

August 31, 2022

Ms. Rachel Assink  
Rulemaking Lead  
Washington State Department of Ecology  
300 Desmond Drive SE Lacey, WA 98503

RE: Clean Fuels Program Rulemaking – CR-102 Rule Proposal Phase

Submitted on-line at <https://aq.ecology.commentinput.com/?id=KTPeV>

Dear Ms. Assink,

The CHAdEMO Association appreciates this opportunity to comment to Department of Ecology for the chapter WAC 173-424 CR-102 phase of the Clean Fuel Program (CFP) rulemaking.

Comprised of over 500 members, the CHAdEMO Association including major automakers including General Motors, Honda, Isuzu, Jaguar Land Rover, Mazda, Mitsubishi Motors, Nissan, Subaru, Tesla, and Toyota, zero-emission trucks, and buses manufacturers, 50 charging station manufacturers (with over 260 certified charger models), construction, watercraft, aircraft and other off-road vehicle manufacturers and other industry and government leaders supporting transportation electrification.

CHAdEMO is both the name of the DC fast charging technology and the organization tasked to develop it. We are the pioneer of light duty vehicle fast charging and CHAdEMO is the most popular charging standard with almost 50,000 charge points in 98 countries. Most importantly, CHAdEMO is truly global public standard [published under IEC & EN (61851-23, 61851-24, 62196-3), and IEEE (2030.1.1)] and supports over 1 million EVs equipped with a CHAdEMO inlet and another 1 million compatible EVs (Tesla) utilizing CHAdEMO chargers with a simple adaptor. It is not a proprietary standard.

**CHAdEMO Association supports the provision requiring charging plazas to have CHAdEMO and CCS connectors to earn DCFC capacity credits.**

In WAC 173-424-560 (2) (a)(ii)(A) and (B), the draft CFP appropriately copies the requirements of the California LCFS program for CCS and CHAdEMO connectors. We anticipate objection from other parties as seen in recent comments to the Federal Highway

Administration (FHWA) regarding the \$5B National EV Infrastructure program. One of the main points of made to FWHA was that a best-of-both worlds solution exists – namely have a few chargers at a charging plaza that offer dual connectors on one charger – both CCS and CHAdeMO connectors known as a dual port. This debate should not be “either-or” but rather “and-both.” In fact, both ChargePoint and EVgo, two of the U.S.’s largest charge point operators (CPO) have publicly committed to supporting CHAdeMO chargers for the benefit of their customers.

Funding CHAdeMO chargers will not result in stranded assets. Nissan and Mitsubishi Motors are currently equipping vehicles CHAdeMO charging standard and will continue to be sold until at least 2025. Additionally, Tesla drivers utilize CHAdeMO chargers using the Tesla brand adaptor. Reviewing current statistics, Tesla and Nissan combined account for the majority of EVs in Washington. Further, as the average durability of vehicles is greater than 10 years, there will be a significant demand for CHAdeMO charging stations through 2035.

EVs, such as the Nissan LEAF, are becoming even more affordable as used EVs for low-income consumers. In addition, new Nissan LEAFs are one of the most affordable EVs and one of the few that will continue to receive the new federal EV tax credit for new EVs (as well as for used EVs) in the near-term. We predict this will result in continued robust sales for Nissan LEAFs in Washington and that charging plazas in Washington funded by the proposed CFP capacity credits will be well used by LEAFs and other EVs with CHAdeMO connectors for the life of the charger.

In summary, there is still a growing need to CHAdeMO charging stations.

Please note, contrary to popular belief, **it is not possible to adapt a CCS-1 charger to charge a CHAdeMO equipped vehicle.**

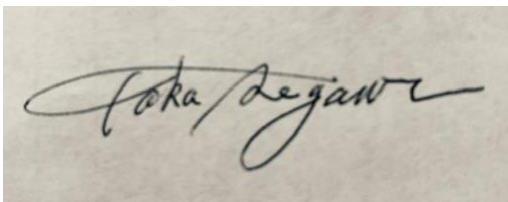
- The CCS-1 charging system utilizes Power Line Communication (PLC) to communication between the vehicle and EVSE.
- Originally designed for SAE J1772 Level 2 charging, CCS-1’s PLC is not capable of CANbus communication utilized by the CHAdeMO system.
- Though an adaptor can physically connect between CCS-1 and CHAdeMO, a CCS-1 cannot properly communicate with a CHAdeMO system and CHAdeMO system will not allow charging.
- Therefore, there is no safe and functional adaptor between CCS-1 and CHAdeMO.

The future is bright as EVs will support the electric grid. Since 2012, CHAdEMO has included the specification for bidirectional (V2G/VGI) power flow. Nearly all CHAdEMO equipped EVs are capable for bidirectional power flow without any modifications. CCS standard does not provide this functionality. Globally, EVs are beginning to help the electricity grid with bidirectional power flows especially where EVs dwell for longer times (e.g., destination centers, multi-unit dwellings, curbside charging, and other public charging). Once the benefits of V2G/VGI core technology are realized, CHAdEMO believes automakers will begin switch to CHAdEMO charging systems for North American market\*.

We appreciate the opportunity to shape the CFP rulemaking. We look forward to sharing our experience and expertise to create truly pragmatic, reliable, safe, and affordable EV charging experience responding to the users' various charging needs to facilitate widespread EV use.

Thank you for the opportunity to comment. If you have any questions, please contact David N. Patterson, P.E., Executive Director CHAdEMO NA, ([patterson@chademo.org](mailto:patterson@chademo.org)).

Sincerely,



Takafumi Anegawa  
President  
CHAdEMO Association

\* Nearly all automakers using CCS-1 in the North American market have a CHAdEMO designs for their Japanese market vehicles. Therefore, automakers can easily switch back to CHAdEMO.