



MODERN
Electric Water Company
reliably serving the Spokane Valley since 1905

Chairperson Cathy McMorris Rodgers
Ranking Member Frank Pallone, Jr.
U.S. House Energy and Commerce Committee

Chairperson Jeff Duncan
Ranking Member Diana DeGette
Energy, Climate, and Grid Security Subcommittee

January 26, 2024

Letter for the Record

Re: Support for the Columbia River System and lower Snake River dams

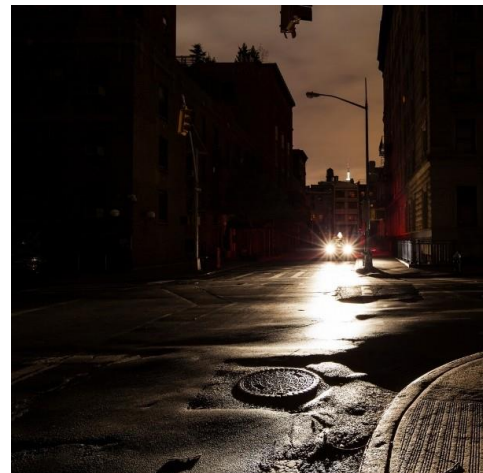
Dear Chairpersons McMorris Rodgers and Duncan and Ranking Members Pallone and DeGette,

I am writing to you on behalf of Modern Electric Water Company (Modern), a customer-owned, not-for-profit electric and water utility company that serves 25,000 residents and businesses in Washington's Spokane Valley.

The White House Council on Environmental Quality's discussions on the potential breach of the lower Snake River dams—Ice Harbor, Lower Monumental, Little Goose, and Lower Granite—have compelled us to express our profound concerns. If these critical dams are breached, it could unleash a cascade of adverse effects, including electricity price hikes, energy shortages, and the looming threat of power blackouts for residents living in the Pacific Northwest.

Power Supply Shortages & Rolling Blackouts

The Washington state Commerce Department predicts that demand for electricity will nearly [double by 2050](#), and [studies demonstrate](#) this demand for electricity will outpace supply. In our state, three in five households already use electricity as their primary heating source, accounting for more than two-fifths of Washington's electricity sales. The commercial sector currently uses almost one-third of the state's electricity, and the industrial sector accounts for almost one-fourth. Furthermore, more than [167,000 electric vehicles](#) are registered in Washington today, the fourth-most of any state. This number has grown fivefold in just five years.



With this projected growth in energy need, our power grid will soon be under unsustainable pressure. With soaring electricity demand, climate change, and the aggressive movement to retire fossil fuel generation in the West, our region faces an energy resource deficit of unprecedented proportions, putting Washington's residents at growing risk of blackouts.

(See Modern's short explanatory video, "[Washington's 'Perfect Storm' for Rolling Blackouts](#)" [here.](#))

The lower Snake River dams produce about as much annual, carbon-free energy ([1,000 average megawatts](#)) as a large nuclear power plant. (For reference, that's roughly the same average output as [Washington's Columbia Nuclear Generating Station.](#)) But the dams can produce up to *three times* that amount during periods of high demand. The combined nameplate capacity of the four lower Snake River dams is over [3,000 megawatts](#). As many as 750,000 homes rely on the carbon-free power generated by the dams. During times of extreme need, they can power up to 2.25 million homes.

Hydropower is some of the cleanest energy in the United States and balances our power grid, compensating for shortfalls created by intermittent energy sources such as wind and solar, especially in the Pacific Northwest, where [wind and solar production nearly flatlines through single-digit winters](#). Hydropower also prevents [50 million metric tons of carbon emissions](#) from entering our atmosphere. This affordable, dependable, carbon-free electricity is critical to our region, as nearly two-thirds of Washington's renewable energy comes from hydropower.



Figure 1 - The Lower Granite Lock and Dam (US Army Corps of Engineers)

Why the Lower Snake River Dams Really Matter

The lower Snake River dams are essential to Washington for many reasons, playing a significant role in the economic, agricultural, energy, and transportation sectors of the Pacific Northwest. The following are some of the top reasons the lower Snake River dams are so important to our region:

- 1) **Hydropower Generation:** These dams generate a substantial amount of clean and renewable hydropower, contributing to Pacific Northwest energy needs and reducing our reliance on fossil fuels. Breaching the dams would disrupt our region's clean energy production.
- 2) **Irrigation & Agriculture:** The dams provide water for irrigation of 60,000 acres of farmland, enabling agricultural productivity in Washington's arid regions. Reliable water supply from the dams supports crop growth and helps sustain the region's farming communities.
- 3) **Navigation & Trade:** These dams facilitate navigation along the Snake River, allowing for transportation of goods, commodities, and resources. This supports our economy by providing a cost-effective means of moving our products to markets. Equipped with navigational locks, each dam along the Snake River serves as a vital conduit for inland farmers to reach global markets. In a mere nine months during 2017, over [3.5 million tons of cargo found passage through the Snake River via barges](#). The Snake River holds special importance for Northwest wheat farmers, enabling the transportation of almost 40 percent of all U.S. wheat exports annually through barging, the most fuel-efficient, secure, and environmentally friendly method of cargo conveyance. If these dams are breached, it would disrupt our supply chains.
- 4) **Recreation & Tourism:** The reservoirs created by the dams offer recreational opportunities such as boating, fishing, camping, and wildlife viewing. These activities contribute to our tourism industry and provide Washington residents with opportunities for outdoor recreation.
- 5) **Water Supply:** The dams contribute to water supply management, ensuring a consistent supply for domestic, industrial, and agricultural use, especially during dry periods.
- 6) **Cultural & Historic Significance:** The dams have become part of our region's cultural and historical fabric, representing a key aspect of its development and growth over the decades.

[\(See Modern's short explanatory video, "The TRUTH about the Lower Snake River Dams" here.\)](#)



Figure 2 - Ice Harbor Dam (Photo: D.G. Rigg/US Army Corps of Engineers)

An Honest Discussion About Saving Our Salmon

It's time we had a real, open, honest conversation about saving our beloved salmon—and why that honorable goal does not begin and end with U.S. hydropower, our Columbia River System and our lower Snake River dams.

Rest assured, we believe preservation of our salmon population is a significant and worthy ambition. Salmon are essential to tribal and non-tribal communities across the Northwest, for cultural, economical, and recreational needs. They play a key role in ecosystem health, from our oceans, to streams and forests. While some vocal critics resort to a "blame the dams" approach when discussing salmon

population decline, hydropower's track record in robust fish mitigation activities is solid.



Figure 3 - Coho salmon spawning (Photo: Bureau of Land Management Oregon & Washington)

Thanks to hydropower technologies such as fish ladders, turbine bypass systems, fish screens, spillway weirs and other tools, fish survival rates at dams are between 93-99%. The four lower Snake River dams feature some of the most advanced and successful fish passage systems in the world. US Army Corps of Engineers testing of a new turbine installed at Ice Harbor Dam revealed a survival rate of [98.25% for Chinook salmon](#). These rates are comparable to those of free-flowing rivers. Additionally, Washington has seen three consecutive years of improved salmon returns. In 2023, the numbers of fall Chinook coming back to the Columbia River tributaries were the best since 2015, due primarily to colder ocean conditions. In September, the Snake River fall Chinook run was 44% higher than the 10-year average.

[A 2020 NOAA report](#) notes that the lower Snake River dams rank among the most contemporary and well-maintained dams providing fish passage on the West Coast. They facilitate fish passage for approximately 95% of the fish navigating through them. The report also notes that even rivers without dams cannot achieve 100% survival rates, due to factors such as predation and river conditions.

For decades, the lower Snake River dam fish mitigation efforts have produced meaningful results. NOAA has repeatedly indicated that fish passage through the dams was notably effective. In June, [the Wall Street Journal's Faith Bottum noted](#): "In the years since, however, the salmon population has rebounded thanks to improved fish ladders, which allow the fish passage around the dams. This is why NOAA said in 2008, and again in 2014, that it is no longer necessary to breach the Snake River dams. A 2020 report from the Energy Department and the Bonneville Power Administration (the federal agency that manages the electricity from dams on the Columbia River system) concluded that rebuilding salmon stocks didn't require sacrificing electrical power."

The lower Snake River dams all meet and even exceed federal and state standards for safe fish passage. For each of the four dams, NOAA upholds distinct survival standards for downstream-bound juvenile salmon. The agency aims for a 96% survival rate for yearling chinook and steelhead, and 93% for "subyearling" chinook less than a year old. The lower Snake River dams are consistently meeting those performance standards, according to [NOAA Columbia Hydropower Branch Chief Richie Graves](#).

What's Killing Our Salmon?

Even 100% dam passage rates and robust mitigation efforts could be totally upended if salmon can't survive threats such as:

1) Hostile Oceanic Conditions: The single greatest threat to salmon and steelhead is not from hydropower or the lower Snake River dams; [it's from rising sea temperatures](#), which could lead to a 90% decline in Chinook salmon runs, NOAA reports. The young fish are extremely vulnerable and spend most of their lives (3-4 years) in salt water. Warm ocean conditions shift the balance of predators and prey and expose them to deadly threats. Oceanic conditions are so critical to salmon survival that scientists predict adult salmon returns to the Columbia River based on these conditions when the young fish migrate out to sea.

[A 2020 study published in the science journal Fish and Fisheries](#), by Dr. David Welch, revealed that Chinook salmon survival has dropped by 65%, on average, over the last 50 years in rivers along the whole West Coast of North America. [Dr. Welch noted](#), "We were shocked to discover that the survival of salmon across British Columbia or in the Puget Sound is now as low or lower than the reported survival of Snake River populations, which everyone thought had terrible survival because of the dams." This 50-year decline in the population of salmon coincides with same timeframe the Intergovernmental Panel on Climate Change referred to as a period of [50 years of unabated oceanic warming](#).

2) Warming Rivers: Salmon need cold water to survive, and their survival is threatened when water temperatures rise above 68 degrees. The water flowing from hydroelectric dams actually stays colder than undammed portions of the Snake River Basin, according to [a 2020 study by the National Oceanic and Atmospheric Administration](#). Dams in the Columbia and Snake River basins have been proven to [stabilize extreme water temperatures](#) by redistributing summer heat into the fall, thereby minimizing temperature fluctuations. Additionally, studies indicate that temperature levels before and after dam construction generally remain stable or decrease, despite rising air temperatures. In many cases, dams mitigate water temperatures by storing cooler water and releasing it when ambient temperatures rise. Based on U.S. Army Corps of Engineers models, NOAA determined that breaching dams along the Lower Snake River would have a minimal impact on temperature exceedances.

3) Sea Lions: Sea lions prey on endangered salmon as they migrate up the Columbia River. Sea lions are an overabundant predator, and their population has exploded from several thousand in 1972 to more than 300,000 today. The estimated sea lion population in the Columbia River, spanning from Bonneville Dam to Astoria, Oregon, is [approximately 4,500](#). Below Bonneville Dam, 32 wild salmon populations in the Upper Columbia River and Snake Rivers face the threat of predation by sea lions. The Upper Columbia River spring chinook run, classified as threatened under the Endangered Species Act, is particularly vulnerable to sea lion predation downstream from the Bonneville Dam. The Washington Department of Fish and Wildlife predicts a 90 percent chance of winter steelhead runs facing extinction if the sea lion issue is not addressed.

4) 6PPD-quinone & Pollution: Salmon face perils from pollution, including 6PPD, a highly toxic preservative found in old car tires that is carried into waterways during heavy rains. In 2020, a report published in [the scientific journal Science](#) connected the mortality of coho salmon in the Pacific Northwest to 6PPD-q. Subsequent studies, [including one in 2022](#), proposed that this

chemical may also adversely affect steelhead trout and Chinook salmon. They also face threats from insect-killing chemicals that contain carbaryl and methomyl, among other contaminants including drugs and microplastics.

5) Predatory Birds: As many as 14 colonies of predatory birds have been devouring juvenile salmon and steelhead in the Columbia River. They eat millions of migrating fish every year.

All of these factors are significant when addressing the health and stability of the entire salmon ecosystem. This is why policymakers must consider a large-scale approach to salmon recovery, one that considers hydropower's successes and that doesn't destroy critical dams or put the bulk of financial responsibility on Washington's energy ratepayers.



Figure 4 - Lower Monumental Dam fish ladder (Photo: Bonneville Power Administration)

Breaching the Dams: A Price That's Too Big for Washingtonians

Breaching the four lower Snake River dams comes with a price that's simply too big for Washingtonians. We have yet to see an independent engineering, and cost-benefit and fish-benefit analysis, but recent studies concluded that breaching the four lower Snake River dams would cost taxpayers between **\$10.3 billion** ([Sen. Patty Murray and Gov. Jay Inslee Report](#)) and **\$77 billion** ([2022 Columbia River System Operations \(CRSO\) Environmental Impact Statement](#)).

The [2020 Columbia River System Operations Environmental Impact Statement](#) found that breaching the lower Snake River dams could:

- Double the risk of region-wide blackouts
- Add 3 million metric tons of carbon to the atmosphere every year from fossil-fueled electricity

- Increase the region’s electricity costs by \$800 million a year and the Bonneville Power Administration’s power costs by 50%, which could increase home energy costs 25% or more
- Result in the loss of \$540 million per year in regional economic productivity
- Result in the loss of 4,900 jobs due to higher electricity costs
- Reduce social welfare by \$458 million annually from the loss of irrigated land and farm laborers
- Add 79,000 more semi-trucks to the road each year (an extra [17,617,000 tons of CO2 emissions per year](#))

Additionally, it takes 5 megawatts of wind/solar/batteries to replace one megawatt of hydropower capacity, so removing the lower Snake River dams (3,000 megawatts) would require a new buildout of 15,000 megawatts of new energy resources.

Furthermore, there is no scientific evidence that breaching the lower Snake River dams would effectively boost Pacific Northwest salmon populations, particularly if the most significant factor killing our Chinook—*oceanic warming*—is not addressed.



Figure 5 - Little Goose Lock and Dam (Photo: US Army Corps of Engineers)

On the other hand, preserving the lower Snake River dams will help keep Washingtonians' energy costs low. Hydropower is the reason our utility has some of the lowest residential energy rates in the nation—starting at just 5.4 cents per kWh (compared to the [U.S. average of 16.9 cents per kWh](#)).

That low-cost, reliable energy is not just a privilege; it's a life-saving necessity, particularly to heat homes during bitter cold winter months—such as this January, when temperatures dipped as low as -13 degrees in Washington—or to prevent blackouts from threatening public safety and human lives. In fact, hydropower made up more than 70% of the region’s power supply during the recent cold snap. On January 19, [the Public Power Council reported](#):

“[The] federal Lower Snake River Dams (LSRDs) reliably produced 1,000 megawatts (MW) or more of electricity on average during the highest electric demand hours throughout the past week of cold weather events. These LSRDs, in conjunction with the other federally-operated Columbia River Basin hydro units, together produced more than 10,000 total MW of output – yet again serving as the backbone of the Pacific Northwest electricity supply. ...

“The Lower Snake River Dams in particular played a major role, consistently ramping up to 1,000 MW or more of generation twice each day to meet morning and evening peak demand. This scale of carbon-free, dispatchable generation cannot be replaced with existing technology. This event is yet another example of the value of the Lower Snake River Dams to the region, not only economically but in reliably meeting peak demand on the wholesale grid to ensure human health and safety in extreme weather conditions.”

Make no mistake, hydropower as an existing, clean baseload energy resource is more critical than ever in the Pacific Northwest, and the lower Snake River dams are a large part of the solution.

Thank you for your time and consideration of this important matter.

Sincerely,



Chelsea Martin
Government Relations & Communications Coordinator

