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SUBMITTED ELECTRONICALLY

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300 Desmond Drive SE,
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**Re: Comments to the Washington State Clean Fuels Program Rule
Chapter 173-424 WAC**

Mr. Creswell:

Tesoro Refining & Marketing Company LLC (TRMC), a wholly owned subsidiary of Marathon Petroleum Corporation (together with TRMC, MPC), appreciates this opportunity to comment on Washington State's Clean Fuels Program Rule Chapter 173-424 WAC.

MPC is a refiner and marketer of transportation fuels in the State of Washington and is investing in low carbon solutions that will meet the energy demands of today and in the future. MPC's commitment to lower carbon solutions is reflected in the conversion of its petroleum refineries into renewable fuel production facilities in Dickinson, North Dakota and Martinez, California. When complete, these two facilities are expected produce up to 2.5 million gallons per day of renewable transportation fuels with a life-cycle carbon intensity approximately 50 percent less than petroleum-based fuels.

Through the passage of House Bill 1091 (HB 1091), the Washington State Legislature authorized the Washington State Department of Ecology (DOE) to adopt rules that "establish standards that reduce carbon intensity in transportation fuels used in Washington."¹ Establishing the Washington Clean Fuel Standard (CFP) created the third of three low carbon fuel programs in the United States (U.S.) today, following only California and Oregon. The comments included here are intended to provide feedback to DOE on the Preproposal Statement of Inquiry, CR-101.

Projects that demonstrate emission reductions in a fuel's life cycle must be credited in the Washington CFP.

MPC recognizes the value in evaluating a fuel based on its life cycle emissions. First, it allows

¹ [WA LCFS Bill HB 1091](#)

for a full accounting of any fuel's emissions, from feedstock to end use, and second, it provides the producer or supplier the opportunity to identify cost-effective solutions to reduce emissions at multiple points within the fuel's life cycle.

The California Air Resources Board (CARB) determined the refining portion of emissions in the production of California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) was 14.80 gCO_{2e}/MJ out of a total 100.82 gCO_{2e}/MJ². CARB identified the need for crediting opportunities within the refinery production process to support projects that reduce a fuel's carbon intensity (CI). MPC was the first applicant to receive approval for a California Low Carbon Fuel Standard (LCFS) Refinery Investment Credit Program³ project⁴ and sees this as an important mechanism to ensure the CFP is successful. Section 6(a)(ii) of HB 1091 allows DOE to adopt rules that are "project-based refinery greenhouse gas mitigation including, but not limited to, process improvements, renewable hydrogen use, and carbon capture and sequestration"⁵.

MPC recommends DOE include a Refinery Investment Credit provision in this rulemaking to support refinery projects, such as electrification of machinery that substitutes high carbon intensity energy with grid electricity and process improvement projects.

Life cycle analysis (LCA) modeling must be transparent, technology inclusive, and use the latest data.

DOE's workshops four (4)⁶ and five (5)⁶, largely focused on its LCA modeling. DOE provided to stakeholders the LCA model inputs, like crude oil, natural gas, and electricity consumption it used to determine the petroleum-based, gasoline and diesel CI's most other fuels subject to the CFP will be benchmarked against. This important work also included discussions about indirect land use change (iLUC), a value included in the life-cycle accounting for biofuels that attempts to account for emission changes in land use from crops used in the production of fuels.

MPC supports DOE's use of Argonne National Laboratories (ANL) Greenhouse Gas, Regulated Emissions, and Energy in Transportation (GREET) model. This is the same model used for both California's and Oregon's programs and will provide a consistent, vetted approach to determining the CI's of fuels. The iLUC discussion in workshop five (5)⁶ focused on various models used to determine the values. MPC is in favor of DOE using the Global Trade Analysis Project (GTAP) model for this work.

Importantly, because the CFP is a performance standard and fuels are judged against DOE's modeling results, MPC encourages DOE to draw from the newest versions of these models for this and any future CFP rulemaking.

² [CARB CI for CARBOB](#)

³ LCFS Regulation, Title 17, California Code of Regulations (CCR), sections 95480- 95503

⁴ [CARB website for project-based crediting](#)

⁵ [WA HB 1091](#)

⁶ [WA Ecology webpage for 173-424 WAC rulemaking](#)

Sustainable farming practices must be encouraged through the CFP.

Use of life cycle analysis provides an opportunity to account for emission reductions in each step of a fuel's life, from feedstock origin to final use. Recognition for sustainable farming practices in the CFP is an important step that will incentivize farmers of feedstocks used in producing transportation fuels to adopt sustainable strategies, such as reduced and no till operations, use of cover crops to reduce fertilizer consumption and reductions in overall energy use.

MPC recommends DOE encourage pathway applicants to input site-specific data from farmers in the applicant's feedstock supply chain. DOE can do this by incorporating a soil organic carbon model such as FIELDtoMARKET, which incorporates USDA's COMET PLANNER or ANL's FD-CIC.

Carbon intensity standard should be set with feasible supply scenarios.

HB 1091 provided direction to DOE on the requirements the program would be designed to achieve. In workshop four (4)⁶, DOE provided in its "stakeholders comments"⁷ concepts that would increase the date at which the 20% CI reduction would occur, 2034 versus 2038. While a four-year difference may not appear to be significant, it is substantial when considering the changes in the State's fuel mix. Many fuels today achieve a CI reduction greater than 20%, however, the supply of these fuels can be limited by multiple disconnected variables that include feedstock availability and consumer acceptance for new modes of transportation.

Both Oregon and California have developed fuel supply scenarios^{8,9} that demonstrate, under various targets, a view on the fuel and technology mixes necessary to achieve the program targets. MPC encourages DOE to develop a similar set of supply scenarios for Washington that show how it believes the CFP will achieve its targets. With three U.S. low carbon fuel standards plus the British Columbia low carbon fuel standard, in a region where fuel supplies are largely connected, DOE should seek to understand the interaction between the programs and how various targets will impact the State.

Co-processing of renewable and petroleum feedstocks provides opportunities to lower the CI of fuels produced in Washington.

As renewable fuels take the place of traditional petroleum fuels, options to produce renewable fuels through various means should be available. MPC has long been part of CARB's development of a process to quantify the renewable content of co-processed fuels. MPC sees opportunities to utilize both mass balance and Carbon-14 to effectively¹⁰ measure the biogenic portion of a co-processed fuel and recently commented¹¹ on a proposed CARB Temporary Pathway that included

⁷ [WA Ecology slide deck for Workshop four](#)

⁸ [CARB illustrative compliance scenario](#)

⁹ [OR DEQ illustrative compliance scenario](#)

¹⁰ [Comments to co-processing workshop](#)

¹¹ [Comments to CARB Temporary pathway](#)

co-processing of bio feedstocks through a Fluid Catalytic Cracker (FCC). While complex, done correctly, these pathways will provide additional opportunities to lower the CI of fuels produced in Washington.

Sustainable Aviation Fuel (SAF) needs policy support.

Workshop five (5)⁶ included a review of DOE contractor Life Cycle Associates modeling work by the International Council on Clean Transportation (ICCT). In that review, ICCT indicated opt-in SAF should be credited on its own declining benchmark. As stated above, MPC believes the CFP must use a science-based approach relying on the best available data, and an alternative fuel should be benchmarked against the petroleum fuel it is replacing.

However, policy makers must be aware the existing price signals to produce SAF may not always be enough to modify and install production equipment to produce SAF. To overcome these economic challenges a policy direction DOE should consider incorporating into the CFP is the use of measured credit multipliers that bring added value to produce SAF, in line with renewable diesel. As the renewable diesel and SAF markets expand, and additional production comes on-line, these credit multipliers could be revisited, but in the early stages of a fuel's development, if the policy choice is to incentivize SAF production, credit multipliers are a tool for DOE to consider.

Closing

MPC has appreciated its interactions with DOE staff and looks forward to additional discussions. Thank you again for this opportunity to comment on the Preproposal Statement of Inquiry, CR-101.

Sincerely,
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