Washington Green Hydrogen Alliance (WGHA) (Michael Lord)

Please see attached file.

August 1, 2025

Adam Saul
Department of Ecology
Climate Pollution Reduction Program
300 Desmond Drive SE
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RE: Comments on Proposed Revisions to Chapter 173-424 WAC (Clean Fuels Program Rule)

Dear Mr. Saul;

The Washington Green Hydrogen Alliance (WGHA) appreciates this opportunity to comment on the proposed revisions to the Clean Fuels Program Rule. The WGHA mission is to advocate for policies and projects that advance renewable and green electrolytic hydrogen production, distribution, and end use in Washington State. Our member companies include Douglas County PUD, Tacoma Power, Toyota Motor North America and Ecolectro.

HRI Pathways

Hydrogen Refueling Infrastructure (HRI) Credit is a critical provision to address the fundamental requirement that hydrogen infrastructure must be built out in advance to enable zero emission vehicle deployment. We believe that it is important to keep all avenues open for electrification including fuel cell electric vehicles (FCEVs) for light-duty vehicles (LDVs) and medium-duty vehicles (MDVs). We also understand that it is the desire of the legislature to at a minimum promote MDV FCEVS. However, by eliminating HRI for LDV and MDVs , you are presupposing that BEVs will work in all use cases in these categories.

RCW 70A.535.050(2)(a) states:

> *(2)(a) The rules adopted under RCW 70A.535.030 and 70A.535.025 must allow the generation of credits based on capacity for zero emission vehicle refueling infrastructure, including DC fast charging infrastructure and hydrogen refueling infrastructure.*

We believe the intent and clear statement of "The rules…must allow the generation of credits based on capacity for zero emission vehicle refueling infrastructure" is to provide capacity credits for fueling of all types of fuel cell electric vehicles and thus enable the deployment of all types of zero emission fuel cell electric and battery electric vehicles. Further, this provision does not give Department of Ecology the authority to limit what category of zero emission vehicle it applies to.

In particular, we find your statement in CR-102), copied below, arbitrary, subjective and not supported in statute.

2.3.7 Modifying ZEV capacity crediting

The proposed rule amendments would reorganize requirements related to ZEV capacity crediting, retaining multiple baseline requirements and aggregate credit pools, but adjusting certain requirements. We expect the general reorganization proposed for these requirements to result in no impact beyond the changes identified above. This is because we do not expect (under the baseline or proposed rule) significant participation of light- and medium-duty hydrogen refueling infrastructure, which is the category eliminated under the proposed amendments.

Recently, Washington state opened the first publicly available Light-Duty hydrogen station in East Wenatchee at Douglas County PUD. Additionally, Toyota Mirai fuel cell electric vehicles are already deployed in the state, with commercially available LDV FCEVs available from at least 2 OEMs: Toyota[1] and Honda[2] and in quantities far surpassing what is commercially available in HDVs, likely for many years to come.

Therefore, we strongly request that the HRI provision for LDV and MDVs be reinstated in the regulation. Capacity credits must be available for hydrogen fueling infrastructure serving all vehicle classes, both to comply with RCW requirements and, importantly, to accelerate the deployment of all forms of low-carbon fuels for zero-emission vehicles as quickly as possible.

LDV and MDV FCEVs enable environmental equity by providing ZEV options for renters, off street parkers, apartment dwellers and others where home charging is not available and daily charging requiring long wait times at a public charging station is, at a minimum, a barrier for purchasing and using BEVs.

Renewable Content Rules for H2

The imposition of an 80% renewable hydrogen content requirement exclusively for HRI raises pertinent questions on discriminatory treatment, particularly in comparison to Fast-Charging Infrastructure (FCI), which does not have the 80% renewable electricity requirement.

In 2021 the legislature saw fit to add a definition of "green electrolytic hydrogen' to the RCWs where "renewable hydrogen" first appeared in 2019, recognizing that by 2030, the state's Clean Energy Transformation Act (CETA) requires that electricity used to serve load in the state has to come from 80% carbon free generation, with the remaining 20% being carbon neutral; and by 2045, all electricity has to be from carbon free generation.

This 80% renewable hydrogen requirement places hydrogen at a competitive disadvantage against electricity used to charge BEVs, which does not have a similar minimum renewable requirement. The hydrogen eligible for capacity credits should include both hydrogen electrolyzed with CETA compliant electricity, similar to the electricity used to charge BEVs,

[1] https://www.toyota.com/mirai/

[2] https://automobiles.honda.com/cr-v-fcev

and renewable hydrogen. Non-fossil electrolyzed hydrogen content should only be required to conform to CETA requirements. Adding "green electrolytic hydrogen" will conform to CETA electricity requirements and thus also include the use of "nonemitting generation" for hydrogen production. "Nonemitting generation" is allowed under CETA to meet all other uses of electricity in the state and would be included as a clean hydrogen pathway by including "green electrolytic hydrogen" consistent with state law.

Specific Recommendations:

Hydrogen Refueling Infrastructure (HRI) Pathways starting on Page 55:

- Remove the "HD-" where "HD-" has been added to HRI throughout WAC 173-424-560.
- Reinstate all references to light- and medium-duty vehicle stations.

Definition of Fuel Cell Electric Vehicle (FCEV)

Add the following definition on page 7.

> (XX) Fuel Cell Electric Vehicle (FCEV). An FCEV is an electric light-, medium- or heavy-duty vehicle that is powered by electricity generated by a fuel cell.

Definition of Electric Vehicle (EV)

Correct the definition of Electric Vehicles to include Fuel Cell Electric Vehicles as follows (additions and ~~deletions~~ highlighted in gray):

> (67) "Electric vehicle (EV)," for purposes of this regulation, refers to battery electric vehicles (BEVs), ~~and~~ plug-in hybrid electric vehicles (PHEVs) .

Green Electrolytic Hydrogen

We request that in the definitions section a definition of "green electrolytic hydrogen[3]" be added; and on page 20, in the new subsection at the top of the page.

> (d) Hydrogen. Effective January 1, 2030, hydrogen dispensed as a vehicle fuel must be at least 80 percent renewable *hydrogen or green electrolytic hydrogen*,

Also revise the requirement on Page 59 for hydrogen in the HRI requirement to reflect this as follows:

> (C) Starting January 1, 2030, the renewable or green electrolytic hydrogen requirements specified in WAC 173-424-120 (4)(d).

[3] RCW 54.04.190 and numerous other locations in the RCW "Green electrolytic hydrogen" means hydrogen produced through electrolysis and does not include hydrogen manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock.

(Note also that both the definitions of “renewable hydrogen” and “green electrolytic hydrogen” implicitly or explicitly excludes hydrogen produced from fossil fuel feedstocks):

Otherwise, we request that this additional restriction of only renewable hydrogen should be eliminated as it is unnecessary and counter to the carbon intensity focus of this regulation.

Definition of “Hybrid electric vehicle” (page 8)

As is often the case, industry and innovation overtake or outrun rulemaking assumptions. For instance, the definition of HEV excludes the previously referenced Honda Hybrid CRV (Light Utility Vehicle) whose “hybrid” is a battery electric and hydrogen powered fuel cell electric motor, battery electric for shorter commutes and hydrogen powered fuel cell electric energy source for longer distance drives[4]. While one may argue that the hydrogen is a “consumable fuel”, the conventional interpretation of “consumable fuel” is a combustible fuel such as gasoline, diesel, propane, etc. Under the broader interpretation of “consumable fuel” electricity stored in an energy storage device is also “consumed” so we think this addition will distinguish that an HEV can be entirely electricity driven, but with two different sources of electric generation.

> (91) "Hybrid electric vehicle (HEV)" means any vehicle that can draw propulsion energy from ~~both~~ either combination of the following on-vehicle sources of stored energy:
>
> (a) An energy storage device, such as a battery, capacitor, or flywheel; and either
>
> (b) A consumable fuel; or
>
> (c) hydrogen powering an on-board fuel cell.

Thank you for your consideration and feel free to reach out to me at michael.lord@wagreenhydrogen.com or Dave Warren at dave@warren-group.net if you have any questions or concerns.

Michael Lord, Executive Director
Washington Green Hydrogen Alliance
www.wagreenhydrogen.com

[4] https://automobiles.honda.com/cr-v-fcev