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Assistant General Counsel

July 9, 2021

Ms. Liane Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento CA 95814

Subject: Comments to the Public Workshop Series to Commence Development of the 2022 Scoping Plan Update

Dear Chair Randolph:

Oxy Low Carbon Ventures (“OLCV”) appreciates this opportunity to provide comments to the California Air Resources Board’s (“CARB”) opening workshops of the 2022 Scoping Plan Update held June 8, 2021 through June 10, 2021.

OLCV and its affiliates are leading efforts to deploy carbon capture and sequestration and direct air capture projects. OLCV “CARB-1” project has an application currently under review by CARB to store biogenic CO₂ in accordance with the Carbon Capture and Sequestration Protocol (“CCS Protocol”) under the Low Carbon Fuel Standard (“LCFS”). OLCV is also working on a first of its kind commercial scale direct air capture (“DAC”) project that will remove and sequester carbon dioxide from the atmosphere – directly addressing the 409.8 parts per million of carbon dioxide in the atmosphere.

California is at the leading edge of global efforts to address global warming and has made notable progress in decarbonizing its economy. However, a great deal of work remains if the state is to achieve carbon neutrality no later than 2045. OLCV’s view is that the 2022 Scoping Plan should ensure that all options and strategies be considered, including:

1. Regulations and policies to further incentivize the deployment of carbon capture and sequestration (“CCS”) technologies. CCS is a proven technology that can help California reduce or eliminate emissions from large point sources. Incentivizing broader deployment should include updating California's current Cap-and-Trade and Mandatory Greenhouse Gas Reporting Regulation ("MRR") to allow an entity to subtract captured and geologically sequestered CO₂ from its compliance obligation. This will necessarily require incorporation of the CCS Protocol (or similar) into the MRR. Such an approach will broaden the scope of decarbonization technologies California utilities have at their disposal and help ensure affordable, reliable power for Californians. We recommend that CARB strongly consider such an option.
2. Recognizing a variety of technologies as capable of meeting SB100's definition of a zero-carbon resource. Technologies to recognize must include natural gas power plants with carbon capture processes that route carbon dioxide to an approved CCS project for safe,

secure and permanent sequestration. Natural gas power plants are one of the largest capturable emission sources in California and such recognition, through regulatory revisions, will help ensure Californians will have access to firm, dispatchable power that will increase grid reliability while still achieving carbon neutrality.

3. Concurrent with the early phases of the 2022 Scoping Plan, CARB should consider a number of improvements to the CCS Protocol and its associated guidelines to ensure that well qualified CCS projects can meet the requirements of the LCFS. These improvements include revising the definition of Brine (CCS Protocol (CCSP) section A.2.8), clarifying requirements for independent third party reviews (CCSP section C.1.1.1), strengthening well construction and operating requirements (CCSP section C.3.1.c.3), increasing corrosion monitoring frequency (CCSP section C.4.1.a.3), creating a workable seismic monitoring system (CCSP section C.4.3.2.3), addressing legal limitations on penetrations to the storage complex (CCSP C.9.c), and providing a process for recognizing other state regulatory programs.
4. Concurrent with the early phases of the 2022 Scoping Plan, revising the LCFS to further incentivize DAC projects by allowing the generation of LCFS credits during construction will spur the deployment of a critical climate mitigation technology. Well qualified projects that can demonstrate financial assurances should be able to generate credits during project construction. These credits would then be restored to the LCFS over the operating life of the project.
5. There is a need for guidance for the use of power purchase agreements ("PPA's") for direct air capture and other CCS projects. Facilities to capture CO₂ from the atmosphere or from anthropogenic sources consist of three separate projects: a capture project; a sequestration project; and, a power project. The power project for an integrated CCS project is critical. The power project must provide energy from a renewable or zero-carbon resource to ensure that the CO_{2e} embodied in the energy is sufficiently less than the mass of CO₂ captured and sequestered to justify the project. Because of the daily and seasonal fluctuation in power from a renewable source, an appropriate balancing period must also be considered. To ensure that an integrated CCS project can secure power from a reliable renewable or zero-carbon energy source, PPA's will be essential. At the same time, a demonstration that resource shuffling is not occurring is reasonable to expect. We do not believe that a regulatory change is needed to permit such an approach, however, working with stakeholders, CARB should develop appropriate guidance.
6. Consider and seek ways to incentivize and approve projects that will use woody biomass from dead or deceased trees, including biomass remaining after forest fires, to generate syngas. When combined with CCS, these projects can create a negative carbon intensity syngas that can be for a variety of purposes.

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7. Provide recognition, e.g., through LCFS credits generation, or preferred approval pathways, for well qualified CCS projects that are designed to provide concurrent benefits to the surface and near surface eco-systems found within the surface projection of a CCS project. Certain well-designed CCS Projects will be able to offer significant opportunities for benefits to the overlying landscapes and eco-systems.
8. Incentives for lithium extraction projects continues to be needed and must be expanded. Through the Scoping Plan process, CARB must also recognize the critical energy storage needs the state faces. Meeting energy storage needs will help ensure that power generated by renewable and zero carbon resources can be efficiently stored for use on demand, with the commensurate benefits of maintaining and even increasing grid reliability, building resiliency and ensuring affordability as California transitions away from fossil fuels. Through the Scoping Plan, California must recognize the need and the tremendous opportunities for fully developing its lithium resources for use in meeting its carbon neutrality goals. Its sister agencies, including the California Energy Commission, must work with CARB on fair and equitable grant programs and other funding opportunities to assist the State's lithium extraction industry.
9. California must recognize that the nation's energy is fungible. Whether renewable, a zero-carbon resource, renewable natural gas, hydrogen, bio-energy, fossil fuels, or other resource, the energy inherent in or generated from such fuels should be recognized as fully fungible and eligible for indirect accounting, without regards to physical traceability. This is already the approach CARB takes to renewable natural gas and CARB should extend its approach to all fuels.

Thank you for your consideration of our comments and we do look forward to actively participating with CARB throughout the 2022 Scoping Plan process.

Best regards,

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cc: Clerk of the Board
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