

March 3, 2026

RE: International Council on Clean Transportation comments on Chapter 173-424 WAC and WAC 173-455-150, Clean Fuels Standard Rulemaking Informal Comment Period

These comments are submitted by the International Council on Clean Transportation (ICCT). The ICCT is an independent nonprofit organization founded to provide unbiased research and technical analysis to environmental regulators. Our mission is to improve the environmental performance and energy efficiency of road, marine, and air transportation in order to benefit public health and mitigate climate change. We promote best practices and comprehensive solutions to increase vehicle efficiency, increase the sustainability of alternative fuels, reduce pollution from the in-use fleet, and curtail emissions of local air pollutants and greenhouse gases (GHG) from international goods movement.

The ICCT welcomes the opportunity to provide comments on the scope of the upcoming Clean Transportation Standard rulemaking. Our comments address two topics raised by the department of Ecology: how to incentivizing transportation electrification within the program, and how to improve the integrity of GHG reductions credited in the program.

We would be glad to clarify or elaborate on any points made in the below comments. If there are any questions, Treasury staff can contact Andy Navarrete ([a.navarrete@theicct.org](mailto:a.navarrete@theicct.org)) and Nikita Pavlenko ([n.pavlenko@theicct.org](mailto:n.pavlenko@theicct.org)).

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## Improved implementation to support transport electrification

Washington's legislated commitments to GHG reductions have been imperiled by federal policy changes. In particular, likely invalidation of Advanced Clean Cars II and Advanced Clean Trucks threatens a key pillar of Washington's transportation decarbonization strategy. In this context, the current rulemaking is an important opportunity for Ecology to keep Washington's climate goals on track through improved Clean Fuel Standard (CFS) implementation. The following updates could allow the CFS to better support transport electrification:

### *Update light-duty EV EER default values to reflect Washington's current fleet average*

The current CFS energy efficiency ratio for light and medium duty is 3.4. This value is based on the California Air Resources Board's analysis of 2011 model year vehicles.<sup>1</sup> More recent analysis suggests that the current light duty EV fleet has a higher efficiency ratio relative to current internal combustion vehicles. For example, a 2020 analysis from the National Renewable Energy Laboratory found a combined EER of 4.4 for 2021 model year vehicles, a 29% increase over Washington's current value.<sup>2</sup>

Washington's current light duty EV EER is also lower than other global standards. For example, Canada's Clean Fuel Regulations use a 4.1 EER for light duty EV Charging.<sup>3</sup> The EU Renewable Energy Directive likewise guides member states to use a multiplier of 4.0 for electricity used in charging electric vehicles.<sup>4</sup> By updating the light duty EV EER, Ecology can ensure that light duty vehicles charging is correctly incentivized relative to pathways relying on internal combustion technology.

### *Consider increasing capacity credit limits for HD-FCI and FCI pathways*

For potential EV owners making frequent long-distance trips, widely available fast charging infrastructure is important for making an EV a viable option. Likewise, for heavy duty vehicle fleets with demanding duty cycles, fast charging infrastructure is essential for recharging high capacity batteries. Deployment of fast charging infrastructure is also a

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<sup>1</sup> California Air Resources Board. 2011. Initial Statement of Reasons for Proposed Rulemaking.

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2011/lcfs2011/lcfsisor.pdf>

<sup>2</sup> Singer et al. 2023. Electric Vehicle Efficiency Ratios for Light-Duty Vehicles Registered in the United States. <https://docs.nrel.gov/docs/fy23osti/84631.pdf>

<sup>3</sup> Clean Fuel Regulations: SOR/2022-140. <https://gazette.gc.ca/rp-pr/p2/2022/2022-07-06/html/sor-dors140-eng.html>

<sup>4</sup> Directive (EU) 2018/2001 of the European Parliament

[https://eur-lex.europa.eu/legal-](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.328.01.0082.01.ENG&toc=OJ:L:2018:328:TOC)

[content/EN/TXT/?uri=uriserv:OJ.L\\_.2018.328.01.0082.01.ENG&toc=OJ:L:2018:328:TOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.328.01.0082.01.ENG&toc=OJ:L:2018:328:TOC)

long-term investment fully aligned with Washington’s goal of achieving 100% ZEV deployment.

In California, limits on HD-FCI charging credits may slow down infrastructure deployment as soon as 2027.<sup>5</sup> To avoid unnecessarily curtailing charging infrastructure in Washington, Ecology should consider investigating charging infrastructure needs and adjusting capacity credit limits accordingly.

*Consider increasing the Advanced Credits cap to the 10% statutory maximum*

Relative to conventional equipment, overall costs are often front-loaded for electrified transportation technology. In many cases total ownership costs of zero emission equipment may even be lower than conventional alternatives, but high upfront costs can be a barrier to adoption when budgets are limited.<sup>6</sup> Increasing the Advanced CFS credits available to state agencies from the current 5% limit to the statutory 10% maximum could help Washington agencies maintain ZEV technology deployment momentum in the face of greatly reduced federal support.

### **Increase biomass-based diesel GHG reduction integrity**

To date, 39% of the renewable diesel and biodiesel credits under the CFS have come from soy and canola oil feedstocks.<sup>7</sup> However, recent evidence suggests that after accounting for induced land use change emissions, vegetable oil-based diesel fuels may not reduce global GHG emissions whatsoever. For example, groundbreaking work from Chen et al. links biomass-based diesel (BBD) demand between 2002 and 2019 to rising vegetable oil prices globally and finds that BBD driven vegetable price increases resulted in significant deforestation in Malaysia and Indonesia.<sup>8</sup> Concerningly, the authors estimate that the resulting GHG emissions completely offset any GHG savings from the displacement of petroleum based diesel by vegetable oil based fuels. Recent analysis from Guidehouse on behalf of the European Commission supports this

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<sup>5</sup> O’Malley and Pavlenko. 2025. Impacts of California Low Carbon Fuel Standard amendments on support for medium- and heavy-duty vehicle electrification. <https://theicct.org/publication/impacts-of-california-lcfs-amendments-on-meeting-hdv-sector-electrification-targets-oct25/>

<sup>6</sup> International Energy Agency. 2025. Trends in electric car affordability. <https://www.iea.org/reports/global-ev-outlook-2025/trends-in-electric-car-affordability>

<sup>7</sup> CFS Quarterly Summary Q3 2025.

<sup>8</sup> Chen et al. 2025. Using Vegetable Oils for Biofuel Accelerates Tropical Deforestation and Increases Carbon Emissions. [https://www.dropbox.com/sc/fi/06ug6d414ka6mq2cqryuy/Palm\\_Deforestation\\_full\\_Ch\\_en\\_Sexton\\_Smith\\_10\\_30.pdf?rlkey=fpl7ugs421cu2iqfqbm1xdzvp&dl=1](https://www.dropbox.com/sc/fi/06ug6d414ka6mq2cqryuy/Palm_Deforestation_full_Ch_en_Sexton_Smith_10_30.pdf?rlkey=fpl7ugs421cu2iqfqbm1xdzvp&dl=1)

conclusion, finding significant expansion of vegetable oil crop production onto high carbon stock land.<sup>9</sup>

The significant crediting of soybean and canola based fuel under the CFS therefore suggests that Ecology's current approach to ensuring GHG reduction integrity may understate the impacts of these fuels. While the CFS accounts for induced land use emissions of crop based fuels using California Air Resources Board's (CARB) 2015 analysis using the GTAP-BIO model, independent assessments of this model have found significant problems with its underlying structure.<sup>10</sup> Most concerning, the model used in CARB's 2015 analysis does not account for the expansion of agriculture onto unmanaged forest and grasslands.<sup>11</sup> Conversions of this type are expected to produce the majority of land use change emissions.

Without intervention, credits for vegetable oil based BBD are likely to grow further, putting additional pressure on vegetable oil markets. The federal government has recently proposed a significant increase to the volume of BBD mandated under the Renewable Fuel Standard (RFS)<sup>12</sup> and Federal 45Z Clean Fuel Production Credits were also recently updated to ignore land use change impacts.<sup>13</sup> The most likely consequence is large volumes of additional vegetable oil based BBD production within the United States,<sup>14</sup> and producers of these fuels will inevitably seek to gain additional value by delivering fuel into Washington and other clean fuel standard states without additional climate benefits.

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<sup>9</sup> Support for the implementation of the provisions on ILUC set out in the Renewable Energy Directive Lot1 – HILUC. A review of the feedstock expansion report. (2026). <https://op.europa.eu/o/opportal-service/download-handler?identifier=b6a58bec-f742-11f0-b9bc-01aa75ed71a1&format=PDF&language=en&productionSystem=cellar>

<sup>10</sup> Berry et al. 2024. Biofuels, Deforestation and the GTAP model. <https://tobin.yale.edu/research/biofuels-deforestation-and-gtap-model>; Malins et al. 2020. How robust are reductions in modeled estimates from GTAP-BIO of the indirect land use change induced by conventional biofuels? <https://www.sciencedirect.com/science/article/abs/pii/S0959652620307630>

<sup>11</sup> Plevin et al. 2022. Choices in land representation materially affect modeled biofuel carbon intensity estimates  
Journal of Cleaner Production. <https://doi.org/10.1016/j.jclepro.2022.131477>

<sup>12</sup> Environmental Protection Agency. 2025. Renewable Fuel Standard (RFS) Program: Standards for 2026 and 2027, Partial Waiver of 2025 Cellulosic Biofuel Volume Requirement, and Other Changes. <https://www.govinfo.gov/content/pkg/FR-2025-06-17/pdf/2025-11128.pdf>

<sup>13</sup> Internal Revenue Service. 2026. Treasury, IRS issue proposed regulations on the clean fuel production credit under the One, Big, Beautiful Bill. <https://www.irs.gov/newsroom/treasury-irs-issue-proposed-regulations-on-the-clean-fuel-production-credit-under-the-one-big-beautiful-bill>

<sup>14</sup> Navarrete, A. 2025. U.S. Renewable Fuel Standard proposal would mean more vegetable oil imports, high costs, and minimal greenhouse gas reductions. <https://theicct.org/us-renewable-fuel-standard-proposal-would-mean-more-vegetable-oil-imports-high-costs-and-minimal-greenhouse-gas-reductions-dec25/>

In light of these findings, we recommend that Ecology update the CFS to help ensure that GHG credits attributed to the use of BBD fuels correspond to real emission reductions. As described in an ICCT technical brief focused on the LCFS, a cap on lipid-based fuels could be a relatively simple solution to increasing GHG reduction integrity of a clean fuels program.<sup>15</sup> Other approaches could also be considered. For example, increased LUC values could better reflect the risk of compensatory expansion oil crops onto high carbon stock land.

To counter the distortions caused by overlap with federal policy, Ecology could also consider adjusting the CI values of BBD to discount GHG savings already required by the RFS. Under the RFS, BBD must achieve a minimum 50% GHG reduction to qualify under the program.<sup>16</sup> Revising BBD crediting such that only GHG savings beyond the 50% minimum generate credits would ensure that GHG savings from BBD credited by the CFS are additional to what is federally required.

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<sup>15</sup> O'Malley et al. 2022. Setting a lipids fuel cap under the California Low Carbon Fuel Standard. <https://theicct.org/publication/lipids-cap-ca-lcfs-aug22/>

<sup>16</sup> 53 U.S. Environmental Protection Agency. Overview of the Renewable Fuel Standard Program. <https://www.epa.gov/renewable-fuel-standard/overview-renewable-fuel-standard-program>