



CharIN Interface Initiative North America (CharIN)
1300 I (Eye) St. NW Suite 400 E, Washington DC, 20005

October 6, 2023

RE: Request for Information (RFI) – North American Charging Standard (NACS) -SAE J3400 Market Readiness and Standardization

Dear NASEO, AASHTO, and members,

On behalf of the members of Charging Interface Initiative (CharIN) North America, we want to provide our input on J3400 Market Readiness and Standardization. Thank you for the opportunity to offer answers to three select questions of the RFI.

1. Name, contact information, company, or organization that you represent.

Erika Myers, Executive Director, CharIN Interface Initiative North America (CharIN)

3. What role does your company play in the EV market? What is your company's business model?

CharIN is the largest global association focused on the electrification of all forms of transportation based on the seamless and interoperable charging experience enabled by the Combined Charging System (CCS) and the Megawatt Charging System (MCS). CCS and MCS are the global standards for charging vehicles of all kinds, and we acknowledge the increasing role the North American Charging Standard (NACS) plays in electrification in North America. An inclusive, industrywide coalition, CharIN represents nearly 300 leading e-mobility stakeholders, from EVSPs and automakers to utilities, grid operators, component suppliers, and charging station developers. Nearly 75 of these members are based in the United States. A complete list of members may be found on our website at www.charin.global.

22. What role does your company play in the J3400 standardization?

The RFI poses a number of critical questions of EVSE providers as you consider the future of charging infrastructure investments in your states under the NEVI program. In addition to the important questions of hardware deployment costs, technical specifications, and standardization, we appreciate your attention to the important topic of interoperability - ensuring EV charging systems from various manufacturers

and networks seamlessly communicate and function together. Interoperability yields critical customer experience benefits and is a prerequisite to charging being accessible and simple for all.

CharIN supports ongoing standardization of NACS

An open standardization process is crucial because it ensures a thorough peer review of the technology and allows contributions from interested stakeholders. SAE took the initiative to expedite, certify, and standardize NACS independently, aiming to complete this process by the end of this year, and designating it as J3400.

While we are champions of the Combined Charging Standard (CCS), we acknowledge Tesla and its NACS charging connector system have played an important role in accelerating EV adoption in North America. NACS has not yet undergone formal review and standardization by an established organization like SAE International. However, in July 2023, SAE announced plans to expedite the standardization process for NACS, intending to release it as SAE J3400. These standards will include crucial guidelines for equipment, charging station connections, charging rates, reliability, and cybersecurity measures.

Interoperability is needed in addition to standardization

Standardization without interoperability will not yield a positive consumer experience for drivers. A competitive marketplace with many participants in different segments of the ecosystem requires collaboration between companies, and CharIN is the central organization for such industry collaboration. As J3400 is expanded from a proprietary technology to an open standard used by many companies, establishing interoperability will be an extensive and ongoing process.

Recognizing the momentum behind J3400, CharIN established the member-based CharIN North America Charging Interoperability (NACI) Task to guarantee seamless compatibility and interoperability of NACS by establishing industry-standard, system-level charging specifications and definitions, such as ensuring interoperability in line with ISO 15118/DIN 70121 standards, developing implementation guidelines and promoting best practices, and establishing certification processes for interoperable products.

CharIN achieves interoperability among members not only through technical discussions and focus groups but also by hosting Testival events where participants are able to test their products against others in real time to implement, support, and test interoperability. Because J3400 is not yet an open standard and has limited suppliers in the current market, it has not been subject to interoperability testing and the resulting troubleshooting. Significant challenges may be identified upon real world testing.

NACS and CCS will most certainly coexist in the coming years. As long as they do, CharIN will do everything in its power to ensure both coexist at the same level of reliability and provide similar customer experiences. Collaboration—not competition—will help improve user experience and reliability, as well as safety – all while reducing market complexity, eliminating consumer confusion, and accelerating EV adoption.

As governments invest resources in charging infrastructure, we urge you to consider the interoperability funded projects. CharIN stands ready to collaborate with NASEO, AASHTO, and your members to advance the cause of interoperability and in the EV charging ecosystem. We appreciate your consideration as you develop requests for proposals under the NEVI program.

Sincerely,

A handwritten signature in black ink, appearing to read "Erika Myers". The signature is fluid and cursive, with a long horizontal stroke at the end.

Erika Myers
Executive Director, CharIN North America

CharIN authorizes NASEO to publish and distribute this response to the NASEO-AASHTO RFI on its website and through other means to the states and general public. We have included no confidential or proprietary information in our response.