National Electrical Manufacturers Association

The Association of Electrical Equipment and Medical Imaging Manufacturers
www.nema.org

November 27, 2018

Mr. James Kwon
U.S. Environmental Protection Agency
ENERGY STAR Program
1200 Pennsylvania Avenue NW
Washington, DC 20460

RE: NEMA Comments on ENERGY STAR Specification for Electric Vehicle Supply Equipment Version 1.1

Dear Mr. Kwon,

The purpose of this letter is to present the perspective of electrical equipment manufacturers on the proposed ENERGY STAR specification for electric vehicle supply equipment, EVSE 1.1.

NEMA represents nearly 350 electrical equipment and medical imaging manufacturers that make safe, reliable, and efficient products and systems. Our combined industries account for 360,000 American jobs in more than 7,000 facilities covering every state. Our industry produces $106 billion shipments of electrical equipment and medical imaging technologies per year with $36 billion exports. These comments are submitted on behalf of NEMA members that manufacture electric vehicle supply equipment.[1]

NEMA and EVSE manufacturers convey a unified position that the timeline for developing EVSE 1.1 be extended to account for the complex nature of DC fast charging equipment and the extent of stakeholder participation necessary to achieve an optimal outcome. We also urge EPA to allow manufacturers to self-test and self-certify within EVSE 1.1.

Request for Timeline Extension

The complexity, diverse use-cases, and rapidly evolving technology of DC fast charging means that developing an effective specification will take much longer than the current timeline. **Lengthening the timeline will allow for important stakeholder involvement and dialogue to improve the likelihood that EVSE 1.1 will not artificially favor one technology over another, or exclude future technological innovations from entering the market.**[2]

Importantly, because the industry is changing so quickly, most EVSE suppliers, customers, and stakeholders have limited resources to focus on an additional certification like ENERGY STAR. NEMA urges EPA to recognize and account for these factors by extending the timeline as currently proposed on slide 25 of the "Second Working Session Slide Deck."[3]

[1] Members of NEMA include: ABB, ChargePoint, ClipperCreek, General Cable, Leviton, Siemens, Southwire, TE Connectivity, Tesla, and Toshiba

[2] EPA should seek input from a wide range of stakeholders, including, but not limited to: EVSE manufacturers and network operators, automakers, medium- and heavy-duty electric truck and bus manufacturers, fleet operators, municipal and state governments and transit agencies, electric utilities, and others.

[3] https://www.energystar.gov/sites/default/files/Second%20Working%20Session%20Slide%20Deck.pdf

As we have stated in previous comments, DC fast charging systems are customized to suit the demands of their local and specific applications.[4] For example, charging infrastructure for a transit bus depot would be designed, engineered, and operated very differently from a standalone charger at a travel plaza. **Additionally, the DC fast charging sector is still emerging and new products are entering the market apace and operational experience with many DC fast charging technologies, particularly those rated at 150kW and above, is very limited**. For example, some manufacturers are developing overhead pantograph EV chargers rated at 600kW for transit buses; some medium-duty EV fleet operators are considering depot charging systems with dozens of charging ports rated at 1MW or more that incorporate on-site energy storage; and cooling technologies to handle heat dissipation of 350kW high-power chargers for light-duty vehicles are still in their early stages. **Some of these technologies, like 350kW high-power chargers, have only been deployed in small numbers in 2018, and megawatt-level charging has yet to be deployed. As such, the range of DC charging operational characteristics are not well understood.**

Charger design is evolving rapidly, and in that context, development of best energy efficiency assessments or standards should be done carefully and deliberately to avoid creating unintended technical constraints and market impacts.

NEMA recommends a more deliberative and inclusive process with an extended timeline and demonstrated inclusion of multiple EV charging network owners and operators, auto- and heavy-duty EV manufacturers, and EVSE suppliers.

Funding Exclusion Risks

While ENERGY STAR is a voluntary program, many EV infrastructure funding programs or independent customers specify ENERGY STAR as a requirement for purchase orders, potentially limiting the ability of new, innovative, and energy-efficient products from going to market. In this early era of charging technology development and lack of public charging availability, all parties should be granted equal funding opportunities for all available programs. ENERGY STAR certification at this early stage would have the effect of picking winners during a time when all operators should be taking technological development risks to reduce costs and increase utilization of their networks.

Testing and Certification

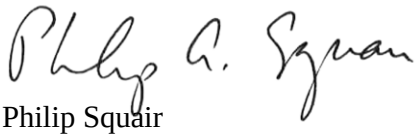
DC fast charging systems are custom-engineered and are often large, complex systems that would not be feasible to test in a third-party laboratory. The additional time, costs, and logistical burdens associated with testing for a rapidly evolving technology with multiple configuration types would potentially result in a certain subset of products being held back from market while undergoing certification. Therefore, NEMA requests that manufacturers with qualified in-house testing facilities be allowed to self-test and -certify their products in order to minimize disruption to product development.

In conclusion, the development timeline of EVSE 1.1 should be driven by technical considerations and informed discussion with the impacted stakeholders. Therefore, NEMA strongly urges that the timeline of EVSE 1.1 accommodate full participation from industry stakeholders and allow diverse industry perspectives to inform the development of an appropriate and effective scope.

[4] https://www.energystar.gov/sites/default/files/NEMA%20Comments_8.pdf

If you have any questions on these comments, please contact Patrick Hughes, Senior Director of Government Relations and Strategic Initiatives, at 703-841-3205 or patrick.hughes@nema.org.

Respectfully,



Philip Squair
Vice President, Government Relations