



Throughout 2020, we will be celebrating our heritage and our 85 years of service to our community. Last fall, we had record breaking attendance at our customer appreciation event with well over 400 guests. We hope to beat that again this year at our event that will coincide with Public Power Week. We are genuinely grateful for the opportunity to work here in this community and to serve our family, friends and neighbors. Here's looking forward to a great 2020 and to the next 85 years!

JOIN US

IN OUR 2020 DISASTER PREPAREDNESS PLANS

One of 2020's strategic focuses for the PUD is disaster preparedness. We are trying to be as prepared as we can to take care of our own families so when disaster strikes, we can focus on getting your power and water back on. Part of our strategy is to help all of you be prepared too. All year long we will be sharing some tips to help our community be more resilient in the event of an emergency.

For the new year, here are some resolutions that we hope you'll take up in the coming months:

JANUARY

- Make an emergency plan: choose a safe place to meet, learn evacuation routes, and establish an out-of-town contact. Set up a group text list so you can communicate with them all during a disaster.
- Store water and nonperishable food—enough for at least three days to start and work your way up to two weeks. Store hotel soaps and shampoos or travel sized toiletries in a plastic storage bag.
- Don't forget about your pets! Take a current photo of you and your pet together in case you get separated during a disaster. Add food for them in your emergency kit.
- Get to know your neighbors and invite them to be a part of your emergency plan.

FEBRUARY

- Snap photos of important documents and save them in a secure place or online—property insurance paperwork, IDs, medical cards, car insurance cards, etc.
- Check your insurance for coverage on disasters like floods, hurricanes, and earthquakes.
- Add medical items to your emergency supplies stash; remember to include cash!

What is the PUD doing?

Many of the same things listed above. We all just renewed our CPR/1st Aid cards in December. We're also gathering items to store at the shop in case we are trapped here at office for several days. Just like at home or at a shelter, our employees need food, places to sleep and personal care items. We also have applied for FEMA grants for seismic valve retrofits to our water reservoirs and to create marshalling points around our county for emergency water stations, in addition to a power line relocation in a slide-prone area that is hard for us to access to make repairs. We also installed two new standby generators on water systems in 2019 and plan to do two more in 2020. Small, ongoing steps will get us closer to being prepared. Please join us!

2 WEEKS READY

BUILD KITS

Plan to be on your own for at least 2 weeks



MARCH

- Take a class in CPR and first aid—call Mason General Hospital or your local fire department to see when classes are held.
- Sign up for alerts and warnings. Download the FEMA app to get real-time alerts, safety tips, and locate open shelters or visit Mason County's Dept. of Emergency Management at: <https://www.co.mason.wa.us/dem/index.php> and Jefferson County's at: <https://www.co.jefferson.wa.us/950/Dept-of-Emergency-Management>
- Add more items to your emergency supplies stash; remember medications!

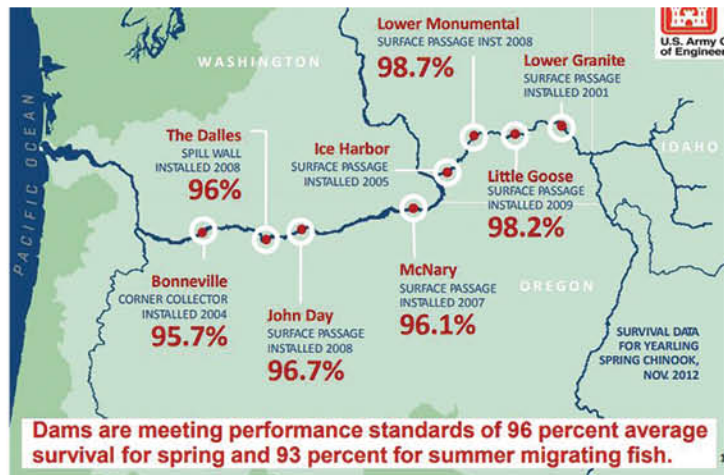
Wading through the Competing "Facts"

Several articles and stories have come out in the news about the governor's orca task force and their subsequent findings after evaluating the impacts of removing the four Lower Snake River dams. I work in this industry and live this stuff every day and even I find it difficult to navigate through all the information being thrown at me. It's hard to ascertain what is fact-based data that I would feel comfortable using to help your board of commissioners make decisions for this utility, and what information is simply framed in a way to incite an emotional response.

I'm very disappointed at some of the deeply flawed "studies" commissioned by private interest groups, who then disseminate it to the general public without any transparency on how they collect their "data". I also am, frankly, a little disappointed in the agencies that operate the dams and power grid for continuing to regurgitate the same complicated, jargonizing facts and figures to us. We need good facts to help us ascertain: Will breaching the dams save salmon, and subsequently orcas? Can we afford to remove the dams? Is there a reliable substitute for the baseload hydropower that would be removed to power our region, or will the grid fail under the demand? I also find it interesting that the governor's task force didn't interview our state's public utility districts during their "stakeholder" outreach interviews. Public power customers paid for the dams which the taskforce is considering removing, and in return, our customers receive the preference power from those dams. Our customers certainly are stakeholders. The omission of PUDs was disappointing, to say the least.

I raised these issues with my colleagues at the industry associations that PUD 1 belongs to. I told them I need good data to disseminate to my ratepayers, my staff and my commission—facts I can stand behind. The Public Power Council worked with Northwest Requirements Utilities, PNGC Power and Northwest RiverPartners to collect and agree on reliable data to share from Bonneville Power Administration, NOAA, and the U.S. Army Corps of Engineers. Here's what I have for your consideration:

Public power customers pay on average about \$300 million annually for investments in fish and wildlife programs in the Columbia River Basin. Mason PUD 1's power customers contribute just over \$376,500 of that amount, and more than \$3.33 million comes from Mason PUD 3 power customers, based on our proportionate shares of the federal base system. Total F&W investment has grown into billions of dollars since 2000.



The F&W programs are working. Thanks to sizable investments by BPA's customers in technology to support fish migration, spring juvenile salmon survival is at 96% and summer migrating fish survival is at 93%.

It is true that the Lower Snake River dams' surplus power is sold to California and other regions that need additional carbon-free power. That doesn't mean we don't also need it. We need the dams' peaking capacity to cover us when our power demand is high. Those four dams can create capacity of over 3,000 megawatts. (For comparison, PUD 1's entire system is about 9 average megawatts; Seattle's is closer to 1,000 aMW.)

On March 4, 2019, after a multi-day cold snap, power was tight in the Pacific Northwest. Wholesale market prices reached \$1,000 per megawatt hour (PUD 1 usually pays around \$35 per megawatt hour). Between midnight and 8 a.m. on March 4th, demand in our region increased by 4,000 megawatts, which is 4x the city of Seattle. The Lower Snake River dams met 27% of that peak demand. That's why we have them. Without them, we would've experienced blackouts and brownouts. The rest of the time, the surplus power they generate brings in revenue for BPA that offsets the cost we pay for our power. It keeps our rates low.

Wind and solar cannot work on our grid without flexibility in our transmission system. Hydropower is that flexible baseload power. It can ramp up to compensate when it's dark and the wind isn't blowing, and it can taper off when wind and solar are peaking. Without it, wind and solar won't work. Another PUD manager said something to me that I thought was spot-on, "If people want to remove the dams because they decide the benefit to fish is worth the tremendous costs, fine. But first they need to find a way to replace the baseload." Right now, the only way to replace baseload

is with carbon-emitting resources like coal or gas (and our state is not willing to do that), or with nuclear, which there isn't enough of. It doesn't mean we won't ever find a way, but we're not there now. We're not even close. I've heard people throw out terms like "battery storage" and "geothermal" and many other generation ideas, which are all good technologies, but they're not baseload replaceable.

So far, all the studies' reports I have read and presentations I have sat through basically deliver the same findings: removal of the dams may slightly improve the survival rates of salmon, but likely not enough to save them. The Lower Snake River dams are too small of a piece in a much larger, arduous puzzle. The benefit doesn't offset the risks of compromising the region's power grid and the astronomical expense to the ratepayer to remove the dams, restore the habitat, and rebuild transmission from other sources. We also will not meet our state's clean energy goals regarding carbon. In fact, it will significantly derail them. BPA estimates it will cost between \$1.4 to \$2.8 billion (adjusted for inflation from 2016 figures) to remove the Lower Snake River dams. These numbers don't factor in mitigation for other losses like flood control, irrigation for drinking water and farming, economic losses, shipping, recreation, etc.

We've spoken a lot about these issues at our board meetings, as you can imagine. While we are self-described energy geeks and we tout our clean, renewable hydropower, we also realize that these issues are deeply personal for our constituents. Ratepayers expect us to do the deeper dive on their behalves and provide the synopsis. These facts we put forth are based on science that we can confidently stand behind, but I hope you are good consumers of data and view everything with a critical lens. It's good to ask questions, especially on issues this important. We do the same. Please call me or your commissioners if you have any questions or want more information.



Kristin Masteller
General Manager

COMMISSIONER'S CORNER

We in the Pacific Northwest have been blessed with the Columbia River and its hydropower to provide us low cost energy. Not every corner of our nation has the benefits of clean, renewable hydropower like we do. Many areas still rely heavily on carbon emitting resources. What really concerns me is how we, as an industry, will continue to keep the lights on. Throughout the U.S., coal plants are starting to close. They do produce a lot of carbon and they have gone to great efforts to help reduce carbon by various methods, but also at great expense. Many coal generators are closing because of this cost and as we try to transition to a carbon-free environment. Natural gas produces about half the carbon of coal, but it still produces carbon.

Washington State passed a bill to have 100% carbon free energy by 2045, which I think is a very good goal. PUD 1 has over 98% carbon free energy right now. The problem I foresee though is that resource adequacy (which is enough baseload-capable power sources to power our grid) is not going to be met. This will be a huge problem if we don't start planning ahead now. We need to ensure that there's enough resources available so when everyone turns their lights on at once, there's enough power to meet the demand.

In early Spring of 2019, we had a big cold snap that caused a high demand for power. It was a perfect storm: a natural gas line in Canada was broken and they couldn't provide us with any extra power, the cold front was extreme and long so peak demand for power was unusually high, and the water in the rivers that would

normally create power was frozen and sitting at a much lower level than normal. The Pacific Northwest almost went dark. Even though it was on the news and power companies asked customers to conserve, I don't think people realized that. Through the efforts and coordination of many organizations, the lights were kept on, but at a huge monetary cost.

The point I'm trying to make is that the United States needs to plan ahead to bring on new equivalent resources at the same rate that we are retiring generation facilities, like coal and gas plants. Solar and wind are renewable, but they are not reliable enough for baseload power. It scares me that people are even considering removing the Snake River dams and losing that hydropower. We have some critical choices ahead of us regarding how we will be able to keep the lights on. Even with hydropower, our region needs to prepare for this. PUD 1 and its association partners are working to communicate the value of our existing hydropower and the need for the licensing process for hydropower projects to be streamlined so we can continue to have carbon free, baseload resources. This region and the country at large still have a lot of planning to do on this issue.



Ron Gold
Commissioner, District 2



PUD 1 ELECTRIC customers can register to participate in the PUD's second community solar drawing online at solar.mason-pud1.org no later than February 28, 2020 at 5:00 p.m. Participants will be selected by randomized drawing on March 2nd and contacted via email.

There are 965 units available at \$100 each. Each person can register to buy up to 100 units.

Low-Income Customers can register to participate for FREE thanks to a \$50,000 grant from Bonneville Environmental Foundation. See our website for information on how to prequalify and register in person at the PUD office. The array will be built on top of the PUD's new vehicle storage building at the PUD 1 campus and should be commissioned in April!

For more information and answers to frequently asked questions, visit the solar website: solar.mason-pud1.org or call Julie Gray, project manager, at (360) 877-5249.

THE BOARD OF COMMISSIONERS regularly meet the 2nd and 4th Tuesday of each month at 1:00 p.m. at the PUD 1 office in Potlatch. For more information on meetings, agendas and minutes, please visit mason-pud1.org/about/meetings/.



www.mason-pud1.org

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