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Departments of Energy and Interior Announce $26.6 Million in Funding to Develop Advanced Hydropower Technologies

Washington, D.C. - U.S. Department of Energy Secretary Steven Chu and U.S. Department of the Interior Secretary Ken Salazar today announced $26.6 million in funding for research and development projects to advance hydropower technology, including pumped storage hydropower. This funding is focused on development of innovative technologies that can produce power more efficiently, reduce costs and increase sustainable hydropower generation at sites not previously considered practical.

"By improving hydropower technology, we can maximize America's biggest source of renewable energy in an environmentally responsible way," said Secretary Chu. "Deploying advanced hydropower, including using water to store energy, will help meet peak electricity demands and provide additional clean energy sources for America's future."

"Supporting advanced, environmentally friendly hydropower will help bring our nation closer to reaching the Administration's goal of meeting 80 percent of our energy needs with clean sources by 2035," said Secretary Salazar. "These funding opportunities will help unlock innovative approaches to hydropower development that emphasize sustainable, clean power generation while reducing environmental impacts."

Hydropower is a minimal-emission, low-cost source of energy that can be relied upon for long-term, stable production of domestic electricity. The funding announcement seeks environmentally responsible projects that increase the generation of reliable hydropower for the nation's electricity supply. Projects will be selected in four areas:

- **Sustainable Small Hydropower** ($10.5 million awarded over 3 years): These projects will research, develop, and test low head small hydropower technologies that can be quickly and efficiently deployed in existing or constructed waterways. DOE will fund system or component model development, as well as the testing of these systems.
- **Environmental Mitigation Technologies for Conventional Hydropower** ($2.25 million awarded over 3 years): These projects will develop innovative conventional hydropower technologies that feature enhanced environmental performance designs to increase electricity generation while mitigating fish and habitat impacts and enhancing downstream water quality. As an example, concepts that demonstrate turbine efficiencies greater than 90 percent and fish passage survival greater than 96 percent will be sought.
- **Sustainable Pumped Storage Hydropower** ($11.875 million awarded over 4 years): DOE intends to provide technical and financial assistance to accelerate pumped storage hydropower projects already in the pipeline. Projects that begin construction by 2014 and integrate wind and/or solar will be preferred. DOE will also support analyses that calculate the economic value of pumped storage hydropower in dynamically responding to the grid and in providing other ancillary services.
- **Advanced Conventional Hydropower System Testing at a Bureau of Reclamation Facility** ($2.0 million awarded over 3 years): These projects will support system tests of innovative, low-head hydropower technologies at non-powered hydro facilities and sites owned by the U.S. Department of the Interior's Bureau of Reclamation. The deliverable includes testing to demonstrate energy cost reductions that could be replicated at other Bureau of Reclamation sites. Both the Bureau and Department of Energy are sponsoring this work.

DOE will evaluate applications based on the metrics and guidelines published in the solicitation and will award funding on a competitive basis to a variety of projects and to technologies at various levels of development. Mandatory letters of intent are due May 5, 2011, and completed applications are due June 6, 2011. For more details on this opportunity, see the Funding Opportunity Announcement (https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0000486&agency=DOE) . Funding is subject to

annual Congressional appropriations.

The solicitation is issued by DOE's Wind and Water Power Program, which works to research, test, and develop innovative technologies capable of generating renewable, environmentally responsible, and cost-effective electricity from wind and water power. For more information on how the program works to develop advanced hydropower technologies, please visit the Water Power Web page (http://www1.eere.energy.gov/windandhydro/index.html) .

The Bureau of Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its 58 power plants annually produce, on average, 40 billion kilowatt-hours per year, enough to meet the needs of 9 million people. Last week, Interior released a study that shows the department could generate up to one million megawatt hours of electricity annually and create approximately 1,200 jobs by adding hydropower capacity at 70 of its existing Bureau of Reclamation facilities. For more information, please visit the Bureau of Reclamation Hydroelectric Power website (http://www.usbr.gov/power/) .

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