

SunSpec Alliance Receives California Grant to Study and Deploy Communication Standards for Smart Solar Plus Storage

Total \$4 million project will deploy interoperable systems comprised of smart inverters, solar PV, and storage to evaluate economic and technical benefits to the California grid

September 10, 2015, SAN JOSE, Calif. -- The SunSpec Alliance today announced that it has signed a final grant agreement and received a \$2 million grant award from the California Energy Commission (CEC), plus another \$2 million in match funding from industry partners. The total of \$4 million will fund a study and field demonstration to investigate the application of interoperable smart inverters, solar PV, and storage to enhance grid stability and enable higher penetration of Distributed Energy Resources (DER). Further the study will explore new economic models enabled by solar plus storage that will drive rapid growth in the DER sector.

Key deliverables of this program include an open communication interface for smart inverters and energy storage devices; a test framework to prove communication interoperability and compliance to new California Rule 21 interconnection requirements; a field demonstration of 50 *smart energy homes* that will provide empirical data to validate the technical benefits of smart inverters on the grid; and a business analysis of the potential market impacts associated with utilizing DER systems to enhance grid stability.

“Smart Distributed Energy is here to stay,” said Tom Tansy, Chairman of the SunSpec Alliance. “The combination of advanced inverters, solar PV, and energy storage—bound together using open source standard communication protocols—will deliver an array of benefits to all Californians. This project is a wise investment that will decrease energy costs, improve grid infrastructure at lower cost, and open up new opportunities across the energy industry. SunSpec members and partners are taking the lead in driving standards and showcasing DER value.”

The project team includes 10 SunSpec Alliance member companies (ABB, Enphase, Ideal Power, KACO, OSISoft, Outback, SMA, SolarCity, SolarEdge, and Underwriter’s Laboratory); strategic partners Olivine, Straten, and the University of California, San Diego.

“We are pleased to partner with the SunSpec Alliance and its member companies on this important project. Our team will deploy 50 *smart energy homes* – including rooftop solar PV, battery storage, and dynamic load control devices – bound together into a single *virtual power plant*, and provide grid services to the distribution grid and wholesale CAISO market,” stated Ryan Hanley, Senior Director of Grid Engineering Solutions at SolarCity. “We plan to demonstrate the magnitude of benefits that these aggregated solutions can offer to customers, the distribution grid, and wholesale markets.”

“Before this cutting-edge technology is deployed to the grid, it will be exercised, tested, and validated in our microgrid’s ‘distributed energy incubator,’ part of one of the largest, most diversified portfolio of distributed energy resources in the world,” added Byron Washom, UC San Diego’s Director of Strategic Energy Initiatives. “Information technology is key to the smart grid. We are proud to help advance the testing of open standard SunSpec communication interfaces and improve California’s readiness to implement new CA Rule 21 changes.”



SunSpec won the grant in the CEC’s competitive bid process in response to the State Of California’s Program Opportunity Notice (PON-14-303) “Advancing Cleaner, Less Costly, More Reliable Distributed Generation to Enable Customer Solutions and Zero-Net Energy Communities.” For more detailed information on this project, please visit <http://sunspec.org/cec-pon-14-303/>. If you would like to arrange a briefing with the SunSpec Alliance or one of our member companies, please contact SunSpec at the coordinates below.

About the SunSpec Alliance

The SunSpec Alliance is a trade alliance of developers, manufacturers, researchers and service providers, together pursuing information and communications standards for the distributed energy industry. SunSpec standards address most operational aspects of PV, energy storage and other distributed energy power plants on the smart grid—including residential, commercial, and utility-scale systems—thus reducing cost, promoting innovation, and accelerating industry growth. More than 70 organizations are members of the SunSpec Alliance, including global leaders from Asia, Europe, and North America. Membership is open to corporations, non-profits, labs, governments and educational institutions. For more information about the SunSpec Alliance, or to download SunSpec specifications free of charge, please visit www.sunspec.org.

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