## **Columbia River Dams**

Roosevelt had declared in his 1932 Portland speech, "The next great hydroelectric development ... must be on the Columbia River," which drained an area six times as large as the Tennessee and carried 40 percent of North America's potential hydroelectric power. In 1931, during the Hoover administration, the Army Corps of Engineers had proposed a series of ten dams—from Grand Coulee, 75 miles northwest of Spokane, downstream to where the river cuts through the Cascade Mountains, near North Bonneville, 40 miles east of Portland. Bonneville would be a "run-of-the-river" dam, with no reservoir to regulate the river's flow. The dam and reservoir upstream at Grand Coulee, and eventually those at sites between, would be "adjustable flow," allowing the dam's power production to more closely match demand. Although the plan included extensive hydropower development, the Corps had recommended government funding only to make navigation of the river possible, not for the construction of any power plants. Hoover was still president, and power plants were supposed to be developed by private companies.

Under Roosevelt, that policy changed. . . . The bill the president signed in June authorized funds for both the Grand Coulee and Bonneville, but it was uncertain whether funding would be sufficient in the early 1930s to provide appropriations for both projects.

As in the Tennessee Valley, opponents of public power in the Northwest were skeptical that a market existed for the massive amounts of electricity the government intended to generate. Republican Congressman Francis Culkin claimed, "Up in the Grand Coulee area there is no one to sell the power to except the jack rabbits and the rattlesnakes." Private utilities disparaged Bonneville and Grand Coulee as "white elephants in the wilderness." But Roosevelt was confident, as Norris and Lilienthal were, that cheap power would stimulate demand.

By 1937 thousands of refugees from the Dust Bowl were seeking work or farmland in Washington and Oregon. When Roosevelt dedicated Bonneville Dam and pushed a button to start its first generator on September 28, the refugees' presence in these states inspired his forceful argument for government planning and conservation, which he asserted could have prevented the destitution, the abandonment of farms, and the migration of thousands of families from the center of the country. He challenged those who "take the point of view that it is not the concern of Federal or State or local government to interfere with what they miscall 'the liberty of the individual.' ... My conception of liberty does not permit an individual citizen or group of citizens to commit acts of depredation against nature...." The next day the *New York Times* endorsed planning to conserve natural resources but expressed reservations about Roosevelt's embrace of "planning' in the sense of attempting to substitute governmental control for the processes of free competition and the open market."

Several days later, at the Grand Coulee construction site, Roosevelt praised the progress that had been made and bragged about "the largest structure ... that has ever been undertaken by man in one place." The nearly mile-wide dam would have no fish ladders, and it would eliminate salmon from vast reaches of the upper Columbia and destroy ecosystems vital to several Native American tribes. But the president, who hoped for a conservation legacy like that of "Cousin Teddy," did not on this or any other public occasion discuss the environmental impact of the Columbia River dams.

Both Bonneville and Grand Coulee severely limited the passage of salmon and steelhead trout in both directions between their upstream spawning grounds and the ocean. The fish-kill problem was not unknown in the 1930s, when the dams were planned. But the impacts were unclear and not widely known outside the scientific and environmental communities at the time, while the benefits of cheap hydropower were obvious and highly popular.

As for the initial hopes of the administration to create a TVA-like Columbia Valley Authority, the demands of war and politics induced Roosevelt to change course. He no longer had a compliant Congress, and [Commonwealth & Southern's] unhappy experience with TVA had intensified the opposition of private utilities. During the presidential campaign, Willkie had given a full airing to the utility side of the argument, and extensive public relations campaigns by utilities in the Northwest characterized the Columbia Valley Authority idea as unnecessary and un-American. It was not a fight Roosevelt needed.

In August 1940 he made the Bonneville *Project* Administration the transmission and marketing agency for power from Grand Coulee as well as Bonneville, changing its name to the Bonneville *Power* Administration. The expanded authority triggered renewed struggles over pricing. BPA, reflecting Roosevelt's priorities, wanted to sell the power as cheaply as possible to encourage further electrification of homes and farms. The Bureau of Reclamation, which still operated Grand Coulee, wanted high rates to help subsidize its irrigation projects in the region. The private utilities wanted even higher rates for BPA power, knowing that the public preference requirement would direct much of it to their competitors. Eventually BPA and the Bureau agreed to a rate structure providing some subsidies for irrigation, but the rates were still low enough to give the Pacific Northwest some of the cheapest power in the country.

BPA sold 5.6 billion kilowatt hours in 1943 and over 9 billion in 1945—3.4 billion from Bonneville Dam and 5.7 billion from Grand Coulee. It powered smelters that produced over a third of the nation's aluminum and the raw material for over 10,000 combat aircraft, and shipyards that produced almost 750 large

ships for the war effort. Its master grid of 2,737 circuit miles of transmission lines, planned as a ten-year project, had been completed in five years.

In addition, TVA and BPA were essential to the secret Manhattan Project to develop an atomic bomb. Two huge facilities were built near their sources of abundant power. One, in Oak Ridge, Tennessee, produced enriched uranium; the other, in Hanford, Washington, produced plutonium. Both processes required massive quantities of electricity. Enriched uranium was used in the bomb dropped on Hiroshima on August 6, 1945, and plutonium in the one dropped on Nagasaki three days later.