



September 26, 2019

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

RE: Comments on ENERGY STAR EVSE Version 1.1 Final Draft Test Method

Dear Mr. Kwon,

On behalf of Electrify America, LLC, I appreciate the opportunity to provide comments and feedback on the ENERGY STAR EVSE Version 1.1 Final Draft Test Method. Electrify America is a wholly-owned subsidiary of Volkswagen Group of America, headquartered in Reston, Virginia. We are investing \$2 billion over 10 years in Zero Emission Vehicle infrastructure, education and access, with the goal of building a nationwide system of electric vehicle chargers to meet the needs of future U.S. drivers. We have installed over 1,200 DC fast chargers so far, already the largest such network in the country.

In 2017, Electrify America commissioned the design and production of ultra-fast, DC electric vehicle supply equipment (EVSE). Equipment of this type had not been previously deployed in North America, so we worked closely with our vendors – ABB, Efacec, Signet, and BTC Power – to develop equipment that met all applicable Underwriter Laboratories (UL) standards. Last year, Popular Science magazine named our electric vehicle charging system an award winner for its "Best of What's New" in the Automotive category.

Regarding the Environmental Protection Agency's effort to develop Energy Star specifications for EVSE generally, we have consulted closely with our vendors and are concerned about the challenges they will face if efficiency specifications are applied to equipment that is rapidly changing. With those concerns in mind we recommend that:

- *The scope of the specifications be limited to DC Fast Charge (DCFC) systems rated 50kW or less.* Systems with a higher rating are still relatively new to the market and rely on technologies and architectures that are still evolving. It is premature to create efficiency specifications for systems rated greater than 50kW and doing so could inhibit experimentation and innovation in what remains a nascent technology.
- *Extend and expand the process for developing the specification, including the timeline for developing the specification, the stakeholders involved, and the number and locations of meetings.* Installed DCFC systems feature significant variations, from transformers, to power cabinets, to dispensers, to cabling, to cooling systems, to power protection systems, to layout, to footprint, to grid connection. Each installation may require the deployment of a different mix of technologies, many of which are still being refined and perfected. The integration of on-site energy storage creates another layer of variables that can directly impact efficiency. Development of an agreed-upon



specification for efficiency will require extensive stakeholder involvement and sufficient time to for the bedrock technologies to mature.

- *Allow for self-certification and testing.* DCFC systems are complex and require real-time prototyping in real-world applications. Many DCFC systems, particularly higher power systems, are not operational or testable until they are installed and commissioned in the field. This makes third-party laboratory testing difficult, if not impractical. Accordingly, the Agency should allow manufacturers to self-certify products per ENERGY STAR specifications, or to identify similar methods to certify and minimize cost and times required for testing.

Finally, however, the Agency decides to proceed, we urge it to harmonize its methodology, testing, benchmarks, and other standards with the National Institute of Standards and Technology Handbook 44 - Section 3.40 revisions related to Electric Vehicle Fueling Systems. The development of two parallel standards will only increase cost and confusion.

We appreciate this opportunity to provide our comments and will continue to closely monitor this process. If you have any questions or requests related to our comments, please contact Electrify America's Manager of Federal Affairs, Steve Koerner, at steven.koerner@electrifyamerica.com.

Sincerely,

Cliff Fietzek
Director of Technology