Written Testimony of Rich Wallen

Chief Executive Officer and General Manger, Grant PUD

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Modernizing Hydropower: Licensing and Reforms for a Clean Energy Future

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Chairman Rush, Ranking Member Upton and Members of the Subcommittee, thank you for the opportunity to testify on the importance of modernizing hydropower. I am privileged to serve as the CEO and General Manager of Grant County Public Utility District. Grant PUD is a not-for profit, public utility providing electric power and wholesale fiber service(s) for our county in Central Washington.

Since our founding in 1938, we have been determined to provide our customers with affordable and reliable energy. As a public utility, we are governed by a democratically elected five-member board of commissioners who set policy, review operations and approve budget expenditures. Our county's need for electricity is growing. While most of our county is agricultural, some of our largest power purchasers are data centers, including Microsoft, in the community of Quincy as well as manufacturers like SGL Carbon and REC Silicon at the Port of Moses Lake.

Grant County has a renewable energy portfolio rooted in hydropower that has helped us avoid retail rate increases since 2019. We operate two Columbia River dams and two smaller hydro generators that have a combined generating capacity of more than 2,100 megawatts of clean, renewable energy. Priest Rapids and Wanapum dams, collectively known as the Priest Rapids Project, are licensed by the Federal Energy Regulatory Commission (FERC). These locally-owned and operated hydroelectric resources enable Grant PUD to provide our customers with some of the lowest-cost, most reliable electricity in the country. We have invested millions of dollars to modernize turbines and generators at both facilities. This investment maximizes the potential energy flowing through the Columbia River. Our federal license to operate the dams requires we provide safe fish passage and invest heavily in habitat restoration, fish rearing and studies to ensure the survival of migratory and otherwise endangered species. In addition to our hydropower generation, we also have a share of the Nine Canyon Wind Project, which includes 63 wind turbines with a maximum generating potential of 95.9 MW.

Since Grant's inception, it has been a recipient of "preference" power. The 1937 Bonneville Power Act established the Bonneville Power Administration (BPA) to market the power produced at the federal dams. It also included a "preference clause" which gives "preference and priority in the use of electric energy to public bodies and cooperatives." This means that consumer-owned utilities, including Grant PUD, have first right to the low-cost federal power produced at federal dams along the Columbia River – and pay all of the costs associated with generating and transmitting that electricity. The projects of the Federal Columbia River Power System are not FERC licensed because they are owned and operated by the federal government; however, policies that impact one set of hydropower generation tend to impact the other.

Under the State of Washington's Clean Energy Transformation Act (CETA), utilities must prepare and make public a clean energy implementation plan with its own targets for energy efficiency and renewable energy. Grant PUD's 2020 Integrated Resource Plan (IRP) shows our county's demand for electricity outgrowing the planning margins of our generation by 2026, especially at times of peak demand, this IRP process is currently underway for 2022 as per Washington statute and will likely draw the same conclusions based on our large customer queue.

This further demonstrates the importance of hydropower generation and the need for effective and efficient permitting. In 1999 Grant PUD formally asked FERC for permission to use the Alternative Licensing Process (ALP), but the Joint Fisheries Project (JFP) objected and the request was denied by FERC. Grant PUD then started into the Traditional Licensing Process (TLP). Our experience in the TLP resulted in less collaboration as comments were submitted back and forth through FERC versus collaborative front-end stakeholder engagement.

Grant PUD received its final license renewal on April 17, 2008 after operating under annual licenses pending the disposition of its new license application. The renewal allows for 44 years of continued operation of the project. Total estimated fish and wildlife costs over the license term are projected at $1.02B. This does not include additional investments made for turbine upgrades conducted at both Priest Rapids and Wanapum dams related to fish survival improvements. From our experience with our FERC-licensed dams, the process was frustratingly bureaucratic, with timely and expensive delays that create too much uncertainty for our members. Grant PUD is a proud supporter of H.R. 1588, the Hydropower Clean Energy Future Act. We could have benefited from legislation like this during our license renewal process in 2005 and commend Leader Cathy McMorris Rodgers for her consistent leadership on hydropower issues.

Hydropower is the single largest electricity source for our region. As a member of the National Hydropower Association, Grant PUD is closely following the development of the so-called "Uncommon Dialogue. " There are many components of the effort that would be beneficial to Grant, there are elements we are still reviewing, and there are elements that give us pause. One of those elements that gives us pause is the focus on dam removal, with dam removal being one of the three pillars of the legislation.

Dam removal in the Northwest has been a serious point of contention for several years, plagued with litigation. The recently completed Columbia River System Operation (CRSO)

Environmental Impact Statement (EIS) studied the environmental, biological, power supply and socioeconomic impacts of the entire Federal Columbia Rivers System Operations. One of the proposed alternatives was breeching the Lower Snake River Dams (LSRDs). The conclusion of the study was that the dams play a vital role in the Northwest power system and that their continued operation does not inhibit the existence of endangered or threatened salmon species. While we recognize some of the removal efforts contemplated under the "Uncommon Dialogue" are for non-powered dams, the continued focus on the removal of the power-generating and commerce-strengthening Lower Snake River Dams from organizations associated with leadership roles within the uncommon dialogue is very concerning.

As a conscientious consumer-owned utility, we take environmental stewardship seriously. The protection of ecosystems and imperiled species are of utmost importance to the communities we serve. About a quarter to a third of the dollars billed to BPA customers fund fish and wildlife programs. Combined with our preference brethren, BPA ratepayers have invested more in Endangered Species Act mitigation efforts than any other region, spending more than $750 million per year in recovery efforts. Since 2000, nearly $2 billion have been invested in the Lower Snake Rivers Dams to enhance salmon survival. These upgrades were built to facilitate fish passage and actually achieve spring juvenile survival at 96% and summer migrating fish survival at 93%, meeting or exceeding performance standards. Nonetheless, some stakeholders push for removal of the Lower Snake River Dams even though fish in neighboring undammed rivers are experiencing similar stress and the fact that only three of the listed species even migrate up the Snake. Peer reviewed academic studies have shown that the similar undammed rivers like the Peace River in British Columbia produce similar survival results for fish. This push for dam removal is not about fish recovery or science.

The four LSRDs are also a critically vital component of BPA's low cost, carbon-free power supply. To remove the dams would result in massive rate increase to regional supply costs, increase in carbon emission, impacts on other critical areas of the economy and increased risks of blackouts. The four dams produce about 1,000 aMW each year and account for about one quarter of BPA's total reserve-holding capacity for the year. Replacement carbon-free resources are not available and cannot be easily or cheaply secured.

Experts anticipate the Northwest will need to build 100 GW or more of new nameplate wind/solar + batteries by 2045 to meet Oregon and Washington state's grid decarbonization laws.[1] The region currently only has 64 GW of capacity. The huge buildout is required because we are replacing 24x7 fossil-fueled resources with intermittent energy resources, like wind and solar. That means "over-building" wind and solar to the point where there is always enough generation on-line to provide power to people who need it. Under this future, the LSRD will grow in importance, because they can act as giant, clean energy batteries, helping fill in the gaps for wind and solar. Losing the LSRD means losing their capabilities and likely extending the operation of coal or natural gas generation.

[1] https://www.ethree.com/wp-content/uploads/2018/06/Public-Generating-Pool_2018-Pacific-NW-Scenarios-and-Sensitivities_Final-Report.pdf
https://www.ethree.com/wp-content/uploads/2019/12/E3-PNW-Capacity-Need-FINAL-Dec-2019.pdf

While Grant PUD owns and operates its own hydropower dams, we are concerned about the impact losing the LSRD would have for the entire region. The Western Electric Coordinating Council—in its 2021 Western Assessment of Resource Adequacy—issued a warning that every region comprising the Western grid is facing an abnormal risk of blackouts.[2] The grid is interconnected, so even if a utility like Grant PUD has sufficient electricity to meet its customers' needs, our customers could still experience blackouts if the integrity of the grid fails. We are also concerned about the price impacts, as the Bonneville Power Administration has forecasted wholesale price impacts of 50% if the dams are removed and replaced with wind or solar plus batteries.[3] This price hike could impact Grant PUD customers, because we—as a public power utility—have priority rights to BPA-provided generation.

The costs of dam removal would also be significant. Pacific Northwest communities and business would have to pay almost $700 million per year to replace the carbon free output of the LSRDs, and not have a single additional MW to meet growing electrical demand. This enormous cost would also have no benefit of greenhouse gas reduction and could alternatively be spent replacing carbon emitting resources. Further, the costs of replacing the power output does not include the cost of actually removing the dams or their non-power benefits including transportation, irrigation, and recreation.

In a carbon constrained world, hydropower is increasingly vital for keeping the lights on. It is carbon free. It can be stored and generated on demand. It helps integrate wind and solar to the grid. Grant PUD is proud of its role in promoting the modernization of hydropower and thankful for the pioneering spirit exhibited by our founding fathers almost 85 years ago. I look forward to your questions.

[2] WARA 2021.pdf (wecc.org)
[3] https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/14957