



March 23, 2024

Department of Ecology
State of Washington
P.O. Box 47600
Olympia, WA 98504-7600

RE: Clean Fuel Standard rulemaking (173-424 WAC)

Dear Adam Saul,

Thank you for the opportunity to provide informal comments to the effort to update Washington's Clean Fuel Standard.

Forum Mobility is a leading developer of turn-key electric truck solutions for fleets and drivers, working to enable the transition to zero emission freight. Forum is building a network of staffed and secure heavy duty truck charging depots in and around ports and along common freight corridors, and provides either charging, or a truck plus charging together, for a monthly fee.

Below, we provide input and suggestions for updating the rules governing the capacity crediting program (known as Fast Charging Infrastructure, or FCI) under the Clean Fuels Standard in order to serve the needs and use cases of the medium and heavy duty (MHD) sector. A similar effort to update California's Low Carbon Fuel Standard is underway as well, and many of our recommendations mirror changes under consideration there.

First, we would like to note that the FCI program is one of the most important tools available for supporting the effective transition to zero emission transportation.

Buying trucks is fast, building infrastructure is slow. A common roadblock to fleet adoption of battery electric trucks is the lack of charging infrastructure; and similarly, the economics of providing charging is stymied by the lack of vehicles, and resulting utilization and revenues. The FCI is an elegant policy solution that breaks through this chicken-or-egg stalemate. It works like this: in order to incentivize the deployment of off-site charging depots that can serve drivers and fleets in advance of vehicle deployment, FCI allows qualifying facilities to receive Clean Fuel Standard capacity payments as if the station had a certain utilization rate for a short period of time. As vehicles begin to use the facility, the regular CFS credits supplant the FCI capacity payments, and the depot gradually rolls off the program. The FCI is an effective policy tool to build the necessary ecosystem of charging to encourage and enable vehicle deployment.

This program has been piloted in California for light duty vehicles to great effect, and is currently going through a rulemaking process to adjust the program for the MHD sector. This is a crucial point: the charging needs, sector challenges, and use cases of freight business that MHD vehicles serve are vastly different from light duty, and programmatic adjustments must be made in order to provide effective support.

Specifically, while many MHD vehicles may be able to be charged behind-the-fence at home facilities, a large number – perhaps even the majority – will need to access charging through 3rd party depots for all of their fueling needs. Here’s why: in order to install charging infrastructure, a driver or a fleet needs at least three things: 1) owned property, or at least a 10 year lease in order to sufficiently amortize the cost (over 50% of warehouses have leases under 5 years); 2) be on a distribution feeder with adequate power capacity; and 3) have sufficient capital. In our experience, both individual owner operators and large fleets alike are challenged by at least one of these conditions – particularly access to sufficient power on distribution feeders.

Third party depots are designed to overcome these challenges to serve fleets and individual owner operators alike. They are built on dedicated sites where power is available, on common freight routes, and characterized by the ability to serve multiple fleets at a time. A useful analogy is community solar: shared infrastructure that multiple parties invest in and derive benefits from. For the MHD sector, the 3rd party depots often play the role of both ‘charging at home’ and ‘charging on the road’ - and policy should be adjusted to account for this fact.

The usage and needs of MHD vehicles are very different than passenger vehicles, and policy must be adapted accordingly. Specifically, working trucks that deliver freight need to have a guaranteed spot to charge at the end of a duty cycle in order to be ready for the next, and need to be able to schedule mid-route charges rather than show up at a depot and wait. **Guaranteed access** and **schedulability of charging** are services that freight businesses need and 3rd party depots can provide. Public availability of depots must be defined to allow for the provision of these crucial services. To this point, the Washington Transportation Electrification Strategy (TES) made a useful recommendation, specifically to:

“Amend Clean Fuel Standard rules to allow capacity credits for private fleet depots: In order to be eligible under this change from Ecology, projects would need to demonstrate a public benefit (for example, improving air quality in overburdened communities) and serve two or more fleets.”¹

The TES was developed through a year-long multi-stakeholder and multi-agency process, and a concerted effort to represent the interests of diverse Washingtonians, including under-represented groups.²

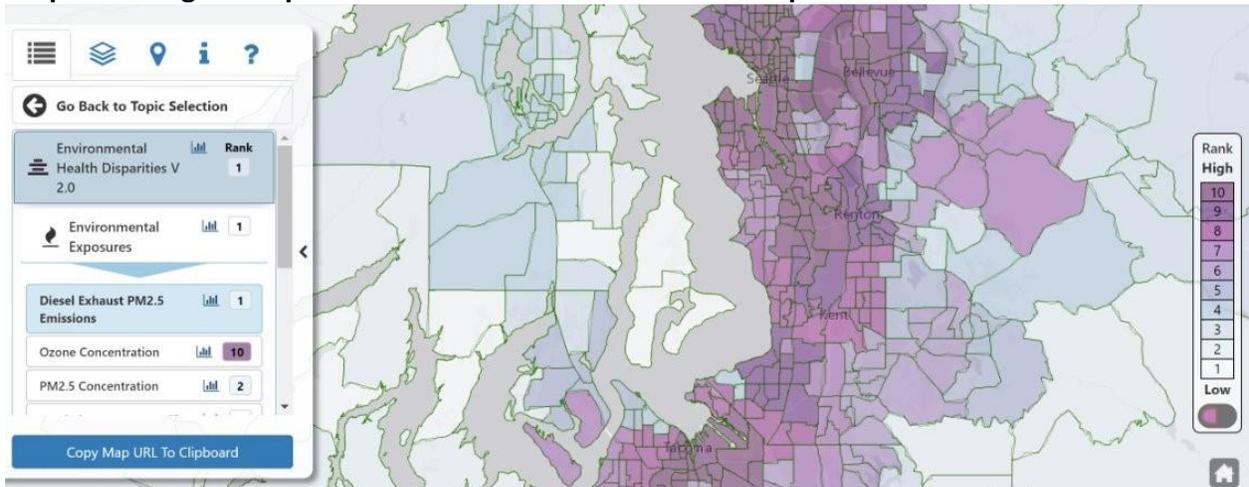
¹ Recommendation 2.8, on page 112

<https://deptofcommerce.app.box.com/s/uphekt6rwpmtvbhojyi6eifjxdwttdvh>

² <https://www.commerce.wa.gov/growing-the-economy/energy/clean-transportation/ev-coordinating-council/transportation-electrification-strategy/>

In Washington, transportation accounts for almost half of the state’s GHG emissions, and diesel accounts for about 9% of the total. Port communities and transportation adjacent communities like Georgetown, South Park, and Duwamish Valley have substantially higher health risks due to their proximity to freight routes, and transitioning diesel trucks to zero emission vehicles is an excellent and effective path to improve air quality in overburdened communities.³

Map: Washington Department of Health Environmental Disparities



Some additional recommendations to the FCI:

Size of eligible depots. Fleets serving freight businesses can be quite large – in the hundreds of vehicles – and the batteries for these vehicles are similarly large. Depots serving this sector can easily be over 10 MW in power capacity. California’s proposed regulations cap the total nameplate power rating for all FSEs at an eligible site at 10 MW, and we recommend that Washington similarly raise the limit from 1,500 kW to 10 MW. Larger depot sizes will help reduce costs, which will improve access.

Size of program. The proposed California program is for 2.5 percent of the previous quarter's deficits.⁴ In order to insure that the size of the program adequately serves the need for

³ Map source: <https://doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn/washington-environmental-health-disparities-map>

⁴ <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/appa-2.pdf>

charging, several coalitions of MHD infrastructure providers are recommending increasing the program to 5% of previous quarter deficits, and we similarly recommend that Washington take further efforts to match the size of the program to transition ambition.⁵

Charging connectors. The current WA regulation requires that eligible sites have multiple connector types. Currently, all MHD trucks actively available on the market take SAE CCS, and this requirement is not applicable.

Utilization rate and period. For MHD, California's proposed regulations provide for a FCI crediting period of 10 years at 20% utilization rate, and 50% utilization rate for hydrogen dispensers. For the most effective program, we recommend 50% utilization for 5 years.

We appreciate the opportunity to provide input to this crucial program, and we look forward to continuing to collaborate to support an equitable transition to zero emission freight in WA.

Yours,

Adam Browning,
EVP Policy and Communications
Forum Mobility

⁵ <https://www.arb.ca.gov/lists/com-attach/6859-lcfs2024-VDEAcFAyWGoKIQVm.pdf>
<https://www.arb.ca.gov/lists/com-attach/6957-lcfs2024-AWxXOVM2VloHYgRs.pdf>