Greetings!

The year 2019 has been characterized by dramatic change in the Distributed Energy Resource (DER) industry. Communication networking has become integral to the process of interconnecting DER. As a result, regulators and policy makers around the world--from California to Australia and places in between--are now considering the logistical considerations of networked DER and its impact on energy finance and the grid operation. At the same time, the industry is being forced to reckon with cybersecurity.

SunSpec recently updated the SunSpec Modbus standard to reflect IEEE 1547 requirements. We also added support for JSON encoding and a RESTful web interface to make adoption easier. This interface enables the DER system--inverters, batteries, trackers, and meters--to be managed and programmed as an Internet-of-Things (IoTs). You can download the trio of standards defining this technology from the SunSpec web site. Please give us your comments and let us know what you think.

The year 2020 will mark the expansion of the SunSpec education program and our entry into workforce development. SunSpec and the U.S. Department of Energy are partnering on a project called “Cyberguardians and STEM Warriors,” a project that will deliver nine new courses covering DER networking, cybersecurity, and IT operations. All course work will be jointly accredited by the North American Board of Certified Energy Practitioners (NABCEP) and the University of California San Diego, and delivered via the Internet to students everywhere. SunSpec will help place graduates of this program, including U.S. military veterans, in jobs within the energy industry.

If you are interested in California Rule 21 and cybersecurity, please join us online on December 19 at 9 AM Pacific for an engaging discussion about system security considerations for DER networks in the California grid. For a more in depth discussion, join me at the S4x20 Cybersecurity Conference in Miami in January.

In closing, thanks to each of you for helping make clean, renewable, distributed energy the first and best choice on the planet. We wish you and yours a wonderful holiday season.

Kind regards,

Tom Tansy
Upcoming Office Closures
The SunSpec offices will be closed from **Tuesday, December 24th through Wednesday, January 1st**, reopening for normal business hours on Thursday, January 2nd. The team at SunSpec is thankful for your support in 2019, and wish all of you a warm and joyous New Year! We look forward to working with you in 2020!

SunSpec Models Review
SunSpec is pleased to announce the availability of the new SunSpec Information Models and related RESTful web service API standards for DER devices and systems. These new SunSpec standards are an upgrade on the SunSpec Modbus standard, which is backward compatible with these new technologies. SunSpec Information Models are ideally suited to Internet of Things (IoT), SCADA, and IEEE 2030.5 gateway applications.

The three documents related to this SunSpec standards release are currently in DRAFT status. We invite you to download, review, and give us your comments. The comment period will remain open until the end of January 2020.
The SunSpec Alliance, along with our partners - Kitu Systems, NABCEP, and UC San Diego, recently launched a new program in conjunction with the U.S. Department of Energy, Solar Energy Technologies Office, called Cyberguardians and STEM Warriors (Cyberguardians). This program grew out of a need SunSpec has seen in the solar industry. Robust solar industry growth has created a shortage of U.S. workers who are knowledgeable in emerging Distributed Energy Resource (DER) technologies, including networking, operational software, smart advanced inverters, smart advanced PV modules, and cybersecurity. To bridge this workforce skills gap, Cyberguardians is establishing a learning and career advancement system that will help veterans, transitioning military personnel, and other qualified individuals bridge their existing training with industry-specific DER knowledge and expertise.

We need your help to ensure curriculum development addresses specific skills needed in the DER industry for the next several years. Please take a few minutes to respond to our employment needs survey. It will take less than ten minutes of your time to help shape this program.

Welcome new members of the SunSpec Alliance!

Chilicon Power
Chilicon Power was founded under the premises of

Clearway Energy
Clearway is one of the largest developers and
sustainable organic growth from a business standpoint. Our microinverter and Gateway are designed in California and also manufactured in California. Visit Website

operators of clean energy in the United States with over 4.1 gigawatts of wind and solar in operation, including assets owned through our affiliate company, Clearway Energy, Inc. Visit Website

Enphase Energy
Enphase Energy, Inc. is a global energy technology company and the world’s leading supplier of solar microinverters. The Company delivers smart, easy-to-use solutions that connect solar generation, storage and management on one intelligent platform. Visit Website

Gamesa Electric
Gamesa Electric is a worldwide leader in the design and manufacturing of electrical equipment, with extensive experience in photovoltaics, hydro-electric energy, marine propulsion, wind power and energy storage applications, among others. Visit Website

Pason Power
Pason Power offers an end-to-end platform to design, control, manage, and aggregate advanced energy storage systems. Compatible with leading component suppliers, our solutions enable energy storage systems to serve as reliable grid assets for utilities, reduce costs for end users, and reduce risk for energy retailers. Visit Website

Pason Systems
Pason is the industry’s only oilfield specialist with a fully integrated drilling data solution. Visit Website

Schneider Electric
We provide energy and automation digital solutions for efficiency and sustainability. We empower all to make the most of their energy and resources, ensuring Life Is On everywhere, for everyone, at every moment. Visit Website

Socomec
Socomec is an electrical equipment design and manufacturing company, specializing in low voltage energy performance in terms of safety, service continuity, quality and energy efficiency. Visit Website
Secure Communication Networking for DER Education
Join current and future engineers working in the DER space in learning the information they need to design products that incorporate secure communication networking and deploy networks that incorporate these products. This online, nine-week course begins January 14, 2020 and is accredited through UC San Diego Extension.

More Information and Register

S4x20 Conference
January 20-23, 2020 • Miami Beach
Join Tom Tansy at S4x20 in Miami South Beach for a conference dedicated to optimistic, forward-looking, creative, robust security, ICS, and IoT. Tom will be presenting on January 21st on the topic of cybersecurity considerations for California Rule 21. If you plan to attend, contact membership@sunspec.org for a discount code.

More Information

UPCOMING WORK GROUPS

SUNSPEC/SANDIA CYBERSECURITY WORK GROUP

Cybersecurity Work Group Webinar

The SunSpec / Sandia DER Cybersecurity Work Group is will be hosting a public webinar entitled Lessons Learned In Setting Security Policy For IEEE 2030.5 on Thursday, December 19th, from 9:00 - 10:00am PST.

Register for Webinar

If you are interested in participating in the Work Group and are a SunSpec Member, contact membership@sunspec.org for details.
Blockchain Work Group

The Blockchain Work Group is working to create requirements and specifications for using blockchain technology to secure connected device credentials used in power grid communications.

The next meeting for the Blockchain Work Group is December 17th, from 9:00-10:00 am PST. If you are interested in participating and are a SunSpec Member, contact membership@sunspec.org for details.

Orange Button Work Group

The Orange Button Work Group is working to ensure that the Orange Button taxonomy continues to address the most compelling use cases in the Distributed Energy (solar + storage) data exchange realm and that the Orange Button web service API continues to evolve to meet the needs of the software development community.

The next Orange Button Work Group meeting will be held at the end of January. If you are
interested in participating, contact membership@sunspec.org.