Hydropower is Available

NHA
National Hydropower Association

U.S. Hydropower Supply Chain Snapshot

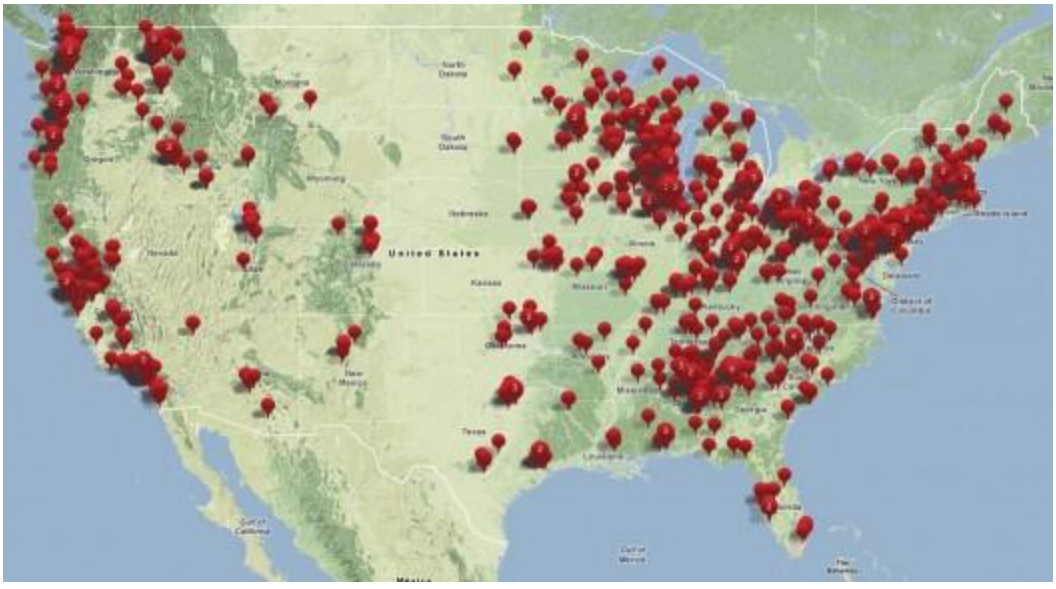
The U.S. hydropower industry is a vibrant, growing part of the American energy economy. As the first-ever **U.S. Hydropower Supply Chain Snapshot** shows, the hydro industry supports a thriving domestic supply chain that benefits regions and communities across the country.

The U.S. Hydropower Supply Chain Snapshot features nearly 2,000 companies in the non-federal hydro supply chain. Those companies include small, medium and large firms, and range from project developers to construction companies; architecture and engineering firms to electricians; and component manufacturers to biologists.

Much of the hydro industry's growth has come through the modernization of existing facilities; the conversion of non-powered dams; and the deployment of pumped storage, hydrokinetic, and conduit technologies. It's an industry that is ready to grow even more.

Hydro's supply chain also stretches across the country — and in places not usually associated with clean energy, like the South and the Rust Belt.

The Snapshot clearly shows that smart, targeted federal policies to incentivize investment have paid dividends around the country. And it shows what's at risk if Congress fails to provide a stable, predictable policy environment for renewable energy moving forward.



The U.S. Hydropower Supply Chain Snapshot was developed using data from a representative sampling of NHA's 200 members, which includes project developers, generators, and major suppliers in the non-federal system. It is not a comprehensive listing of every company in the hydro supply chain. Moving forward, NHA will be working with additional members to expand the number of companies represented.

WESTERN U.S. HYDRO GENERATION PROFILE, 2009

State	Conventional Hydro MWh	Total MWh	Total Renewables MWh	Hydro as a % of total	Hydro as a % of renewable	Powered & Non-powered Dams
Alaska	1,433,141	6,759,576	1,452,052	21.2%	98.7%	96
Arizona	6,622,160	111,750,957	6,941,067	5.9%	95.4%	346
California	33,430,870	204,125,596	58,880,591	16.4%	56.8%	1,468
Colorado	1,578,264	50,720,792	5,132,797	3.1%	30.7%	1,795
Hawaii	70,423	10,836,036	817,391	0.6%	8.6%	138
Idaho	9,154,244	12,024,564	10,168,254	76.1%	90.0%	428
Montana	9,414,662	29,791,181	10,441,819	31.6%	90.2%	2,916
Nevada	2,157,296	35,146,248	4,443,943	6.1%	48.5%	512
New Mexico	217,010	36,251,542	2,071,802	0.6%	10.5%	519
Oregon	30,542,260	55,126,999	35,299,140	55.4%	86.5%	935
Utah	695,512	42,249,355	1,476,479	1.6%	47.1%	795
Washington	68,288,383	103,472,729	74,905,347	66.0%	91.2%	746
Wyoming	1,023,887	48,119,254	4,270,680	2.1%	24.0%	1,416

Sources: USACE NID, EIA

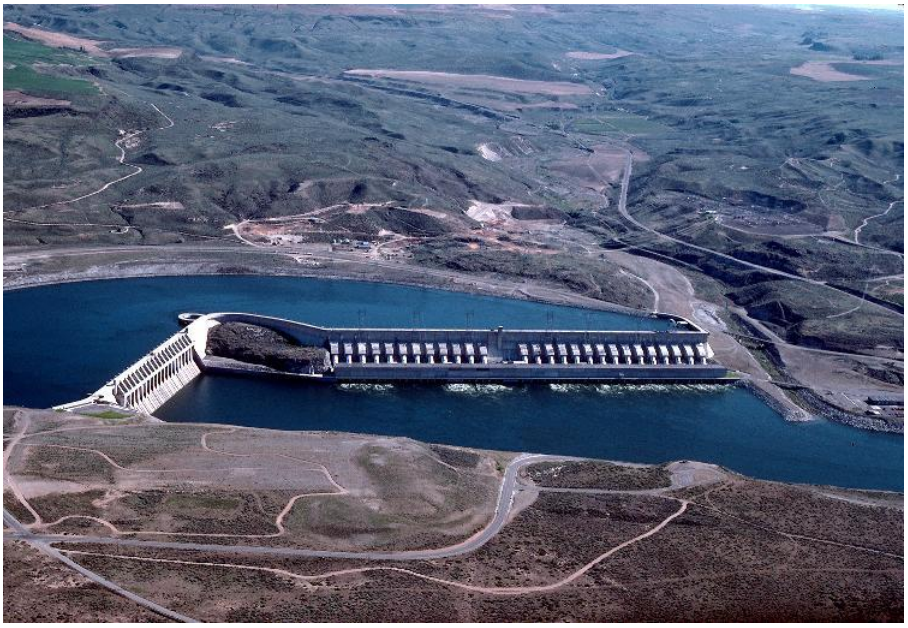
Hydropower in the West

Hydropower accounts for more than 20 percent of all the electricity generation in these 13 western states. In states like Washington, Oregon and Idaho, hydropower accounted for more than half of each state's electricity generation in 2009. Fed by powerful waterways like the Colorado and Columbia rivers, electricity from hydropower helps several western states enjoy some of the lowest electricity prices in the country as well as cleaner air.

Project Highlight: Alstom Power Inc.

The second largest hydropower dam in the United States is getting a 21st century upgrade thanks to National Hydropower Association member Alstom Power Inc. The company is currently at work on the manufacture, supply and refurbishment of several Francis turbine components for the Chief Joseph Dam project in Bridgeport, Washington.

Chief Joseph Dam, the largest dam operated by the U.S. Army Corps of Engineers, was originally completed in 1961. It is home to the nation's longest straight-line powerhouse and sends clean, affordable power to eight western states.



This modernization project will increase the facility's power generation capacity by more than 40 MW and boost turbine efficiency to 95% or better. Alstom's new ultra-efficient Francis runners (the central, rotating parts of hydroelectric turbines) are not only bringing the facility up to date, but when completed, will also deliver clean electricity to an additional 30,000 homes in the Northwestern U.S.

Already underway, the $120 million project will provide an economic boost to the region through 2017. Installing the new Alstom equipment will also protect wildlife such as salmon and steelhead. The project is an example of the incredible opportunities to grow renewable energy generation sustainably at the country's existing dams.

Above material is an excerpt from the National Hydropower Association report: U.S. Hydropower Supply Chain Snapshot.

The NHA "U.S. Hydropower Supply Chain Snapshot" was released in conjunction with a report from the U.S. Department of Energy that claimed American rivers could generate thousands more megawatts of electricity without any new dams, helping the United States to get 15 percent of its electricity from hydropower.

April 17, 2012