

**DOCKETED**

<b>Docket Number:</b>	17-EVI-01
<b>Project Title:</b>	Block Grant for Electric Vehicle Charger Incentive Projects
<b>TN #:</b>	231197
<b>Document Title:</b>	Yasuo MATSUNAGA Comments - Consolidated Comments from JARI
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Yasuo MATSUNAGA
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	12/13/2019 2:57:18 AM
<b>Docketed Date:</b>	12/13/2019

*Comment Received From: Yasuo MATSUNAGA*  
*Submitted On: 12/13/2019*  
*Docket Number: 17-EVI-01*

**Consolidated Comments from JARI**

*Additional submitted attachment is included below.*



December 13, 2019

California Energy Commission  
1516 9<sup>th</sup> Street  
Sacramento, CA 95815

Re: Staff Workshop on Future Equipment Requirements for CALeVIP

Japan Automobile Research Institute (JARI<sup>1</sup>) appreciates the opportunity to provide feedback on the Future Equipment Requirements for CALeVIP prepared and presented by the California Energy Commission (CEC) on November 18<sup>th</sup>, to which the leader of the Japanese mirror committee of IEC TC69<sup>2</sup> Joint Working Group 11<sup>3</sup> in JARI would like to comment.

JARI fully supports the Energy Commission's efforts to develop future equipment requirements for CALeVIP. We agree that the program plays an important role in accelerating the development of innovative technologies to improve the efficiency of charging infrastructure.

We have sought the industrial experts of international standardization in the Japanese mirror committee of IEC TC69 JWG 11 with the support of JISC, for their comments on the Future Equipment Requirements for CALeVIP presented at the workshop on November 18<sup>th</sup> (from Yasuo Matsunaga, Tetsu Yamada, Tatsuji Tanaka and Tetsuo Otani). We respectfully submit our consolidated comments, particularly regarding the New Proposal for 2021+ Projects (slide #21).

In the new proposal, ISO/IEC 15118 is solely listed as communication protocol between EVSE and EV for SAE J1772 conductive charging, AC Level 2 charging (6.2 kW+), and DC Level 1 & 2 charging (6.2 kW+). We strongly suggest that IEEE 2030.1.1 Annex A, which covers DC Level 1 & 2 charging (6.2 kW+) with proven track record<sup>4</sup>, be added to the diagram as another option for communication between EVSE and EV.

- IEEE 2030.1.1 Annex A is an established global technology which has already been deployed in a number of large-scale pilot projects and commercial products with bidirectional capabilities (e.g. Vehicle-to-Home and Vehicle-to-Grid units already in production in Japan, United Kingdom, etc.). It is a communication protocol that covers DC charging up to 200 kW<sup>5</sup>.

---

<sup>1</sup> Japan Automobile Research Institute (JARI) is a public-interest organization for automotive testing and research activities. As member of JISC of Japan Industrial Standards Committee (JISC), Japan's national standardization body, we are responsible for contribution in setting international standards in the electromobility sector, in collaboration with a broad spectrum of industries, such as the energy, electric machinery and information-telecommunication industries. We have been engaged in pioneering research projects and activities to promote next-generation vehicles.

<sup>2</sup> IEC TC 69: Electric road vehicles and electric industrial trucks

<sup>3</sup> JWG 11: Management of electric vehicles charging and discharging infrastructures

<sup>4</sup> More than 7000 DC chargers with output under Level 2 are manufactured and in operation globally not only in North America but also in Europe and Japan. Such chargers equipped with bidirectional power capabilities can discharge power from the vehicle to home and building, which make them effective solution for improving power resiliency.

<sup>5</sup> The new edition of IEEE 2030.1.1 Annex A will cover charging rate up to 400 kW.



- Excluding existing established technology from future equipment requirements would hinder competition and customer choice, which is stated as one of the pillars of the refined goals of the future equipment requirements proposed by the Energy Commission. Technology which has already been proven in the market should continue to be provided as an option for future equipment requirements.
- Additionally, while the scope of discussion is technical requirements for future charging infrastructure, it should be kept in mind that telematics is another established solution for communication between EVSE and EV.

Therefore, to reiterate, we strongly suggest that IEEE 2030.1.1 Annex A, which is a market-proven technology that covers DC charging, should be listed on slide #21 along with ISO/IEC 15118, as an option for communication protocol between EVSE and EV<sup>6</sup>. This would foster competition and customer choice, which is stated as one of the main principles of future equipment requirements.

We appreciate your consideration of our comments, and we look forward to continuing working with the Energy Commission staff and other agencies.

Sincerely,

Yasuo Matsunaga

Project Leader of IEC TC JWG 11 and WG9 in Japanese Mirror Committee  
Japan Automobile Research Institute (JARI)

This document is consolidated comments of the following experts:

Yasuo Matsunaga (NISSAN Motor CO., Ltd.)

Tetsu Yamada(JWG member)

Tatsuji Tanaka (JWG member)

Tetsuo Otani (JWG member)

---

<sup>6</sup> It may be simpler to alternate categorization of infrastructure shown on slide #21 and #23 from “SAE J1772 Conductive” and “Fast Charging” to “AC Charging” and “DC Charging”; in this case, we suggest that IEEE 2030.1.1 Annex A be listed along ISO/IEC 15118 for DC Charging as options for communication protocol between EVSE and the EV.