March 30, 2023

Mr. John Hairston, Administrator and CEO
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

Dear Administrator Hairston,

The Executive Board ("Board") of Energy Northwest ("Agency") is committed to supporting our member utilities, northwest public power and the Bonneville Power Administration ("BPA") with reliable sources of carbon-free energy generation. On behalf of the Board, I would like to express our appreciation for the opportunity to comment on the emerging policy framework for the 2028 "Provider of Choice" contracts, and to submit the following information and recommendations to BPA regarding the contract process and related regional power supply topics.

The Board commends BPA for the open and transparent public process used to develop the initial program for new long term power supply contracts. BPA's openness to update the current Regional Dialogue contract model is evident from proposals to define a fixed Tier 1 system, incorporate capacity in the net requirement, and consider the new carbon constraints resulting from state clean energy mandates and climate policies. As a result, the Board has encouraged Energy Northwest's 28 member utilities to actively communicate their views and interests through the submission of written comments and participation in BPA's policy discussions, workshops and public meetings. The following comments aim to incorporate the expressed views and principal concerns we are hearing from our members.

New carbon-free energy generation is needed

As we look ahead to 2045, it is difficult to predict with certainty the system's electrical supply needs, as well as year-to-year output from the Federal Based System and utility peak net requirements. Nor is there regional consensus on the optimal mix of resources necessary to maintain system reliability while meeting peak loads. Nonetheless, emerging trends are evident: electrification of transportation, de-carbonization of other economic sectors, promulgation of new state-level climate and clean energy laws, restrictions on the use of natural gas for commercial and residential heating and cooking, phasing out of coal-fired generation, rapid growth of energy-intensive data storage facilities and growing market price volatility. Collectively these factors prompt us to consider whether new sources of environmentally friendly energy generation are needed to reliably and cost-effectively meet our members' anticipated loads. We believe the answer is clearly "Yes." In the Board's opinion, there are sufficient signals and indications to justify financial investment to examine new resource options; and the need for new generating resources will likely coincide with or near the effective date of BPA's 2028 contracts. While market purchases could be used to fill short-term resource gaps, as a long-term solution this is untenable – especially given the unpredictability and rising prices of market purchases during summer and winter peaks, in addition to state carbon-free generation requirements.

In the future, BPA may provide greater flexibility for small- to mid-size utilities to develop their own resources to meet demand above their Tier 1 allocations. We support such an accommodation, but recognize it is often difficult for utilities with limited staff – and with relatively small amounts of new load over a two-year period – to economically and efficiently pursue non-federal power. Collective action is needed and, as a nonprofit power marketing administration, BPA is the logical region-wide aggregator to offer power to serve customers' loads, either as Tier 1 or Tier 2 products.

As a Joint Operating Agency of the state of Washington, Energy Northwest is well positioned to help address future power supply needs in the region. The Agency has a proven track record operating Columbia Generating Station for nearly 40 years, and recently received industry-wide recognition for sustained excellence in performance. Additionally, for the past three decades we have successfully developed, constructed and operated renewable energy generation facilities for our members and utilities across the region.

We understand BPA customers have diverse needs and perspectives, and balancing these disparate interests is a challenge. The Board recognizes BPA must also contend with statutory constraints that can restrict its ability to undertake proactive measures. To this end, we express Energy Northwest's earnest willingness to collaboratively work with BPA to prepare for the high-growth scenario likely to result from the northwest's clean energy transition, as well as projected population gains of up to one million residents by the end of the decade. Whether it be an extended power uprate at Columbia Generating Station, the development of new renewable and storage facilities, partnering on demand-side management or deploying a new state-of-the-art nuclear energy facility, the Board and Energy Northwest stand ready to support the northwest public power community.

The Board is concerned with the potential for a significant gap between the signing of new long-term contracts between BPA and utilities, and the lead time required to bring new high-capacity resources online. Further, during this interval period, third parties may acquire this attractive new carbon-free generation, which would no longer be available to BPA as a potential resource. Therefore, we ask BPA to allocate the requisite financial support and staff resources to investigate the viability of new generation to serve either anticipated Tier 1 or Tier 2 loads. This allocation will ensure the eventual acquisition of selected resources is an available option and is not unduly delayed beyond the effective date of new contracts.

Energy Northwest SMR plans

Energy Northwest has been proactively evaluating new nuclear energy technologies for over a decade, including advanced and small modular reactors ("SMRs"), and is increasingly convinced a deployment in the northwest merits serious consideration. The evolution of nuclear energy technology has made SMRs an increasingly attractive resource option, capable of providing many novel attributes and benefits uniquely suited to a carbon-constrained system. Energy Northwest stands ready to develop these new high capacity, carbon-free resources, which can be modulated and scaled to sync with fluctuating peak loads and the variable output of other regional resources.

As early as 2010, a group of our member utilities – along with an investor-owned utility – funded and commissioned the Agency to study the potential deployment of new nuclear generation in Washington state. In the intervening years the Agency has worked with experts across the utility and nuclear energy industries, as well as the companies developing new reactor designs, to evaluate the efficacy of various SMR technologies. In 2020 we began evaluating and comparing a host of new nuclear technologies. The rigorous process examined a broad set of criteria, both quantitative and qualitative, and the multi-year effort determined there are several viable technology options. However, due to its advanced safety attributes, dispatchability and competitive cost, the technology chosen was X-energy's "Xe-100" High-Temperature Gas Reactor. The Xe-100 is an 80-megawatt advanced SMR, with a base plant consisting of four reactors capable of generating 320 megawatts. The design is scalable and additional 80-megawatt modules can be expeditiously added to an existing facility. Ultimately up to 12 units can be installed on a single site, increasing the facility's output to 960 megawatts.

Energy Northwest is proceeding with a planned Xe-100 project at a previously licensed site near Columbia Generating Station. The site offers many benefits, including access to available infrastructure and the transmission system, a location on federal Department of Energy land, a local workforce with strong nuclear energy expertise and the

transportation resources vital to a large energy project. The Agency has engaged utilities and industrial customers across the region and seen considerable interest in the project. To date, we have received initial funding from eight northwest utilities to explore the project and ensure this remains an available resource option in the future. The funding supports key activities, such as establishing a project ownership structure, assessing practicable financing pathways, and developing and refining a cost model capable of calculating estimated levelized cost of electricity and annual cost of power.

Under our current timeline, Energy Northwest would have a 320-megawatt Xe-100 SMR plant operating and online in 2030. However, to adhere to this schedule we need to commence key environmental, licensing and permitting activities at our site. In order to proceed, and maintain a potential 2030 deployment date, additional funding will be required in the near-term.

Closing remarks

The Board is committed to helping Energy Northwest's member utilities and BPA develop the resources required to meet the region's future clean energy needs. We have demonstrated this commitment through improved operation of Columbia Generating Station, as well as the development of the Nine Canyon Wind Project; the Horn Rapids Solar, Storage and Training facility; the 2015 regional demand response pilot project; the deployment of electric vehicle charging infrastructure across central and eastern Washington; and our planned 150-megawatt Ruby Flats Solar Project. However, the Board is worried the region is heading toward an inflection point. In 2030, as a result of climate laws adopted in Oregon and Washington, utilities in these states will have to comply with new restrictions on greenhouse gas emissions, while economy-wide carbon-reduction efforts place increased demand on the existing electric system.

The Board is concerned the region will lack the firm, dispatchable energy necessary to meet these challenges and maintain adequate supplies of reliable, affordable electricity. Given the long-lead time required to develop new resources, we believe BPA should accelerate its planning and preparation for new capacity to meet future demand. Therefore, we respectfully encourage BPA to make reasonable investments in the exploration of new clean, reliable generating resources and request BPA and Energy Northwest leadership confer in the near future on opportunities to advance our mutual goal of supporting northwest public power.

Sincerely,

John D Saven

John Saven
Executive Board Chair, on behalf of the Energy Northwest Executive Board

cc:
Energy Northwest Executive Board
Energy Northwest Board of Directors
Columbia Generating Station Participants Review Board
Clearing Up
Northwest Energy Coalition
Northwest Power and Conservation Council
Northwest Requirements Utilities
Pacific Northwest Utilities Conference Committee
PNGC
Public Power Council
Washington Public Utility Districts Association
Western Public Agency Group
Governor Jay Inslee
Washington Congressional Delegation