SURFACE VEHICLE INFORMATION REPORT

J2931™/6 AUG2022

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Superseding J2931/6 AUG2017

(R) Signaling Communication for Wirelessly Charged Electric Vehicles

RATIONALE

The MAC/PHY for communication needs to be defined. Rather than have duplication of effort, this document will refer directly to ISO 15118-8.

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1. SCOPE

This SAE Information Report J2931/6 establishes the requirements for physical and data link layer communications between Plug-in Electric Vehicles (PEV) and the Electric Vehicle Supply Equipment (EVSE).

1.1 Purpose

The purpose of SAE J2931/6 is to complement SAE J2954 and SAE J2847/6 as it describes the physical layer communication between the EVSE and the PEV. The use cases for communications between a PEV and the utility are described in SAE J2836/6 with the message details included in SAE J2847/6. This document is intended to describe the issues with PEV association, interoperability with various PEVs and EVSE suppliers, utilities, etc., as multiple manufacturers introduce their products. Several scenarios are encountered as the customers determine their home application to PEV energy needs that also includes the Home Area Network (HAN) that interfaces with home appliances and the utility. Some customers will interface with the utility using multifamily dwellings, street parking, energy transfer at work, and businesses, and these all have their variations on how the PEV communicates.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J2836/6 Use Cases for Wireless Charging Communication for Plug-in Electric Vehicles

SAE J2847/6 Communication for Wireless Power Transfer Between Light-Duty Plug-in Electric Vehicles and Wireless EV Charging Stations

2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J2836/1 Use Cases for Communication Between Plug-in Vehicles and the Utility Grid

SAE J2847/2 Communication Between Plug-In Vehicles and Off-Board DC Chargers

2.3 Other Publications

ISO 15118-1 Road vehicles - Vehicle to grid communication interface - Part 1: General information and use-case definition

ISO 15118-8 Road vehicles - Vehicle to grid communication interface - Part 8: Physical layer and data link layer requirements for wireless communication

IEC 61980-1 Electric vehicle wireless power transfer (WPT) systems - Part 1: General requirements