January 12, 2022

RE: Rulemaking - Informal Comment Period for Chapter 173-424 WAC, Clean Fuels Program Rule

TO: State of Washington Department of Ecology

Dear Department of Ecology Staff:

EV.ENERGY CORP ("ev.energy") appreciates the opportunity to provide comments as the Department of Ecology ("the Department") develops a Clean Fuels Standard ("CFS") rule for the State of Washington.

Ev.energy is a leading software platform that manages residential electric vehicle ("EV") charging for utilities and grid operators, shaping electricity load out of periods of grid constraints and into periods of high renewable generation. With services in Washington and across all other 49 U.S. states, we provide a hardware-agnostic end-to-end solution to actively manage residential EV load through a suite of Application Programming Interface ("APIs") that connect to both vehicle telematic systems and networked Electric Vehicle Supply Equipment ("EVSEs"). Based on publicly-available market data, ev.energy's platform is compatible with approximately 80% of residential EV drivers nationally.

Ev.energy puts drivers in control of their EV charging with its award-winning mobile app, rewarding them for smart charging when using low carbon energy and/or time of use electric rates. Ev.energy's platform is capable of tailoring EV managed charging to multiple signals, including shifting to off-peak hours, alignment to local solar generation and distributed energy sources, and integration with utility distribution energy management systems.

Discussion:

We are encouraged that, based on the latest draft rule language, the Department is exploring how to incorporate credits from electric vehicle charging, including residential EV charging. We are extremely supportive of this inclusion, and urge the Department of Ecology to allow residential EV charging to generate credits, with the following specific design features:

1. Residential credits, including base credits, should be assigned to the entity of the driver's choosing.
2. Base credits should incorporate the carbon intensity ("CI") of the electricity mix at the time of charging.
3. Residential incremental credits should be generated for both metered and non-metered EVs.

4. 2023 should be the first year of credit generation for EVs.

We expand on these design features below and as a response to the November 16, 2021 draft Chapter 173-424 WAC language.

1. Residential credits, including base credits, should be assigned to the entity of the driver's choosing.

The current draft language proposed by the Department would allow only the electric utility or its designee to claim base credits for residential EV charging. Ev.energy acknowledges that the utility *can* play a role in enabling or promoting EV adoption and usage. However, third-parties are also capable of setting up programs and investing in customers and/or charging infrastructure to promote a transition from a gasoline-powered vehicle to an electric vehicle. The Department should develop rules that equitably incentivize credit generation by any entity, including utilities and third parties, and eschews a formal hierarchy. In such a market-based approach, it would be up to the customer (in this case, the owner of the electric vehicle) to determine which entity should receive the credit.

We recommend that the Department support several pathways that a driver can use to indicate its credit assignment, including a mobile app pathway. For example, a driver could register their electric vehicle through an app, which would confirm on the backend that the vehicle has not already been registered in the CFS through any other medium. Within the app, the driver could then select the recipient of the charging credits generated from a list of possible entities, including its electric utility and approved third-parties such as managed charging platforms or driver-owned fleet operators. For streamlining purposes, we suggest that this credit assignment capability be included with all apps that will actively manage charging and generate credits for the Washignton CFS program. We also suggest that the Department set a default recipient for the credits to account for cases where drivers decline to assign its credits.

The credit recipient can in turn further invest in programs or technologies that will increase EV adoption and encourage low-carbon charging. This structure will allow successful programs to thrive and promote healthy competition across all implementers.

2. Base credits should incorporate the carbon intensity ("CI") of the electricity mix at the time of charging.

As Washington seeks to lower its greenhouse gas emissions over time, it is critical that EV charging is incentivized to align with the carbon intensity of the electricity generation mix. The CFS should seek to incorporate programmatic mechanisms that encourage this alignment. One such method could be by allocating greater numbers of credits for EVs that engage in "smart

charging". "Smart charging" would be defined explicitly as programs that provide active carbon-optimized managed charging. These would be programs that a) allow implementers to fully control vehicle charging through telematics or networked EVSEs and b) intentionally charge vehicles in their portfolios when the CI of the generation mix is low. The CI should also incorporate any distributed generation, such as rooftop or community solar, that would functionally lower the CI of the electricity used to charge the vehicle.

An alternate method would be to allocate greater numbers of charging credits for charging that occurs during periods of low- or zero-CI electricity generation. Implementers could collect data from the vehicles or networked EVSEs and report the time periods when charging occurred. This behavior could then be compared to the CI of the grid, and credits would be proportionally allocated based on the CI at the time of charging. An aggregator would receive credits only when the CI of the grid was at or below a certain threshold.

3. Residential credits should be generated for both metered and non-metered EVs.

Ev.energy strongly urges the Department to take a technology-agnostic approach towards data collection requirements for EVs. We recommend against a separate metering requirement for residential EVs for three reasons. First, installing separate metering, or even installing an EVSE, is a costly investment that not every customer will be able to afford. In the spirit of equity, and to promote the greatest uptake possible of electric vehicles, we encourage the Department to not introduce additional artificial barriers to adoption such as metering requirements. Second, the data provided via vehicle telematics is of similar meter quality as metering data that is used for utility settlement purposes, and therefore should be sufficient for calculating credit generation. Third, the technology used to acquire the data is not nearly as critical as the technology used to control the vehicle charging. It is of much higher importance that an EV is charging during periods of low-CI electricity generation to ensure that minimal emissions are being created to charge the EV. Therefore, if anything, the Department should set standards around what controls are used to manage EV charging, and not necessarily around how the data is collected.

For these reasons, we request that the Department allow any metering technology to participate in the CFS as long as it can meet basic functionality requirements (i.e. measuring of energy usage and power delivered, assessing whether the vehicle is plugged in, and providing direct load control through start/stop or throttling of charging).

4. 2023 should be the first year of credit generation for EVs.

We agree with stakeholder comments that credit generation should be included in the 2023 rule. It is clear though the capabilities discussed in comments to this rulemaking that the technology and ecosystem is ready to support credit allocation through EVs. Furthermore, any delay will

inevitably postpone transportation electrification and erect further barriers to meeting Washington's climate objectives.

Conclusion:

Ev.energy believes its proposed modifications to the draft language will further the uptake of electric vehicles, thereby meeting Washington's goals of lowering CI of the transportation sector. In line with its proposals, ev.energy strongly supports several comments highlighted in the Department's November 16, 2021 stakeholder meeting, including:

1. Include in the 2023 rule: Credit generation for EVs by non-electric utilities, smart charging, and DCFC
2. Use network charging data [that captures time of charge] for residential EV charging, not averages/estimates
3. Adopt smart charging pathways to encourage charging at times when electric grid CI is low

Ev.energy appreciates the thoughtful consideration of its comments, and looks forward to continued engagement with the Department and stakeholders.

Sincerely,

Joseph Vellone

Joseph Vellone
Head of North America
EV.ENERGY CORP
433 Kipling Street
Palo Alto, CA 94301
Telephone: (914) 441-3728
Email: joseph.vellone@ev.energy