

## Federal Incentives for Water Power

The U.S. Department of Energy's (DOE's) Water Power Program works to accelerate the deployment of water power technologies such as hydro-power, wave, tidal, and current devices. This document lists some of the major federal incentives for water power. This list is current as of April 2013.

### Research and Development Grants

The DOE Water Power Program periodically posts competitive solicitations for R&D grants to improve the performance and lower the cost of water power, or to reduce barriers to deployment.

[water.energy.gov/financial\\_opportunities.html](http://water.energy.gov/financial_opportunities.html)

DOE's Advanced Research Projects Agency-Energy (ARPA-E) sponsors R&D grants for earlier-stage, high-potential, high-impact energy technologies.

[arpa-e.energy.gov/?q=programs/apply-for-funding](http://arpa-e.energy.gov/?q=programs/apply-for-funding)

DOE's Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) Program offers periodic solicitations for small businesses.

[science.energy.gov/sbir/funding-opportunities/](http://science.energy.gov/sbir/funding-opportunities/)

While DOE generally does not fund the purchase or installation of water power systems by individuals or companies, there are a number of government-sponsored deployment incentives as outlined in this publication.



By the end of 2012, the United States had 78 GW of installed hydropower capacity, and the nation's first grid-connected wave and tidal power projects are being deployed off U.S. shores. *Photo from U.S. Army Corps of Engineers, NREL 06595*

### Incentives for Businesses

The federal government uses several tax-based policy incentives to stimulate the deployment of renewable energy. The Department of the Treasury's Internal Revenue Service (IRS) administers these incentives.

The federal **Renewable Electricity Production Tax Credit (PTC)**, established by the Energy Policy Act of 1992, allows owners of qualified renewable energy facilities—hydroelectric and marine and hydrokinetic (MHK) (including wave, tidal, ocean thermal, and hydrokinetic)—to receive tax credits for each kilowatt-hour (kWh) of electricity generated and sold by the facility over a 10-year period. Qualified hydroelectric or MHK facilities or hydropower efficiency improvements are eligible to receive 1.1 cents per kWh (indexed for inflation). [dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=US13F](http://dsireusa.org/incentives/incentive.cfm?Incentive_Code=US13F)

The federal **Business Energy Investment Tax Credit (ITC)** is a corporate tax incentive that allows for owners of qualified new hydroelectric or MHK generation systems to receive tax credits worth 30% of the value of the facility. [dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=US02F](http://dsireusa.org/incentives/incentive.cfm?Incentive_Code=US02F)

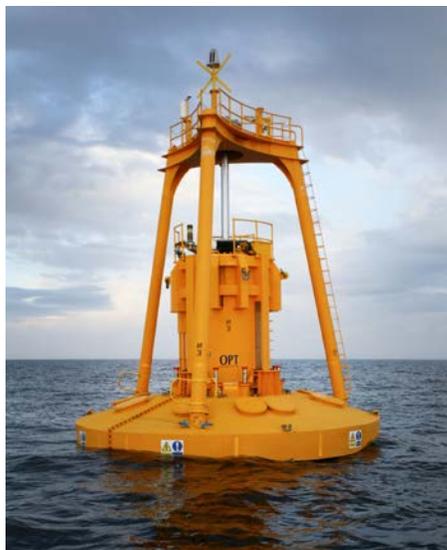
Project owners must choose between the one-time Investment Tax Credit, tied to the total value of the facility, and the Production Tax Credit, tied to the energy produced over a ten year period. To qualify for either the PTC or the ITC, these projects must begin construction by December 31, 2013, which is defined as starting physical work of a significant nature or incurring 5% of the total project cost. [irs.gov/pub/irs-drop/n-13-29.pdf](http://irs.gov/pub/irs-drop/n-13-29.pdf)

The **Advanced Energy Manufacturing Tax Credit** (commonly referred to as 48C), established by the Recovery Act, supports investment in domestic clean energy and energy efficiency manufacturing facilities through a

competitively-awarded 30% investment tax credit. Concept papers are due April 9, 2013, and projects will be assessed by DOE based on the following criteria: commercial viability, domestic job creation, technological innovation, speed to project completion, and potential for reducing air pollution and greenhouse gas emissions. [energy.gov/downloads/fact-sheet-48c-manufacturing-tax-credits](http://energy.gov/downloads/fact-sheet-48c-manufacturing-tax-credits)

The **Modified Accelerated Cost-Recovery System (MACRS)** allows businesses to recover investments in MHK property through depreciation deductions over a 7-year period following purchase. The American Taxpayer Relief Act of 2012 extended the deadline for the 50% first-year bonus depreciation to December 31, 2013. [dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=US06F](http://dsireusa.org/incentives/incentive.cfm?Incentive_Code=US06F)

DOE offers **loan guarantees** to help companies secure financing to deploy innovative, clean energy technologies that reduce, avoid or sequester carbon dioxide and other emissions. The Recovery Act provides a new, temporary addition to the



Ocean Power Technologies' PowerBuoy™ converts wave energy into electricity. Photo courtesy of Ocean Power Technologies, NREL 22857



Ocean Renewable Power Company's TidGen™ converts ocean and river currents into clean renewable electricity. Photo from Ocean Power Technologies, NREL 24507

existing program that is aimed at standard renewable projects, including water power projects. [lgprogram.energy.gov](http://lgprogram.energy.gov)

### Incentives for Tax-Exempt Entities

Several incentives are available to stimulate the deployment of water power by certain tax-exempt entities that cannot take advantage of tax credits.

Qualified Energy Conservation Bonds (QECBs) allow qualified state, tribal, and local government issuers to borrow money at attractive rates to fund energy efficiency and renewable energy projects. A QECB is among the lowest-cost public financing tools because the U.S. Department of Treasury subsidizes the issuer's borrowing costs. Issuers may choose between structuring QECBs as tax credit bonds or as direct subsidy bonds. Both tax credit and direct payment bonds subsidize borrowing costs—most QECBs are expected to be issued as direct subsidy bonds due to the current lack of investor appetite for tax credit bonds. QECB proceeds can be used to fund capital expenditures on water power

projects that spur rural development. [irs.gov/pub/irs-drop/n-09-29.pdf](http://irs.gov/pub/irs-drop/n-09-29.pdf)

In addition, DOE's Tribal Energy Program provides financial and technical assistance, education, and training to tribes for the evaluation and development of renewable energy resources on tribal lands. [eere.energy.gov/tribalenergy/](http://eere.energy.gov/tribalenergy/)

### Other Incentives

The U.S. Department of Agriculture provides farmers and ranchers with grants for renewable energy development assistance through its Rural Energy for America Program (REAP). Certain entities, such as state, local, and tribal governments, educational institutions, and rural electric cooperatives, are also eligible for these grants. [rurdev.usda.gov/energy.html](http://rurdev.usda.gov/energy.html)

Additional resources for information on financial incentives:

DOE's Office of Energy Efficiency and Renewable Energy [eere.energy.gov/financing](http://eere.energy.gov/financing)

Database of State Incentives for Renewable Energy [dsireusa.org](http://dsireusa.org)