

DOCKETED

Docket Number:	19-AB-2127
Project Title:	Implementation of AB 2127 Electric Vehicle Charging Infrastructure Assessments
TN #:	240681
Document Title:	VW Panelist Presentation ISO 15118
Description:	N/A
Filer:	Spencer Kelley
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	11/22/2021 2:11:29 PM
Docketed Date:	11/22/2021

ISO 15118 from an OEMs Point of View

11/10/2021 | Michael Keller

Introduction ISO 15118 Advantages

*One standard = vehicle volume = EV adoption = interoperability = **sleek and seamless user experience***



Added customer value by ISO15118

- ✓ Plug and Charge for a simplified charge
- ✓ Data exchange secured and trusted and maintained
- ✓ Bi-directional energy exchange supported
- ✓ Future-proofed for next generation applications
- ✓ Supported by the CharIN community of manufacturers and CPO = Charge Point Operator

Details

CCS Charging System with competitive advantages using ISO15118 communication protocol

Charging System	Communication Protocol	DC	AC	TLS	PnC	SCF	WPT	BiDi	ACD
CCS 1 CCS 2 MCS (Global)	ISO 15118-20 Ed1 (Q1 2022)	✓	✓	✓	✓	✓	✓	✓	✓
	ISO 15118-2:2014 Ed. 1	✓	✓	✓	✓	✓	X	X	X
	DIN SPEC 70121:2014 Ed. 2	✓	X	X	X	X	X	X	X
CHAdeMO 3.0 (Japan)	Tbd (Chaoji-2, CAN 11bit*)	✓	X	X	X	✓	X	✓	X
CHAdeMO (Japan)	IEC 61851-23/24 (CAN 11bit*)	✓	X	X	X	X	X	✓	X
Chaoji (China)	Tbd (Chaoji -1, CAN 29bit*)	✓	X	X	X	✓	X	?	X
GB/T (China)	GB/T 27930 (CAN 29bit*)	✓	X	X	X	X	X	X	X

AC – Alternating current charging

ACD – Automatic connection device

BiDi – Bidirectional charging

DC – Direct current charging

*Limited bandwidth due to CAN bus based physical layer

PnC – Plug & Charge

SCF – Smart charging function

TLS – Transport Layer Security

WPT – Wireless Power Transfer



ISO 15118-20 adds additional features and charging methods

For the first time, implementation of ISO 15118-20 Ed. 1 will serve all use cases to enable seamless introduction of electric vehicles.



Volkswagen will roll-out the ISO 15118 implementation within all upcoming BEV models