



Greetings!

The Distributed Energy Resource (DER) market is transforming rapidly. In fewer than 12 months (about the time since the IEEE 1547-2018 standard was ratified), the conversation amongst DER asset investors has shifted from "what's my lowest cost PV module option?" and "should I add batteries?" to "how can I diversify revenue streams?" and "what is the best cybersecurity strategy?"

The SunSpec ecosystem has been driving this transformation. The SunSpec Certification program, now focusing on California (IEEE 2030.5/CSIP) and U.S. National Electrical Code (NEC) 2017 (PV Module Safety/Rapid Shutdown) requirements, has engaged **eight global SunSpec Authorized Testing laboratories**, many serving multiple customers. The **SunSpec/Sandia Cybersecurity Working Group**, more than 350 people strong, achieved an important milestone by delivering its fourth industry best practice this month. The **SunSpec Public Key Infrastructure (PKI)** welcomed 10 new companies and is helping to build the networked DER economy. You can learn about each of these topics in this edition and on SunSpec.org.

If you want an in-depth look at DER issues, **please consider taking an online class or meet face-to-face with us at our 10th Annual Members Meeting** in La Jolla, CA on October 3rd. You can also catch us at Solar Power International during the week of September 23 where we will be highlighting how the **Orange Button standard** is transforming solar finance.

As always, we appreciate your efforts to help perpetuate the DER standardization effort. Together we can build an energy infrastructure that our children and grandchildren will be proud to call their own.

Happy reading,

A handwritten signature in black ink, appearing to read 'Tom Tansy'.

Tom Tansy  
Chairman  
SunSpec Alliance

# SUNSPEC ANNUAL MEMBER MEETING

## ANNUAL MEMBER MEETING & 10-YEAR CELEBRATION



Annual Member Meeting  
Anniversary Reception & Dinner  
Thursday, October 3, 2019

UC San Diego Solar  
& Energy Storage Tour  
Friday, October 4, 2019

Grande Colonial Hotel • La Jolla, California

10 YEARS AND ON THE RISE

### Register for the SunSpec 2019 Annual Member Meeting and 10th Anniversary Celebration

Join us as SunSpec Alliance hosts our 2019 Annual Member Meeting and we celebrate our 10<sup>th</sup> Anniversary. The member meeting will be Thursday, October 3 with a celebratory dinner that evening. More activities are planned for Friday, October 4. For more information and registration [visit the event page here](#).

## 2030.5 | CSIP CALIFORNIA RULE 21

### SunSpec Common Smart Inverter Profile Test Procedure For CA Rule 21 Approved

**August 2, 2019, San Jose, California** The SunSpec Alliance is pleased to announce that the SunSpec Common Smart Inverter Profile (CSIP) Conformance Test Procedures, APPROVED and made available for free download on May 22, 2018, have been updated to improve clarity and eliminate certain procedures that were determined to be not applicable. This means that manufacturers, system integrators, and implementors can verify products for compliance to California Rule 21 phase 2 (communication) and phase 3 (control) requirements.

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## New SunSpec Information Model Specifications Available For Review

*Technology Upgrade Fully Supports IEEE 1547-2018 Requirement for SunSpec Modbus and Introduces JSON Message Encoding*

The SunSpec Alliance today announced a major enhancement to its SunSpec Information Models communication technology for Distributed Energy Resources (DERs). Two new DRAFT specifications, SunSpec Device Information Models Specification and SunSpec DER Information Model Specification, are now available for review and comment. These specifications fulfill IEEE 1547-2018 requirements for a standard communication interface and introduces a simplified method for DER manufacturers to provide both SunSpec Modbus and JSON-based RESTful web services interfaces on their products.

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# CYBERSECURITY

## SunSpec/Sandia Cybersecurity Workgroup Program Update

The SunSpec/Sandia Cybersecurity Workgroup, now 350 people strong, has been meeting once or twice per month now for the past two years. During this time, we've been executing to a roadmap that addresses several key themes:

- DER Device and Servers
- Secure Network Architecture
- Data-In-Flight Requirements
- Access Controls
- Patching Requirements
- Utility/Aggregator Auditing Procedures



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## Test PKI Certificate Packages Now Available



The SunSpec Certified PKI program test certification program is being utilized by a variety of companies as they prepare for CA Rule 21 IEEE 2030.5/CSIP certification. There is no fee for the test certs.

[Link to submit for PKI Certificates.](#)

# ORANGE BUTTON



ORANGE BUTTON  
INITIATIVE

## Orange Button Taxonomy Update

The Orange Button workgroup has released a new version of the Solar Taxonomy, version 2019-07-31.

This new release is available here, on GitHub: <https://github.com/SunSpecOrangeButton/solar-taxonomy>

Full release notes are available under the 'releases' section.

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# PV HAZARD CONTROL RAPID SHUTDOWN

## SunSpec Specification Under Review: Communication Signal For Rapid Shutdown Specification

The SunSpec Communication Signal for Rapid Shutdown Specification is an open standard offered for free, [downloadable here](#).

### Amendment

In calendar year Q4 2018, a request was made to clarify and amend the standard to address applications of a "receiver" that are not embedded in a PV module. The SunSpec Communication Signal for Rapid Shutdown working group met several times to address the request, **amended sections 4.2 and 4.3** of the specification to conform with the requirements of UL 3741, and published a new **TEST version on June 25, 2019 available here**.

### Review Process

The SunSpec Communication Signal for Rapid Shutdown-2019 specification will remain in **TEST status until August 24, 2019**. During this time, we encourage the SunSpec community to review the specification and **provide any comments you may have in this comment form**. If you have any questions, please contact [membership@sunspec.org](mailto:membership@sunspec.org).

# EVENTS

It is that time of year again. During the week of September 23 to 26, the U.S. solar and energy storage industry is coming together for Solar Power International 2019. SunSpec Alliance will be there in force with a full agenda. [Click here to find out more](#).

# CURRICULUM

## Register Now for Fall Quarter!

Registration for the fall quarter course on **Secure Communication for Distributed Energy Resources** is now open. This fully online, nine-week course begins on September 24, 2019. Electrical, software, and grid engineers can use the knowledge gained in this course to augment their skills and design products that incorporate secure communication networking and deploy networks using these products. With the rollout of CA Rule 21 and IEEE 1547-2018, this knowledge becomes increasingly important for companies to succeed in California and across the U.S.

Email [membership@sunspec.org](mailto:membership@sunspec.org) for member and group discounts.

[More Information](#)

# CERTIFICATION NEWS

## SMA Achieves SunSpec Rapid Shutdown Certification

After thorough testing, SMA is pleased to announce that their residential and commercial PV solutions are now certified for rapid shutdown by the SunSpec Alliance. Both the Sunny Boy-US-41 and the CORE1-US-41 when paired with SMA's TS4-R-F devices are now SunSpec rapid shutdown certified.

[Learn more about SMA's residential solutions](#)

[Learn more about SMA's commercial solutions](#)



# MEMBER NEWS

Proud member of SunSpec? Download your member-only Proud Member of SunSpec



logo kit, including logos for various applications and our handy use guidelines.

[Download Proud Member of SunSpec logo kit | Zip file](#)

## What do Solar-Log®, power factor, and a frothy brew have in common?

Solar-Log® Provides Reactive Power and Feed-in Management

Solar-Log's grid Feed-in Management with reactive and active power control provides an innovative solution to largely minimize losses that result from feed-in caps proposed by grid operators or local regulations. Solar-Log® can throttle exported power from the PV array to meet the specified feed-in cap. In addition, Power factor control can benefit solar plant owners and operators by increasing load capacity and reducing power losses, improving voltage and deferring upgrades. Solar-Log® creates a flexible solution, allowing grid operators to control the active and reactive power based upon generation, load and self-consumption.

<https://blog.solar-log-america.com/2018/11/26/power-factor-control-balancing-active-and-reactive-power/>



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