



# HYDRO WORKS FOR AMERICA

## Hydropower: For a Clean Energy Future

Hydropower is a sustainable-energy solution that America needs. Clean hydropower is essential to addressing our nation's greatest challenges: achieving energy independence, creating jobs, and combating climate change.

### Leading U.S. Renewable Resource

Available in every region of the country, hydropower is America's largest source of clean, renewable electricity, accounting for 67 percent of domestic renewable generation and 7 percent of total electricity generation. It is a reliable, proven, and domestic technology that can expand in environmentally friendly ways.



### Stable, Reliable Electricity

In addition to clean electricity production, hydropower serves an essential purpose: Stabilizing America's electric grid. Hydropower can adjust output rapidly, to serve real-time electricity demand. Hydro's "black start" capabilities helped restore power after the 1965, 1977, and 2003 blackouts.

Hydropower also enables the integration of more variable renewable energy resources, like solar and wind, onto the electric grid as in Europe.

### Climate-Friendly Energy

Current, U.S. hydropower generation annually avoids 225 million metric tons of carbon emissions, equivalent to the output of approximately 42 million passenger cars.

Hydropower's positive impact has been documented through satellite imagery showing that the Pacific Northwest – the country's most hydro-intensive region – is an "island" of low-carbon emissions in the United States.

**Hydropower is a renewable, affordable, and domestic electricity resource for American families and businesses.**

## Hydropower = 1.4 million jobs

According to a study from Navigant Consulting, America's hydropower industry has the potential to create over 1.4 million cumulative jobs by 2025. These are good-paying engineering, manufacturing, construction, and operations jobs that could revitalize American communities. With the right federal policies, the hydropower industry has the potential to create jobs in every state, building a 21<sup>st</sup> century clean energy infrastructure.



President Barack Obama, shown touring Voith Hydro's York, PA, manufacturing facility with CEO Mark Garner during the 2008 campaign, has called on hydro and other renewables to double.

## Hydro Can Double

Today the U.S. hydropower capacity is 96,000 megawatts (MW). The industry has a goal to double its contribution to our national energy portfolio. This growth in capacity will be made possible by new technologies and other advancements:

- **Pumped Storage:** The largest utility-scale energy storage option in wide use today, this clean energy solution provides grid reliability benefits, is vital to maintaining the balance between supply and demand, and enables the greater use of variable renewable sources like solar and wind.
- **Converting Non-Powered Dams:** Less than 3% of the country's 80,000 dams generate electricity. By adding generation to these dams, we can help meet our growing power needs.
- **New Capacity and Modernization:** By modernizing turbines at existing hydroelectric facilities and adding new capacity, we can maximize our renewable-energy generation with these readily-deployable projects.
- **Hydrokinetic Technologies:**
  - In-stream Generation: By harnessing the power of moving currents, these "underwater windmills" and other technologies represent a promising new hydropower development.
  - Ocean and Tidal Power: These technologies, which use the natural movement of waves and tides, have incredible generation potential.

## Wanted: The Right Policies for Growth

For America's hydropower industry to grow, create jobs, and reduce emissions, we need the right policies to create certainty and unleash the power of the private market:

- **Strong Renewable Electricity Standard:** A meaningful standard that grows the renewable electricity industry, keeps jobs in the U.S., and attracts long-term investment.
- **Tax Credit Parity:** Playing such a vital role in America's renewable electricity future, hydropower should receive tax treatment on par with other renewable technologies (i.e. hydropower currently receives only one-half the value of the production tax credit).
- **Tax Credit Extension:** For qualifying hydroelectric technologies, production and investment tax credits should be extended to 2019 and new tax incentives are needed for pumped storage.
- **More Efficient Regulatory Process:** For minimal impact projects, such as converting existing non-powered dams and closed-looped pumped storage projects, the regulatory process takes years to complete. Expediting the process will help developers attract financing, putting hydro on equal footing with other renewable and clean energy resources in the marketplace for investment.