DOCKETED	
Docket Number:	24-FDAS-02
Project Title:	Load Flexibility Policy & Planning
TN #:	273635
Document Title:	Smart Electric Power Alliance (SEPA) Comments - SEPA Comments on Interopability
Description:	N/A
Filer:	System
Organization:	Smart Electric Power Alliance (SEPA)
Submitter Role:	Public
Submission Date:	11/13/2026 6:08:05 PM
Docketed Date:	11/16/2026

Comment Received From: Smart Electric Power Alliance (SEPA)
Submitted On: 11/13/2026
Docket Number: 24-FDAS-02

SEPA Comments on Interopability

Additional submitted attachment is included below.

Smart Electric Power Alliance (SEPA) Comments in Response to: Commissioner Workshop on Interoperability, Nov 4, 2026

CEC Docket No: 24-FDAS-02

General

The Smart Electric Power Alliance (SEPA) thanks the California Energy Commission (CEC) for the opportunity to provide comments following the November 4, 2026, Commissioner Workshop on Interoperability. SEPA, a 501(c)(3) organization with over 1,000 members, accelerates the transition to a clean, affordable, and resilient electricity system for all. SEPA engages with its diverse membership—which includes utilities, policymakers, regulators, and technology companies—through education, collaboration and convening, and the search for innovative policy, regulatory, and technology solutions. For more information, please visit www.sepapower.org.

SEPA's ongoing work in standards and interoperability—specifically relating to electric vehicle (EV) and distributed energy resource (DER) technologies—directly informs these comments.The Commission rightly notes that a coherent interoperability framework is urgently needed to mitigate the risk of disparate technological solutions creating silos among virtual power plants (VPPs), traditional demand-side management, and emerging DER applications. As California rapidly scales load flexibility and Demand Side Grid Support (DSGS), aligning these technologies is a key success factor.

Based on our extensive industry experience, SEPA emphasizes that adopting standards is a necessary first step toward interoperability, but it is only the beginning. Grid-serving load flexibility will be accelerated and enhanced through continued, iterative collaboration among all participants in California's energy ecosystem. A successful framework balances rapid innovation with grid reliability by pairing open standards with robust structural principles and ongoing industry collaboration, ensuring that grid flexibility is achieved without compromising safety, privacy, or resilience.

Foundations: Grid Architecture

Before the industry locks into specific communication protocols, it is essential to map the complex structural interactions between utilities, aggregators, original equipment manufacturers (OEMs), and customer energy management systems. Grid Architecture provides the necessary blueprint for this complex ecosystem.

Through our facilitation of industry working groups, SEPA has observed that friction among stakeholders often stems from a lack of shared architectural alignment. By employing a disciplined Grid Architecture approach, the CEC can ensure that foundational designs are flexible, inclusive, and robust. This methodology ensures that critical elements such as data

governance, consumer authorization, and cybersecurity are built into the foundation of the grid rather than bolted on as afterthoughts.

As millions of DERs come online, a structural approach limits unintended systemic risks and provides a clear pathway for integrating diverse technologies. Collaborative, multi-stakeholder working groups built on these architectural foundations have proven to reduce deployment barriers, align disparate market participants, and accelerate the transition from pilot programs to scalable solutions.

Navigating the Standards Landscape

Harmonizing protocols requires selecting the right tools for specific challenges. The current standards landscape—often referred to as a "protocol soup" encompassing OpenADR 3.1, Matter, IEEE 2030.5, ISO 15118, OCPI, and OCPP—can be challenging for stakeholders to navigate.

To address this, the SEPA Catalog of Standards (https://sepapower.org/knowledge/catalog-of-standards/) was developed to help the industry identify and apply the most appropriate standards for their specific operational needs that also adhere to core interoperability, grid architecture, and cybersecurity principles. When standards are initially developed, they can be intentionally broad to accommodate a wide variety of use cases and technologies. While this breadth is necessary for industry-wide adoption, it can create ambiguity during implementation.

Properly applied open standards ensure that a customer's devices can dynamically support the grid regardless of the manufacturer, all while maintaining strict safety baselines. More specifically for EVs, navigating this ecosystem successfully requires bridging the gap between high-level standards (like ISO 15118 at the vehicle level and IEEE 2030.5 or OpenADR at the grid level) and functional, real-world deployment. Industry continues to move forward while standards remain in the development phase, creating a need for retrospective and ongoing adoption needs. In particular, EV OEMs and managed charging software providers are increasingly creating bespoke data and communication integrations between their respective cloud platforms. While this solution is enabling scaled managed charging programs today and into the future, data standardization could streamline and support further program buildout. As standards are developed, working with OEMs and software providers will be critical to ensuring these standards are complementary and supportive of existing and developing practices.

Implementation: Testing, Certification, Pilots, and Beyond

Adopting a standard does not automatically guarantee interoperability or cybersecurity out of the box; uniform testing and certification are needed to achieve these desired outcomes.

Certified devices and validated communication protocols are critical for reducing the friction and cost associated with VPP rollouts. They ensure that when an aggregator or utility sends a load flexibility signal, edge devices respond predictably and securely.

Furthermore, moving from a broad standard to a functional deployment is best completed with the use of Interoperability Application Profiles. Interoperability Application Profiles break down intentionally broad standards into directly digestible, approachable chunks. California has implemented similar measures before with the development of the Common Smart Inverter Profile (CSIP), which has now begun the process to become an IEEE standard. By acting as a "pick-and-choose" mechanism, Interoperability Application Profiles narrow down the standard's components to fit a highly specific use case—such as EV fleet managed charging.

Developing profiles for winning use cases allows the industry to bypass the ambiguity of broad standards. By utilizing tools similar to SEPA's Interoperability Application Profiles (included in the Appendix below), the CEC can guide stakeholders on exactly *how* a standard applies to California's specific VPP and DSGS needs, drastically reducing deployment friction and ensuring true plug-and-play capability.

Conclusions

SEPA thanks the Commission for this opportunity to provide comment. Through partnerships and collaboration with government, utility, and industry stakeholders, SEPA has developed robust resources to make the implementation of standards and interoperability a reality for diverse energy resources. As shown in SEPA' examples of Interoperability Application Profiles, the Commission can target the most critical use cases today while preserving the flexibility required for the technological advancements of tomorrow.

The adoption of standards is the crucial first step because these standards apply generally across the global market. The CEC and associated agencies will need to fine-tune them to the unique regulatory, resilience, and technological circumstances of the California energy market. By coupling architectural discipline with open standards and rigorous certification, California can pave the way for a flexible, resilient, and secure grid.

SEPA is available to provide the Commission with additional information based on our ongoing work. Please contact Aaron Smallwood at asmallwood@sepapower.org with any questions.

Appendix: SEPA Resources

The following SEPA resources are available to support the Commission and industry stakeholders in developing and implementing a cohesive interoperability framework:

- **Application Guide: SEPA Interoperability Profile for Electric Vehicle Fleet Managed Charging Utilizing IEEE 2030.5-2018**
- **Interoperability Profile for Electric Vehicle Fleet Managed Charging**
- **Distributed Energy Resources Interoperability Profile Template**
- **SEPA Catalog of Standards**
- **SEPA Catalog of Test Programs**
- **SEPA Interoperability Process Reference Manual - User Guide**
- **SEPA Research: The Role of Automakers in Scaling Managed Charging Programs: A Review of Automaker-Authorized Integrations**