

U.S. Department of Energy Funds Syndem to Advance its Solar Inverter Technology

A \$600,000 award from the Department of Energy will enable greater use of solar power

CHICAGO, IL, USA, January 14, 2020 /EINPresswire.com/ -- SYNDEM, a global pioneer in renewable energy and smart grid, announced that it was selected to receive a \$600,000 award from the <u>U.S. Department of Energy Solar Energy Technologies Office</u> (SETO) to advance solar systems integration technologies. This project will further develop its patented virtual synchronous machines technology to sharply increase the use of solar power.



In making the award, the Department of Energy recognized the Syndem technology as an



Dr. Zhong's invention is a game changer for the grid. It is the sort of breakthrough that helps push an entire industry from one era to the next."

Keith Schneider, New York Times correspondent since 1982 essential advance to "better enable grid operators to add increasing amounts of solar generation onto the grid in a cost-effective, secure, resilient, and reliable manner." Syndem's converter technology will increase the use of solar power in homes and businesses by making it easier for grid operators to integrate much larger supplies of solar power into their networks, while also making solar systems more secure from cyberattack.

Syndem was selected as a part of the Solar Energy Technologies Office Fiscal Year 2019 funding program, an effort to invest in new projects that will lower solar electricity costs, while working to boost solar

manufacturing, reduce red tape, and make solar systems more resilient to cyberattack. Other awardees include General Electric, Oak Ridge National Laboratory, Georgia Institute of Technology, San Diego Gas & Electric, and the Electric Power Research Institute. In winning the award, Syndem establishes itself as a technology leader at the cutting edge of innovation rapidly transforming electrical generation and transport.

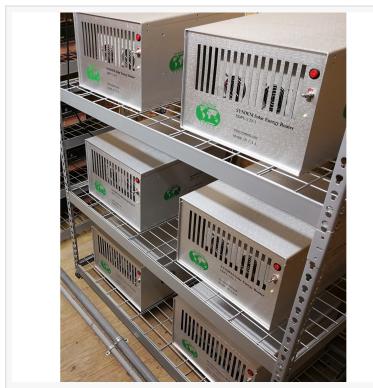
"We are very pleased to see that our thinking over the last nearly 20 years about future power systems has been recognized. This award will accelerate our pace in commercializing the technology and deploying it worldwide," said Dr. Qing-Chang Zhong, founder and CEO of Syndem.

Syndem's virtual synchronous machines technology allows solar inverters to automatically sense and quickly react to changes in electricity production and demand across the grid. If energy demand is high, power production increases. If grid voltage slumps, the converters will adjust to provide appropriate voltage support. The device guides power generators and consumers to

perform these tasks autonomously without signals from a central command center – which makes the whole system cheaper and less vulnerable to cyberattacks.

"Our ultimate goal is to unify all power supply sources connected to the grid with all the things that consume electricity from the grid," said Dr. Zhong. "Wind power, solar, electric vehicles, storage systems. They all are different. It's difficult for these players to work together. They have different currents and different voltages and they fight with each other. We have found the key to harmonize them so that they can work in a synchronized and democratized (SYNDEM) manner."

With this award, Syndem will be further advancing the technology for solar applications and undertaking field testing with 20 inverters in Texas, in



Syndem inverters

partnership with Texas Tech University, Group NIRE, and South Plains Electric Utility.

About Syndem

Syndem is leading the global development of next-generation smart grids based on the synchronization mechanism of synchronous machines. Syndem's technologies and products can harmonize the integration of renewable energy sources (such as wind and solar), electric vehicles, storage, and flexible loads. This will enable autonomous operation of power systems without relying on communication networks, improving grid stability, reliability, security, resiliency, and sustainability. Syndem is headquartered at the University Technology Park of Illinois Institute of Technology in Chicago with offices in Lubbock, TX and Binghamton, NY. Syndem is a member of the Southern Tier Clean Energy Incubator at Binghamton University funded by the New York State Energy Research and Development Authority (NYSERDA) and the START-UP NY program. Learn more at www.syndem.com.

About the Solar Energy Technologies Office

The U.S. Department of Energy Solar Energy Technologies Office supports early-stage research and development to improve the affordability, reliability, and performance of solar technologies on the grid. Learn more at energy.gov/solar-office.

Dr. Qing-Chang Zhong Syndem LLC +1 630-540-8226 email us here Visit us on social media: Facebook Twitter LinkedIn

This press release can be viewed online at: http://www.einpresswire.com

Disclaimer: If you have any questions regarding information in this press release please contact

the company listed in the press release. Please do not contact EIN Presswire. We will be unable to assist you with your inquiry. EIN Presswire disclaims any content contained in these releases. © 1995-2020 IPD Group, Inc. All Right Reserved.