Tesoro Refining &
Marketing Company LLC

SUBMITTED ELECTRONICALLY

June 23, 2022

Rajinder Sahota
Deputy Executive Officer
Climate Change and Research
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on the Draft 2022 Scoping Plan Update

Ms. Sahota:

Tesoro Refining & Marketing Company LLC, an indirect, wholly owned subsidiary of Marathon Petroleum Corporation, (collectively, MPC) appreciates this opportunity to provide comments on the California Air Resources Board's (CARB) Draft 2022 Scoping Plan Update[1] (Scoping Plan).

MPC is a refiner and marketer of transportation fuels in the State of California 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 two petroleum refineries into renewable fuel production facilities in Dickinson, North Dakota and Martinez, California. Combined, these two facilities will be capable of producing 2.5 million gallons per day of renewable transportation fuels with a life-cycle carbon intensity approximately 50 percent less than petroleum-based fuels.

This Scoping Plan adds carbon neutrality to California's other Greenhouse Gas (GHG) reduction targets established by both AB32 (Global Warming Solutions Act of 2006) and SB32 to identify "technologically feasible, cost-effective and equity-focused path to achieve carbon neutrality by 2045 or earlier"[2]. To develop this update, CARB identified four alternatives, two that aim to achieve carbon neutrality by 2035 and two that aim to achieve carbon neutrality by 2045. To design the four alternatives, CARB relied on climate legislation and executive orders enacted since the 2017 Scoping Plan that serve as the Scoping Plan's backbone. In addition to climate legislation and executive orders, existing carbon reduction technologies, such as Carbon Capture and Sequestration (CCS), were added to understand their role in achieving California's carbon neutrality goal

[1] Draft 2022 Scoping Plan Update: CARB website.

[2] *Id.* At Executive Summary.

Each alternative represents an unprecedented task that will likely require trillions of dollars of both private and government investment to achieve the level of carbon reductions envisioned. MPC's work to convert its Martinez, California petroleum refinery to produce 100% renewable products is an example of how private investment can be deployed to reduce facility emissions and the life-cycle GHGs of fuels in the transportation sector. MPC would like to offer CARB the following reflections and recommendations for the development of the Scoping Plan.

Certainty in markets is key to bringing innovation to the table.

Market-based mechanisms provide a platform to reduce emissions cost-effectively. The signal CARB has created through its suite of measures under the AB32 umbrella has provided entities the opportunity to play a major role in California's energy transformation and deliver emission reductions within California.

Unfortunately, this Scoping Plan moves away from a market-based approach to reduce GHGs in favor of prohibitions and mandates which will minimize consumer choice and likely result in higher energy costs, decrease reliability of energy supply, and cause emission leakage. Prohibitions and mandates predestine winners and losers and should not be a starting point. Rather, CARB should maintain, as a policy principle, any and all solutions that deliver GHG reductions are on the table. CARB could do this by including a new Scoping Plan alternative that establishes market-based standards that allow for all technologies to compete going out to 2045. This would bring cost effective and innovative emission reduction solutions to the table.

Keeping pace with the Scoping Plan alternative will require alignment.

The Scoping Plan relies on a significant build out of resources that will be necessary to deliver emission reductions at industrial facilities. Whether it is an energy efficiency project at a petroleum refinery, renewable fuel production facility or a system that carries CO_2 captured at a facility to a sequestration site, each project, if considered for construction in California, will require significant permitting through local permitting agencies. MPC thanks the Contra Costa County Board of Supervisors, the Contra Costa County Planning Commission, and the Department of Conservation and Development for the in-depth research and due diligence they performed to approve the Martinez Renewable fuels project. However, MPC is concerned by the pace at which CARB assumes projects will occur in this Scoping Plan and views CARB's assumptions as unreasonably optimistic.

MPC recommends CARB review its timelines and consider the impacts of project level California Environmental Quality Act (CEQA) reviews when new equipment must be installed to achieve emission reductions. The Scoping Plan should include policy proposals that will streamline the permitting process for projects that meet the objectives of the Scoping Plan. This would provide greater certainty to private investments in low carbon technologies.

The proposed utilization of CCS is limited and will create stranded assets.

MPC sees the potential for CCS to play a major role in reducing emissions from process and combustion equipment found in both petroleum refineries and renewable fuels facilities. Utilization of CCS with Steam Methane Reformers that produce hydrogen, is an example of a technology pairing that could deliver immediate reductions cost-effectively. However, the Scoping Plan appears to insinuate that installing CCS could result in stranded assets if installed at a refinery today.

Figure 2-3[3] of the Scoping Plan compares assumed petroleum refining emissions with and without CCS over time. The figure illustrates CCS's significant potential for emission reductions, between 20 and 30 MMTCO2e each year. However, by 2045, the difference between the two cases (utilizing CCS and not utilizing CCS) is only about 10 $MMTCO_2e$, suggesting, between 10 to 20 $MMTCO_2e$ that was captured prior to 2045 is no longer being produced by 2045. In other words, it suggests a number of refineries will no longer be in operation.

The amount of equipment required to enable CCS at a petroleum refinery or renewable facility is significant. Figure 2-3 appears to paint an unrealistic proposal for CCS that moves from overutilization to under-utilization of the CCS technology within about ten years. This assumption, if relied on would lead to stranded CCS assets at California's refineries. For petroleum refineries, because the emission reductions tied to an alternative without CCS is largely due to decreased demand for petroleum products, it is unclear why CARB believes the capital will be deployed to install it.

MPC recommends CARB review its strategy to incentivize CCS at facilities. This strategy must consider the timing needed to permit equipment inside California as well as expand the list of sectors that CARB anticipates utilizing CCS. CARB may find other solutions to balance the need across sectors and deliver a sustainable CCS strategy.

Renewable gasoline has a place in the Scoping Plan

CARB should include in its Transportation sector modeling the demand for renewable gasoline. Facilities that produce renewable diesel also produce renewable gasoline blendstocks. Typical yields of the fuel account for 2% to 3% of total feedstock. Based on CARB's LCFS Quarterly data spreadsheet[4], the demand for renewable gasoline increased fivefold in 2021 relative to 2020. Although renewable gasoline represents a small portion of the overall gasoline pool, it should not be ignored.

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[3] *Id.* At 69.
[4] CARB Quarterly data spreadsheet

MPC's wholly owned subsidiary, Virent, Inc., is working to commercialize a drop-in renewable gasoline without any blend wall limitations. Technologies such as this have a place in the Scoping Plan as they have the potential to deliver significant emission reductions if the proper signal is applied.

Closing

The task CARB has in front of it, to develop a plan that reliably transforms the energy system in California, is tremendous. CARB must use its tools to incentivize early reductions and spur innovation, not close doors. MPC thanks CARB for this opportunity to comment on the Scoping Plan.

Sincerely,
Brian McDonald
Marathon Petroleum Corporation | Corporate Environmental

Cc: Matthew Botill, Division Chief, Industrial Strategies