Syndem to Provide Grid-forming Solar and Storage Inverters for a Project Selected by the U.S. Department of Energy

To be Installed at the 1 megawatt PV plant at Brookhaven National Laboratory

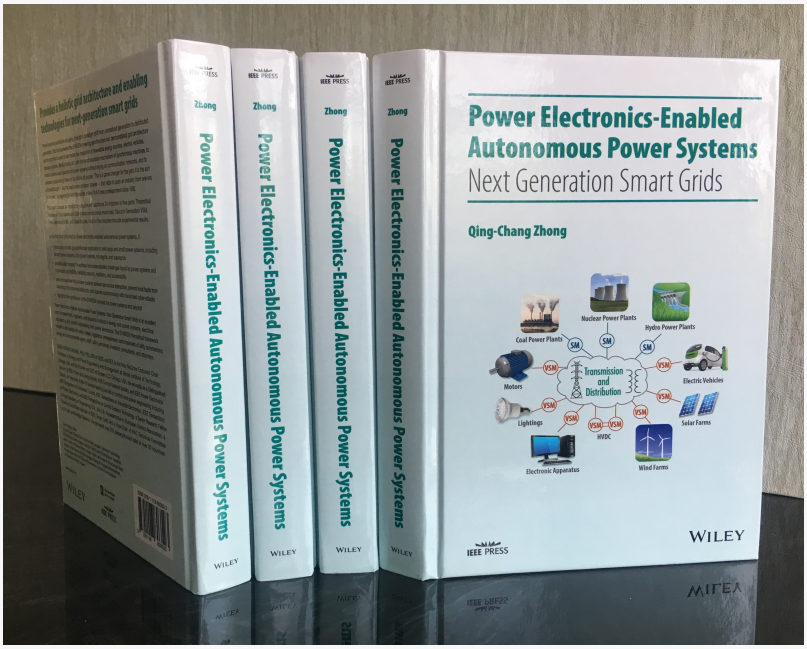
CHICAGO, IL, USA, December 21, 2020 /EINPresswire.com/ -- SYNDEM, a global pioneer in renewable energy and smart grid, announced that it was selected to serve as a vendor for a project selected by the U.S. Department of Energy as part of The Solar Energy Technologies Office Fiscal Year 2020 (SETO 2020) funding program. This is the third project Syndem LLC has received from the U.S. Department of Energy in 2020.

> Syndem is a world-leading supplier of grid-forming inverters. ”
>
> *Dr. Ziang (John) Zhang, Associate Professor, Binghamton Univeristy*

The project is led by Binghamton Univeristy - State University of New York, in collaboration with Stony Brook University, Brookhaven National Laboratory (BNL), National Renewable Energy Laboratory (NREL), New York Power Authority (NYPA), and Charge CCCV LLC (C4V).

This project is to develop a two-stage hybrid PV plant control framework that will enable the coordination of multiple hybrid photovoltaic (PV) plants with generation uncertainty and enhance grid stability through grid-forming inverter controls. The team will rely on state-of-the-art technologies, such as distributed control, dynamic state estimation, multi-agent reinforcement learning, distributed fault management, and GPU-parallel grid simulation. The framework will be demonstrated at a 1 megawatt hybrid PV plant controlled by grid-forming inverters at Brookhaven National Laboratory (BNL) and through the use of a hardware-in-the-loop system with 70% renewable penetration that will demonstrate the scalability and replicability of the proposed controls at New York Power Authority.

“We are very proud of being selected as the sole vendor to provide grid-forming solar and storage inverters for this project,” says Dr. Qing-Chang Zhong, founder and CEO of Syndem, “we look forward to working with partners to demonstrate our grid-forming inverters at the 1 megawatt PV plant at Brookhaven National Laboratory.”



Dr. Ziang (John) Zhang, Associate Professor at the Department of Electrical and Computer Engineering of Binghamton Univeristy, is the Principal Investigator of the project. He says, “Syndem is a world-leading supplier of grid-forming inverters. Their virtual synchronous machines technology has solved the compatibility problem of different distributed energy resources with the grid, which considerably enhances grid reliability and stability. We look forward to working with Syndem and other partners to advance solar technologies.”

About Syndem
Syndem is leading the global development of next-generation smart grids based on the synchronization-and-democratization mechanism to harmonize the integration of renewable energy sources (such as wind and solar), electric vehicles, storage, flexible loads etc. This will enable autonomous operation of power systems without relying on communication networks, improving grid stability, reliability, security, and sustainability, and advance global energy freedom for billions of people with access to low-cost clean electricity. 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). 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