Subject: Input to SB005 annotated agenda and related annexes

Introduction

1PointFive, a subsidiary of Occidental (Oxy), is dedicated to advancing leading-edge carbon management technologies and projects, including direct air capture (DAC), carbon capture, and geologic CO_2 storage.

We are pleased that the UNFCCC is working to incorporate carbon dioxide removal (CDR) within the Article 6.4 Mechanism. We appreciate the opportunity to comment to the Supervisory Body on the Information Note entitled “Removal activities under the Article 6.4 mechanism” (A6.4-SB005-AA-A09 version 0.40), specifically as it pertains to the role DAC can play in reaching global climate objectives.

Direct Air Capture Technical and Commercial Viability

Table 3 within Section 3.2 (Eligibility of activity types under the Article 6.4 mechanism) of the Information Note describes engineering-based removal activities, of which DAC is included, as “technologically and economically unproven, especially at scale”. This statement is not consistent with the current technical and commercial readiness of DAC, which is sufficiently advanced to attract public funding for the construction of large-scale DAC facilities. 1PointFive is currently constructing its first commercial DAC facility. This facility, which will have a removal capacity of up to 500,000 metric tons of CO_2 per year, is scheduled to be operational in mid-2025. Future 1PointFive facilities are planned to each have a removal capacity of 1 million metric tons of CO_2 per year (MTPA) and 1PointFive has outlined its global buildout development scenario of 100 MTPA DAC removal capacity by 2035.

In one of the clearest signals of DAC commercial viability to date, Airbus signed an advance purchase agreement with 1PointFive in 2022 for 400,000 metric tons CO_2 equivalent (CO_2e) of DAC CDR credits. Because many hard-to-abate sectors, such as aviation, have high decarbonization costs or non-abatable emissions, we believe DAC can contribute to reducing global climate mitigation costs. The Information Note lists the cost of DAC with storage at $100-300/t. According to the 2022 Goldman Sachs Carbonomics report, more than 10 gigatons (Gt) CO_2e of emissions cost over $300/t CO_2e to abate. By using DAC CDR to counterbalance these hard-to-abate residual emissions, DAC technology can lower the costs to achieving global climate objectives. The cost of DAC technology will continue to decline as the technology scales and improves. The inclusion of DAC within the Article 6.4 Mechanism could act as a catalyst for technology deployment.

Contributing to Sustainable Development

We believe DAC contributes to the objectives of the Article 6.4 mechanism, which include fostering sustainable development and delivering an overall mitigation in global emissions. As a CDR technology, DAC directly furthers the Sustainable Development Goal (SDG) of Climate Action (SDG 13). The creation of a DAC industry has the potential to generate new high-skill jobs and economic growth in the regions where DAC facilities operate and in other regions as

new supply chains emerge to support the DAC industry. There are global development opportunities for DAC, including in developing nations, and inclusion of DAC in the Article 6.4 mechanism will be critical for such development. The technology will require continued innovation to improve cost and scalability. These benefits are aligned with the Sustainable Development Goals of Decent Work and Economic Growth (SDG 8) and Industry, Innovation, and Infrastructure (SDG 9).

Existing regulatory frameworks and the proven history of geological CO_2 storage provide examples of how DAC technology can be deployed in a safe manner that is protective of the environment. As an example, Oxy has over 50 years of experience in CO_2 utilization, transport, and storage. In fact, the company has multiple Monitoring, Reporting, and Verification (MRV) plans approved by the United States Environmental Protection Agency for the permanent storage of CO_2. We believe that existing regulations such as these, and similar regulations that already exist in a number of countries, can serve as frameworks for ensuring the sustainable development of DAC technology globally.

The land use required for DAC has been raised as a concern. We agree that DAC deployment should be done in a manner that aims to minimize impact on local resources, and we believe this is achievable. One of the advantages of DAC technology is that its net CO_2 capture land efficiency is very high, enabling DAC to capture large amounts of CO_2 from the atmosphere without imposing a large footprint.

Conclusion

We appreciate that the UNFCCC recognizes the importance of CDR and support the Supervisory Body's efforts to include CDR within the Article 6.4 Mechanism. The Intergovernmental Panel on Climate Change (IPCC) recognizes that DAC has the technical capacity to remove CO_2 from the atmosphere at gigaton scale. The IPCC Sixth Assessment Report describes different pathways to achieving net emissions reductions targets that align with the Paris Agreement. Modeled pathways in the IPCC report that limit global warming to 1.5°C with no or limited overshoot have up to 310 Gt cumulative CDR from DAC with geologic CO_2 storage between the years 2020 and 2100.

We believe the funding and current construction of a 500,000 metric tons CO_2 per year capture facility demonstrates the high technical readiness level of DAC. The ability to provide additional, durable, and verifiable CDR in a manner that furthers the UN Sustainable Development Goals merits DAC's inclusion within the Article 6.4 Mechanism. Doing so will facilitate DAC technology growth as the industry seeks to meaningfully contribute to global climate objectives.