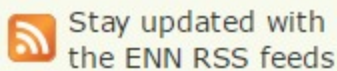




JOIN THE CONVERSATION!



ENN MEMBERS

- » [Our Editorial Affiliate Network](#)
- » [Partner Sites](#)

PRODUCTS & SERVICES

- » [Submit a News Release](#)
- » [Be a Part of ENN](#)

ADVERTISE WITH ENN

- » [Why Advertise with ENN](#)
- » [Contact ENN Sales Team](#)

ENN ARCHIVES

- » [News Archive](#)

ABOUT ENN

- » [History](#)
- » [Mission Statement](#)
- » [Our Staff](#)
- » [Editorial Philosophy](#)
- » [Contact ENN](#)
- » [ENN Terms](#)
- » [Fair Use Notice](#)

Printer Friendly Version

ShareThis

From: Oregon State University via EurekAlert!
Published July 1, 2016 07:10 AM

New technology could improve use of small-scale hydropower in developing nations

Engineers at Oregon State University have created a new computer modeling package that people anywhere in the world could use to assess the potential of a stream for small-scale, "run of river" hydropower, an option to produce electricity that's of special importance in the developing world.

The system is easy to use; does not require data that is often unavailable in foreign countries or remote locations; and can consider hydropower potential not only now, but in the future as projected changes in climate and stream runoff occur.

OSU experts say that people, agencies or communities interested in the potential for small-scale hydropower development can much more easily and accurately assess whether it would meet their current and future energy needs.

Findings on the new assessment tool have been published in *Renewable Energy*, in work supported by the National Science Foundation.

"These types of run-of-river hydropower developments have a special value in some remote, mountainous regions where electricity is often scarce or unavailable," said Kendra Sharp, the Richard and Gretchen Evans Professor in Humanitarian Engineering in the OSU College of Engineering.

"There are parts of northern Pakistan, for instance, where about half of rural homes don't have access to electricity, and systems such as this are one of the few affordable ways to produce it. The strength of this system is that it will be simple for people to use, and it's pretty accurate even though it can work with limited data on the ground."

The new technology was field-tested at a 5-megawatt small-scale hydropower facility built in the early 1980s on Falls Creek in the central Oregon Cascade Range. At that site, it projected that future climate changes will shift its optimal electricity production from spring to winter and that annual hydropower potential will slightly decrease from the conditions that prevailed from 1980-2010.

Small-scale hydropower, researchers say, continues to be popular because it can be developed with fairly basic and cost-competitive technology, and does not require large dams or reservoirs to function. Although all forms of power have some environmental effects, this approach has less impact on fisheries or stream ecosystems than major hydroelectric dams. Hydroelectric power is also renewable and does not contribute to greenhouse gas emissions.

Continue reading at [Oregon State University](#).

Image via [Oregon State University](#).



RELATED ARTICLES

- » [Scotland could boost hydropower by 50 pct - study](#)
September 3, 2008 09:30 AM
- » [Water Power Rise](#)
June 20, 2012 02:40 PM
- » [Deforestation Dries Up Dams Threatening Hydropower](#)
May 23, 2013 11:08 AM
- » [Climate Change predicted to reduce output of California Hydro-electric plants](#)
August 8, 2012 07:36 AM



FEATURED AFFILIATE ➔

ECOREport

View all the featured contributing content by this source

METEOROLOGICAL
DATA SERVICES
AVAILABLE
WORLD WIDE

