



# “Assessment of Waterpower Potential and Development Needs” By the Numbers

A quick look at the growth potential of hydropower by the year 2025, as detailed in the March 2007 report released by the Electric Power Research Institute.

## GENERAL OVERVIEW

- **270,000 GWH** - existing hydropower generation in the United States (75 percent of U.S. renewable energy generation—the largest renewable source)
- **90,000 MW** - overall water potential available
- **23,000 MW** - potential capacity increase by 2025

## BY 2025, CONVENTIONAL POTENTIAL

- **10,000 MW** - overall potential increase
  - **2,700 MW** - from new small and low-power conventional hydropower
  - **2,300 MW** - from capacity gains and efficiency improvements at existing hydropower facilities
  - **5,000 MW** - from new hydro at existing non-powered dams



Copies of the EPRI report are available at [www.wpri.com](http://www.wpri.com). Search for report #1014762.

## By 2025, NEW WATERPOWER TECHNOLOGY POTENTIAL

- **10,000 MW** - increase from ocean and wave energy devices
- **3,000 MW** - increase from new hydrokinetic technologies

National Hydropower Association

**Hydropower is a domestic source of renewable, reliable, and affordable electricity. No other energy source offers so many advantages.**

**Domestic and Secure**

Domestic hydropower is a secure energy source that is not subject to disruptions from foreign suppliers, just like oil, coal, and natural gas.



**Efficient**

Today's hydropower turbines are capable of converting more than 90% of available energy to electricity, which is more efficient than any other form of generation (the best fossil fuel power plant is only about 50% efficient).

**Renewable**

Every year, rain and snow provide a natural "recharge" of hydropower's potential. It is continually renewed and is not depleted during the generation of electricity. Hydropower facilities simply harness the natural energy of flowing water to generate electricity.

**Popular**

Nationally, 63% of individuals believe hydropower is important or very important for meeting future electricity needs.

*Source: U.S. Environmental Protection Agency, 2002*

**Clean**

Hydropower uses water to generate electricity. It is abundant, locally available, and produces no pollution or other toxic by-products.

**HydroPOWER**  
the power of moving water

*Clean power for a secure energy future*

**Any moving water has the potential to make power**



**Water used for power is returned to the water cycle**

**The hydrologic cycle**

*Source: EPA, "Hydropower: Energy from Hydro." <http://www.epa.gov/epaospr/energy/hydro.htm>*

**Reliable**

Hydropower can go from coal power to wind power and electricity can be produced when there is no wind. Hydropower is available 24 hours a day, 7 days a week, and is not affected by weather conditions. It is a secure energy source that can be used in any climate.

**Flexible**

Hydropower has the unique ability to change output quickly. It can be used to generate base load, peak load, and intermediate load power. It also can be used to provide seasonal and daily load shedding to support the electric grid at any time. It can generate power in both wind and water energy.

**Non-power benefits**

Hydropower projects do more than just provide electricity; they can also improve water quality, provide flood control, and provide recreation. Hydropower projects can also provide water for irrigation, provide flood control, and provide recreation. Hydropower projects can also provide water for irrigation, provide flood control, and provide recreation.



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