TESTIMONY OF DANIEL M. JAMES

DEPUTY ADMINISTRATOR

BONNEVILLE POWER ADMINISTRATION

UNITED STATES DEPARTMENT OF ENERGY

"THE FEDERAL COLUMBIA RIVER POWER SYSTEM:

THE ECONOMIC LIFEBLOOD & WAY OF LIFE

FOR THE PACIFIC NORTHWEST."

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Good afternoon, Mr. Chairman. My name is Dan James. I am Deputy Administrator of the Bonneville Power Administration (BPA) headquartered in Portland, Oregon. I am pleased to be here today to discuss the continuing contributions of Federal hydroelectric power to the economy and environment of the Pacific Northwest.

BPA markets the hydropower from 31 Federal dams in the Columbia River Basin. These dams are operated by the U.S. Army Corps of Engineers (the Corps) and the Bureau of Reclamation (Reclamation). Bonneville also markets the output of the Columbia Generating Station, a 1,100 megawatt nuclear power plant near Richland, Washington. Connecting all of these resources with the rest of the Western electric grid are the 15,000 miles of high-voltage transmission lines that Bonneville owns and operates.

BPA was created in 1937 to carry out President Franklin Roosevelt's vision for harnessing the power of the Columbia River. In successive generations, the value of the river has been expressed in ways that met the challenges of the times: bringing electricity to rural homes and farms; powering the factories that built the ships and planes that helped win World War II; developing interregional power exchanges between the Pacific Northwest and California; delivering the benefits of the Columbia River Treaty; enabling the development of additional renewable resources; and restoring the fisheries and wildlife so prized by the people of the Northwest. Today, hydropower generation, along with the multiple other purposes of the Columbia River power system, remains the workhorse that powers the economy of the Pacific Northwest.

VALUE OF HYDRO

I'd like to call attention to three particular attributes of hydropower that make it especially valuable in the evolving Western electricity market.

- *Hydropower is highly reliable and dispatchable:* Columbia River hydropower provides dependable electricity generation around the clock and through every season of the year. For example, here in the Pacific Northwest, our coldest weather can last for many days as high pressure systems stagnate over the region. Similarly, heat waves such as what our region experienced this summer drive peak electrical demand requiring sustained generation for days. The hydro system is capable of, and in fact is planned for, meeting sustained periods of high demand. As the region has developed large amounts of wind generation, the Federal hydropower system has been able to compensate for the variable nature of wind and preserve reliability during periods of low wind generation. The dams of the Federal Columbia River Power System had a sustained peaking capacity in January of nearly 10,000 megawatts for 120 hours.

- The Federal Columbia River Power System delivers carbon-free peaking capacity that is difficult to replace with alternative renewable resources. There is no comparable source of firm, reliable power available that delivers the same value at anywhere near the cost of Federal Columbia River hydroelectricity.

  Not far from here, the four lower Snake River dams supply up to one-quarter of BPA's operating reserves. Reserves are the capacity that utilities are required to have available to meet unexpected changes in generation or electrical demand. Without the flexibility and operating reserves that these dams supply, the region could lose a substantial amount of its ability to deliver reliable energy, including the balancing of variable energy resources.

- *Hydropower is fundamental to the regional economy:* As I mentioned in my opening remarks, low-cost hydroelectric power has been a major asset for this region's economy since the Great Depression and the days of World War II. Today, Federal power continues to serve many remote rural communities across the Northwest that have few other economic advantages to offer industry and businesses. The new manufacturing economy in much of the Northwest is more technologically advanced than ever, and these manufacturers depend on reliable electricity with stable voltage and near-zero interruptions.

- *Hydropower contributes clean energy:* Responding to state mandates, Federal incentives and the declining cost of technology, much of the West is attempting to meet clean electricity goals through other renewable resources, particularly wind and solar. As these variable resources grow in the Western Interconnection, hydro offers adaptable operational capability to integrate them reliably and at low cost.

IMPORTANCE OF MAINTAINING HYDRO ASSETS

Preserving these valuable attributes requires constant reinvestment to replace and upgrade aging equipment. BPA is adopting a more rigorous approach for hydropower asset management that leads to the most efficient use of resources, recognizing that our assets do not all deliver the same value. Achieving these objectives for power requires collaborative, long-term planning with the Corps and Reclamation, our Federal partners. Through the Asset Investment Excellence Initiative, the three agencies have established prioritized goals to drive aligned investment decisions and improve contracting and project-management practices. We are already seeing the cost reductions and operational efficiencies from this effort. Longer term, this approach will produce the highest economic benefit and derive maximum value from the system, while meeting nonpower purposes and environmental requirements.

SUBSTANTIAL FISH AND WILDLIFE INVESTMENTS

The Federal Columbia River hydro system is also unique in the extensive modifications and operational changes made for the protection and enhancement of fish and wildlife. Since the 1980 Northwest Electric Power Planning and Conservation Act, BPA has invested billions of dollars in improved design and operation of the dams, as well as in offsite restoration efforts for the benefit of fish and wildlife sponsored by tribes, states, and rural communities. The trend of salmon and steelhead survival is on the rise – we continue to post returns that by some measures are near the numbers seen before Bonneville Dam was built.

Nonetheless, hydropower operations are subject to ongoing litigation and environmental review. In 2018, court-ordered spill above the levels specified in current Biological Opinions was valued by BPA at $40 million in lost revenue. It resulted in BPA implementing program funding reductions and a $10 million surcharge in its power rates. Also, BPA, the Corps, and Reclamation are undertaking a major environmental review of the Federal Columbia River hydro system through the Columbia River Systems Operation environmental impact statement.

SIGNIFICANCE OF THE COLUMBIA RIVER TREATY

The Columbia River Treaty is an agreement between the United States and Canada that jointly coordinates operations for flood risk management, hydropower generation, and other benefits. The Treaty went into effect in 1964 and has been a model of transboundary water resource cooperation ever since.

We are nearing an important date for the Treaty. In 2024, 60 years of prepaid flood control space from Canada will end, and the Treaty will shift to a different flood-risk management regime. Also, either country may terminate the agreement at any point after September 2024 with at least 10 years advance notice. These milestones present the opportunity for both countries to reconsider whether aspects of the Treaty's implementation can be modernized post-2024 to better reflect today's realities and continue to provide appropriate benefits to the region.

The United States has begun negotiations with the Canadian government on the future of the Treaty. BPA is the chair of the United States Entity and is a member of the negotiation team. The Department of State, with the United States negotiation team, holds regular meetings to inform the region and sovereigns of the status of the discussions.

CONCLUSION

In conclusion, Mr. Chairman, I would again like to express my appreciation for the opportunity to participate in this hearing. The Federal Columbia River hydropower system continues to benefit the people of the Pacific Northwest, while also powering our modern economy and contributing to the quality of life that people so greatly value in our region today.