

Similarly, this transition is fully consistent with a reliable power grid, as the forthcoming Northwest Power Plan from the Northwest Power Planning and Conservation Council is expected to point to “thousands of megawatts of new renewable resources” as the most cost-effective *and* reliable next step for the grid; recent communication from the Council suggests that failing to transition to renewable resources could result in a “less adequate” system and “degrade[] the reliability of the electric grid.”<sup>4</sup> Indeed, many recent reliability issues in other parts of the country have been caused in significant part by the unexpected unavailability of gas resources.<sup>5</sup>

The alignment of this economic and practical reality of reliable, low-cost renewables with the need to transition to a new, decarbonized electricity system means HB 2021A comes before this committee at an ideal time. Renewable Northwest is pleased to offer our support for this bill, which would align Oregon with other western states and move us to 100% clean electricity.

Sincerely,



Max Greene  
Regulatory & Policy Director  
Renewable Northwest

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<sup>3</sup> See Lazard’s Levelized Cost of Energy Analysis – Version 14.0 at 7 (Oct. 2020), *available at* <https://www.lazard.com/media/451419/lazards-levelized-cost-of-energy-version-140.pdf>.

<sup>4</sup> Northwest Power and Conservation Council, “Modeling for Next Northwest Power Plan Indicates Revolutionary Changes in the Future Power Supply” (Apr. 14, 2021), *available at* <https://www.nwcouncil.org/news/modeling-next-power-plan-indicates-revolutionary-changes-power-supply>.

<sup>5</sup> See, e.g., Catherine Morehouse, “Power experts cite gas constraints as main cause of ERCOT outages, but system planning questions remain,” *Utility Dive* (Feb. 18, 2021), *available at* <https://www.utilitydive.com/news/power-experts-cite-gas-constraints-as-main-cause-of-ercot-outages-but-syst/595255/>.

## **Estimated Demand for New Renewables by 2030 due to HB 2021A**

Climate Solutions, Northwest Energy Coalition, and Renewable Northwest have assessed the renewable energy development potential we can reasonably expect from passage of HB 2021A. This includes wind and solar energy projects. Our analysis suggests that HB 2021A is likely to drive the development of appx. **2,765 megawatts (MW) of NEW renewables by 2030** by the two largest electric utilities: appx. 1,805 MW for PacifiCorp and 960 MW for Portland General Electric.<sup>1</sup>

This projected growth of renewable energy represents the additional wind and solar that are likely needed to meet the targets in HB 2021A, and would be in addition to the resources already required or currently under construction to meet growing electricity demand, customer sustainability goals, and existing policies like the Renewable Portfolio Standard (RPS). Significantly more renewable energy and other clean energy resources will be required to meet the 2035 and 2040 targets in HB 2021A as well – this is just the level of additional renewables projected for this decade.

For context, in 2019, Oregon had 592 MW total of solar energy.<sup>2</sup> The biggest current solar project built in Oregon is 56 MW (Apple's Gala Solar Power Plant in Crook County) and there are 77 utility-scale (non-rooftop) solar projects in Oregon so far. In 2019, Oregon had 3,415 MW total of wind energy.<sup>3</sup> The biggest current wind project built in Oregon is 450 MW (PGE's Biglow Canyon Wind Farm in Sherman County) and there are 46 wind facilities in Oregon so far.

### **Methodology**

To determine these figures, we began with the electric utilities' most recent emissions both as reported to DEQ and as reflected in their most recent Integrated Resource Plans (IRPs). We then looked at the utilities' renewable procurement plans within their IRP action plans and their projected emission reductions also as reflected in their IRPs. We correlated the renewable additions in the action plans to the emission reductions projected as a result of those additions and other resource actions.

Next, we determined what annual emissions levels would be necessary for the utilities to comply with HB 2021's 80% emission reduction target in 2030. We compared that emissions target to the utilities' projected 2030 emissions as reported in their IRPs. The difference between those two figures gives us the emissions reductions that are likely to result from the requirements of HB 2021A.

Finally, we took the emissions-to-MW correlation from the first step of our analysis and applied that figure to the emissions reductions attributable to HB 2021A. The result for PacifiCorp is appx. **825 MW wind and 980 MW solar + storage** by 2030 and for PGE is appx. **960 MW wind and solar** by 2030. Again, those are not total MW, but MW attributable to the policy – incremental MW that the utilities are likely to build because of

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<sup>1</sup> These amounts may be influenced by the results of the companies' RFPs and transmission availability.

<sup>2</sup> ODOE, Solar in Oregon, <https://www.oregon.gov/energy/energy-oregon/Pages/Solar.aspx>

<sup>3</sup> ODOE, Wind Power in Oregon, <https://www.oregon.gov/energy/energy-oregon/Pages/Wind.aspx>

this policy, beyond the utilities' current plans and customer demand driven by customer renewable energy goals. HB 2021A is an important broad policy to complement other state policies that reduce emissions in the electricity sector.

We also tested these figures by looking at each utility's current resource mix, backing out current coal and gas, and looking at what renewable additions might be necessary to replace the lost energy and capacity from ceasing operations or retiring fossil generation at a rate necessary to achieve HB 2021A's emission reduction targets. We also compared to PGE's projected incremental additions necessary to achieve the same 2030 emission reduction target. This additional analysis confirmed very similar levels of renewable resource additions as a result of HB 2021A.

For questions about this analysis, please contact:

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