

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking on the
Commission's Own Motion to Improve
Distribution Level Interconnection Rules and
Regulations for Certain Classes of Electric
Generators and Electric Storage Resources

Rulemaking 11-09-011
(Filed September 22, 2011)

Order Instituting Rulemaking to Consider
Streamlining Interconnection of Distributed
Energy Resources and Improvements to Rule 21.

Rulemaking 17-07-007
(Filed July 13, 2017)

**ENETRICS LLC'S RESPONSE IN SUPPORT OF THE PETITION OF THE
CALIFORNIA SOLAR & STORAGE ASSOCIATION TO MODIFY RESOLUTIONS E-
5000, E-5036, AND E-5357 TO ADOPT IEEE 2030.5.100 TEST PROCEDURES FOR
SMART INVERTERS**

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I. INTRODUCTION AND SUMMARY

Pursuant to Rule 16.4(f) of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), Enetrics LLC (Enetrics) submits this Response in support of the Petition for Modification (Petition) filed by the California Solar & Storage Association (CALSSA) on July 24, 2026. The Petition asks the Commission to modify Resolutions E-5000, E-5036, and E-5357 to adopt the IEEE 2030.5.100 conformance test procedures in place of the SunSpec CSIP Test Procedures, on a transition triggered by the publication of IEEE 2030.5.100.

Enetrics supports the Petition and urges the Commission to grant the requested relief. Enetrics files separately to supply two things the Petition does not, and cannot, supply on its own:

1. Evidence that the governance conditions the Commission attached to its assignment of the CSIP Test Procedures in Resolution E-5357 have not been met. The Commission did not simply assign the test procedures to the SunSpec Alliance (SunSpec); it recommended specific governance improvements as part of that assignment. Approximately eighteen months later, those recommendations remain unimplemented, and Enetrics has direct experience to the contrary.
2. Confirmation that granting the Petition creates no compliance gap. Because the Petition ties the transition to a date computed from the publication of IEEE 2030.5.100 rather than to a fixed calendar date, the existing pathway remains available in the interim. No product now in certification or in an interconnection queue is affected. That structure also insulates

the Commission from further schedule movement in the IEEE projects, which matters because one such movement has already occurred.

II. INTEREST OF ENETRICS AND COMPLIANCE WITH RULE 1.4(b)

Enetrics LLC is a Georgia limited liability company that develops conformance test software for distributed energy resource (DER) communications standards, including IEEE 2030.5 and CSIP. Enetrics files this Response on its own behalf and on behalf of no other person or entity.

Enetrics discloses that it has a commercial interest in the subject matter of the Resolutions. It supplies conformance test tooling used by equipment manufacturers and testing laboratories, and it competes with other suppliers of such tooling. Enetrics states that interest plainly so that the Commission may weigh this Response with it in view.

Enetrics also participates directly in the development of the standards at issue. Enetrics personnel serve as Chair of IEEE P2030.5, Vice Chair of IEEE P2030.5.1, and Chair of IEEE P2030.5.2 – respectively, the working groups responsible for IEEE 2030.5 itself, for the successor to CSIP, and for the DER Direct profile. One Enetrics employee formerly served as Principal Engineer of the SunSpec Alliance; another received a SunSpec Alliance award for contributions to open standards in the DER industry. Enetrics accordingly has current, firsthand knowledge of both the technical substance of the transition the Petition proposes and the process questions it raises.

The factual and legal contentions Enetrics intends to present are set out in Sections III through VI below. Each is directed to issues already presented by the Petition.

III. THE GOVERNANCE CONDITIONS SET IN RESOLUTION E-5357 HAVE NOT BEEN MET

Resolution E-5357 recognized that SunSpec is not an accredited standards development organization (SDO) and paired the assignment of the CSIP Test Procedures with recommendations intended to mitigate that fact. The Commission recommended that SunSpec develop an option for interested stakeholders to participate without becoming paid members, that it provide a public meeting or webinar on the policies governing working group participation, and that it openly publish a guide to its working group operating procedures, including rules for membership, review, and balloting.¹ The Petition as filed preserves each of those recommendations, and Enetrics supports that choice: they remain necessary during the interim period in which SunSpec retains near-term maintenance of the CSIP Test Procedures.

Those recommendations were the Commission's answer to the openness concerns raised in that proceeding. Enetrics' experience in the period since indicates that they have not been implemented.

¹ Resolution E-5357 (Dec. 27, 2024) at 20–21 and Findings/Conclusions 25–27 (recommending that SunSpec provide an option for participation without paid membership, hold a public meeting or webinar on participation policies, and publish a guide to its working group operating procedures).

That is the material development most relevant to the Petition: the lighter remedy the Commission adopted in 2024 has not produced the openness it was designed to produce.

A. Participation still requires paid membership, granted at SunSpec's discretion, with no appeal.

The published participation requirements for the relevant SunSpec work group continue to state that Contributing Member status is required in order to participate.² The Petition notes that SunSpec waives dues for nonprofits, researchers, and educators. Enetrics does not dispute that, and states it here so that the record is accurate. The carve-out does not reach commercial participants such as Enetrics, and it does not reach the application requirement at all: every applicant, dues-paying or not, must be approved through a process whose criteria are not published. After the Commission approved the Resolutions addressing CSIP and the SunSpec CSIP Test Procedures, SunSpec representatives stated in the Smart Inverter Working Group (SIWG) that membership would be required for participation. SunSpec restated that requirement as recently as June 18, 2026, as the Petition records.

Enetrics applied for membership in the SunSpec Alliance in July 2025, primarily to participate in the development of the CSIP Test Procedures and to contribute issues found within the CSIP Test Procedures. The application was denied. Among the reasons given was Enetrics' earlier protest letter to this Commission concerning these same Resolutions. Enetrics was further informed by the SunSpec Alliance that SunSpec has no appeals process and that they are entitled to limit membership at their own discretion.

Enetrics does not ask the Commission to adjudicate that denial, and nothing in this Response depends on whether the denial was correct. Enetrics offers it because of what it demonstrates structurally: membership is a precondition to participation; the criteria governing membership decisions are not published; and no mechanism exists by which an applicant may seek review of a decision or raise a concern about the impartiality of the decision-maker. A body so constituted does not exhibit the attributes of openness, balance of interest, due process, and an appeals process on which the Commission and other regulators rely when they incorporate a standard by reference.

B. The exclusion extends to publicly announced informational sessions.

Enetrics personnel have been prevented from attending SunSpec webinars announced as open to the public, including sessions concerning the SunSpec CSIP Test Procedures. The practical consequence is that Enetrics is unable to follow the development of the very procedures the Commission's Resolutions presently require it to conform to. That is the opposite of the outcome the Commission sought in Resolution E-5357 when it recommended a public session on participation policies.

² SunSpec IEEE 2030.5 Conformance Profiles Work Group, "Participation" (stating that Contributing Member status is required to participate). See Petition at n.9.

C. The intellectual property framework reaches only members.

SunSpec's intellectual property rights policy and its reasonable-and-non-discriminatory licensing commitments apply to members of the SunSpec Alliance.³ A Commission requirement to use SunSpec-developed test procedures therefore places non-members – including parties that have sought and been refused membership – in the position of complying with a regulatory obligation without the licensing assurances available to members. Under the Petition, that condition persists through the interim period, which on current expectations runs until approximately December 2029. This concern is not hypothetical: in IEEE meetings in March 2026, as well as further correspondence, and in UL meetings held in March 2026 (both captured in meeting minutes), SunSpec representatives asserted intellectual property claims.

D. Non-SDO provenance creates adoption barriers beyond California.

Many national and international regulatory frameworks require, or strongly prefer, standards produced by accredited SDOs. That preference is reflected in OMB Circular A-119, which defines a voluntary consensus standards body by attributes including openness, balance of interest, due process, and an appeals process.⁴ Comparable criteria appear in the ANSI Essential Requirements and in the principles for international standards development adopted by the World Trade Organization Committee on Technical Barriers to Trade.⁵ IEEE satisfies these criteria. SunSpec, as Resolution E-5357 itself acknowledged, does not.

Because California's CSIP work is increasingly referenced outside California, the provenance of the associated test procedures has practical consequences for manufacturers selling into multiple jurisdictions.

IV. THE PETITION IS TIMELY

Enetrics supports CALSSA's showing under Rule 16.4(d) and can address it from direct knowledge. At the time Resolutions E-5000, E-5036, and E-5357 issued, no IEEE project existed to standardize conformance test procedures for IEEE 2030.5 or its profiles. The Project Authorization Request for IEEE P2030.5.1 was approved on February 13, 2025, and the Project Authorization Request for IEEE P2030.5.100 was approved on December 10, 2025 – in each case after Resolution E-5357 issued, and more than five years after Resolutions E-5000 and E-5036

³ SunSpec Alliance Membership Agreement, <https://sunspec.org/sunspec-alliance-membership-agreement/>.

⁴ Office of Mgmt. & Budget, Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" (rev. Jan. 27, 2016). Circular A-119 governs federal agencies and is cited here as persuasive authority on the attributes of a voluntary consensus standards body, not as controlling law before this Commission.

⁵ See ANSI Essential Requirements: Due process requirements for American National Standards; WTO Committee on Technical Barriers to Trade, Decision on Principles for the Development of International Standards, Guides and Recommendations.

issued⁶. The relief CALSSA seeks was therefore unavailable at any earlier point. The Petition responds to a change in circumstances rather than raising a delayed objection to a determination that could have been contested when made.

Enetrics addresses one point directly, because it is the most likely ground for a procedural objection. Approval of the IEEE P2030.5.100 Project Authorization Request preceded the first anniversary of Resolution E-5357 by seventeen days. Enetrics submits that this does not render the Petition untimely, for two independent reasons. First, approval of a Project Authorization Request establishes only that a project has been authorized and it takes some time after that approval for the approval to be communicated and for the working group to be established. Those facts developed over the months that followed, and they are what make the relief sought here assessable. Second, the modifications sought to Resolutions E-5000 and E-5036 could not have been presented within one year of those Resolutions under any circumstances, since the IEEE projects post-date them by more than half a decade. A seventeen-day margin on one of the three Resolutions is not a sound basis on which to decline to consider relief that is otherwise squarely justified by changed circumstances.

V. GRANTING THE PETITION WILL NOT DELAY OR DISRUPT COMPLIANCE

The Petition proposes that migration to IEEE 2030.5.100 occur eighteen months after IEEE 2030.5.100 is published, and that conformance to IEEE 2030.5.1 become mandatory on the same date. Until that date, the SunSpec CSIP Test Procedures would remain the operative pathway, SunSpec would retain near-term maintenance of them, and the SunSpec Authorized Testing Laboratory pathway would remain available. No equipment currently in certification, and no product in an interconnection queue, would be affected by granting the Petition. The relief is prospective and coordinated by design.

Enetrics offers the following status information on IEEE P2030.5.100 so that the Commission may assess schedule risk on the record rather than on assurance:

- The Project Authorization Request for IEEE P2030.5.100 was approved on December 10, 2025. Its scope covers conformance test procedures for IEEE Std 2030.5 and its associated profiles, including IEEE P2030.5.1 (CSIP) and IEEE P2030.5.2 (DER Direct).⁷ The working group and ad hoc group are constituted and meeting every other week, with roughly 15 participants from 12 organizations across 3 countries.
- The Project Authorization Request for IEEE P2030.5.1 was approved on February 13, 2025.

⁶ Declaration of Dara Yung Pursuant to Rule 16.4(b), attached to the Petition (July 24, 2026), ¶¶ 1–4.

⁷ IEEE P2030.5.100, Standard Conformance Test Procedures for IEEE Std 2030.5, <https://standards.ieee.org/ieee/2030.5.100/12340/>. See also Petition at n.8.

- IEEE P2030.5.100 is currently expected to be approved by the IEEE Standards Review Committee for publication in June 2028. On the Petition’s proposed trigger, the transition would take effect in approximately December 2029.⁸

Enetrics notes candidly that the expected approval date, June 2026, for IEEE 2030.5.1 has already passed. That fact does not argue against the Petition. It argues for the structure the Petition adopts. The proposed trigger is relative – eighteen months after publication – rather than a fixed calendar date. If the P2030.5.100 publication moves, the transition date moves with it automatically, the existing compliance pathway remains in force in the interim, and no further Commission action is required. A fixed-date trigger would place the schedule risk on manufacturers and on the Commission; a publication-relative trigger does not.

Nor is the length of the horizon a reason to defer the decision. Manufacturers, testing laboratories, and utilities commit to tooling and process improvements well in advance of a compliance deadline, and they commit against the pathway the Commission has designated. Deciding now which conformance framework will ultimately apply, and on what trigger, is what allows those commitments to be made once rather than twice. Deferring the question until publication approaches would compress the transition into the period when it is least manageable and would produce precisely the duplicated effort the Petition is designed to avoid.

Consolidating the profile and its conformance test procedures within a single organization also removes a coordination cost that exists today. At present the implementation guide and the procedures used to test conformance to it are maintained by two organizations with different processes, different participation rules, and different schedules. Every change to one requires a corresponding change in the other, negotiated across an organizational boundary. There is currently no liaison agreement in place between IEEE and SunSpec. Placing both within IEEE eliminates that dependency and reduces, rather than increases, the risk of schedule slip.

VI. REQUESTED RELIEF

Enetrics respectfully requests that the Commission:

- (1) Grant the Petition for Modification; and
- (2) Adopt the modifications to Resolutions E-5000, E-5036, and E-5357 set out in the Appendix to the Petition.

VII. CONCLUSION

The Commission has consistently recognized the value of nationally recognized standards, test procedures, and certifications, and its intention to rely on them wherever possible.⁹ When Resolution E-5357 issued, no accredited SDO had undertaken conformance test procedures for

⁸ Declaration of Dara Yung, ¶¶ 3–4. See also Petition at n.11 (IEEE 2030.5.100 PAR details).

⁹ Resolution E-5000 at 31.

IEEE 2030.5, and the Commission reasonably worked with what existed. That is no longer the case. Moving the test procedures into the same accredited organization that maintains the underlying standard is the logical completion of the transition the Commission began, and it removes the openness, participation, and intellectual property concerns that the Commission attempted to address by recommendation in 2024 and that remain unaddressed today.

California's work on standardized DER communications has shaped practice well beyond California. Enetrics submits that granting the Petition will extend that influence by placing the associated conformance testing on a foundation that other jurisdictions can adopt without qualification. The Petition asks the Commission to decide now what will apply later, on a trigger that adjusts itself if the underlying standards move. That is the right shape for this decision, and the interim arrangements it preserves give every affected party time to prepare. For the foregoing reasons, Enetrics respectfully requests that the Commission grant the Petition.

Respectfully submitted,

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