

FOUNTAINS OF ENERGY

As a renewable source of clean electric generation, dams are hard to beat

Uncle Sam took up the challenge in the year of '33, for the farmer and the factory and all of you and me.

He said, "Roll along Columbia, you can ramble to the sea, but river, while you're rambling, you can do some work for me."

— Woody Guthrie,
"Grand Coulee Dam"

By Mike Federman

Since the construction of Bonneville and Grand Coulee dams in the 1930s, the hydroelectric system on the Columbia and Snake rivers has produced millions of kilowatt-hours of low-cost power.

Thirty-one hydro projects throughout the Northwest

deliver about 85 percent of the electricity the Bonneville Power Administration (BPA) sells at cost to utilities in eight states.

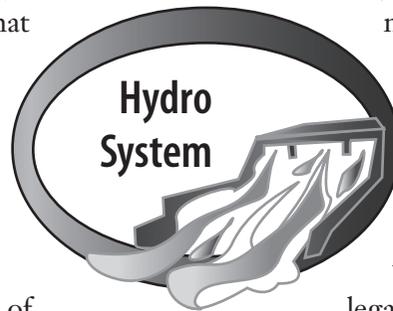
It is clean energy that produces no significant emissions that contribute to global warming.

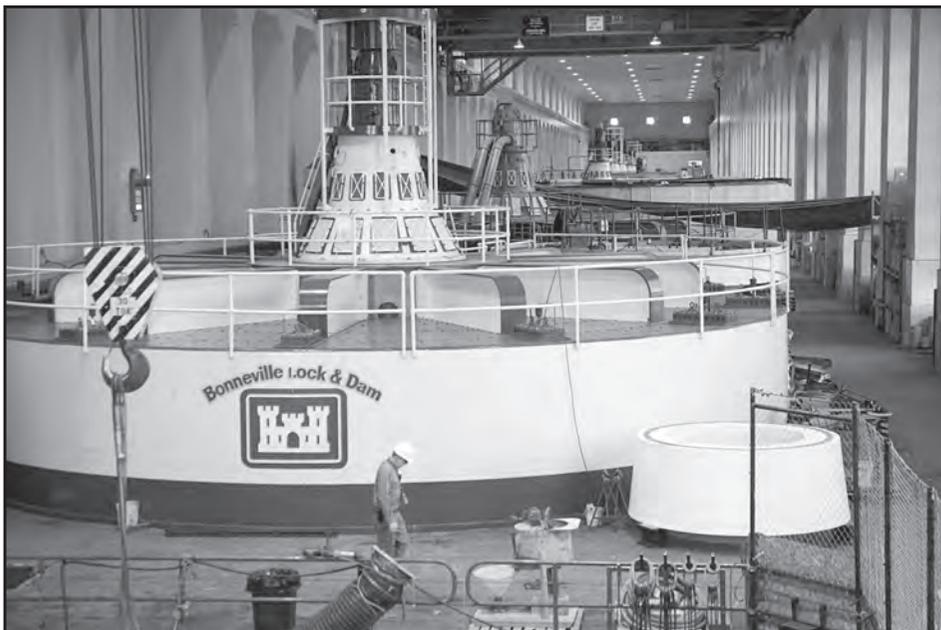
"We have one of the lowest, if not the lowest, carbon footprints (for transmission) because of our use of hydropower," says BPA spokesman Scott Simms. "The BPA portfolio is already one of the greenest in the nation. We have done surveys where we get feedback from people who appreciate the

hydro and nuclear generation in our portfolio—especially with all the environmental concerns."

While the rest of the nation struggles to produce power that is carbon free, the Northwest enjoys a clean and renewable resource that some have been slow to accept because of a protracted legal and political battle over salmon recovery.

It is important to recognize that without hydroelectric dams, traditional sources of generation, such as coal-fired plants, would have spewed massive amounts





Above, a look at one of the generators at Bonneville Dam. Two powerhouses hold a total of 21 generators. Photo by Brenda Somes.
Opposite page, Grand Coulee Dam at Coulee Dam, Washington.
Right, transmission towers rise above Grand Coulee Dam. Photos by Mike Federman.



of greenhouse gases into the environment during the past 70 years, compounding a problem many already believe dire.

Grand Coulee and Bonneville have a combined generating capacity of more than 7,500 megawatts of power. To meet the same electric load and reliability of just these two dams, the options are limited to numerous fossil fuel plants that dot the landscape and blacken the sky or politically onerous nuclear reactors.

Green power projects are expensive and produce far fewer megawatts. Renewables such as wind and solar energy are intermittent and do not produce power 24/7.

Until technology catches up with need, where adequate storage capacity for wind and solar energy, and carbon sequestration for coal plants are commercial realities, hydro-

power remains the best option for consumers who are fiscally prudent and climate change conscious.

But getting that message to resonate with some lawmakers has been difficult, says Lori Anderson, president of the board of directors of Columbia Basin Electric Cooperative, based in Heppner, Oregon, and president of the board of directors of the Oregon Rural Electric Cooperative Association (ORECA), a public power trade association.

“We can make a difference before politicians pass drastic climate change legislation,” Anderson says. “New legislation needs to be fact based and science based, instead of just saying, ‘Let’s hurry up and pass climate change legislation so it looks like we’re doing something.’”

ORECA in 2007 worked with

Oregon lawmakers to exempt small utilities from a new renewable energy mandate sought by Gov. Ted Kulongoski.

Public utilities throughout the BPA transmission area believe they already meet low-emissions standards through their distribution of hydroelectricity.

In Columbia Basin Electric’s territory, growth is slow and there is no need for utility-level generation, Anderson says.

“If we had to build a green power source, look at all the emissions that would be created by building it,” she says. “All of our materials have to be trucked in or barged in. If we’re required to reduce our emissions, how do we do it? Maybe through our vehicles, but our electricity is already emissions free.”

Anderson also is concerned about climate change legislation that does not address the financial burden small utilities would face from stiffer regulations.

“Without knowing the economics, why would you move forward?” she asks.

Before writing off large dams as having a negative impact on the Northwest rather than a positive one, Anderson suggests people revisit the region’s history.

When President Roosevelt dedicated Bonneville Dam on September, 28, 1937, he emphasized the wise use of federal resources to improve the lives of Americans.

“Truly, in the construction of this dam, we have had our eyes on the future of the nation,” Roosevelt said. “Its cost will be returned to the people of the United States many times over in the improvement of navigation and transportation, the cheapening of electric power, and the distribution of this power to hundreds of small communities within a great radius.”

For Anderson, those words still resonate today.

“There are thousands of miles of remote rural places that are served by the dams,” she says. “There are still a lot of people who couldn’t get their power anywhere else.” ■