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Shaky Corporate Net-Zero Targets and Steady DAC Progress

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The model by which the SBTi (Science Based Targets initiative) validates the net-zero targets of companies, and they achieve their targets by offsets, has become shaky. The SBTi is an organization that sets standards for corporate net-zero and other targets and validates those targets. As of now, over 5,700 corporations have either set their targets against the SBTi standard or committed to do so. The Voluntary Carbon Markets Integrity Initiative (VCMI), an initiative that provides guidance on whether corporations are making appropriate use of voluntary carbon credits to achieve targets such as net-zero, requires companies, as foundation criteria, to set SBTi targets or the equivalent thereof.

In August 2023, the SBTi removed roughly 120 corporations from their list, including Amazon, for failing to set their targets as committed. The SBTi requires that corporations set their targets within 24 months of committing to do so. Amazon claims that it remains difficult to submit because ‘SBTi’s requirements submission changed and new methodologies have begun to be developed’ since Amazon committed to setting voluntary targets with the SBTi in 2020. Therefore, Amazon said, ‘in tandem to this ongoing work with SBTi, we’ll also seek to set science-based targets with other organizations and credible third-party validations.’

It was reported on August 31 that Shell confirmed it has withdrawn their goals to spend an annual \$100 million to develop carbon credit projects and to obtain an annual 120 million tons of carbon credits by 2030 from projects that sequester carbon in forests and elsewhere. Shell CEO Sawan announced this fact on October 17. It is believed that it was difficult to meet the quality and quantity requirements simultaneously for carbon credits, particularly forest credits.

The SBTi has also been criticized for the lack of transparency in its methodology and its effective monopoly on validation. On September 13, SBTi announced the separation of the division responsible for validating corporate targets, and the redesign of the process for setting standards.

However, in November it was found that four banks—Standard Chartered, HSBC, Société

Générale, and ABN Amro—had not been included in the SBTi validation process. Those banks say they will proceed under the Net-Zero Banking Alliance (NZBA) instead. The reasons given by the banks include that the new proposed standards for financial institutions are too strict, and that the transition from fossil fuels was not given appropriate consideration. The insurance company Allianz also left the SBTi. However, it has committed to the target setting methodology of the Net-Zero Asset Owners Alliance (NZAOA).

The demand for offset credits from forest related projects and Direct Air Capture (DAC) projects that remove atmospheric CO₂, is increasing, but forest related projects are being criticized for potentially overestimating the amount of CO₂ removed. In comparison, development for DAC projects is proceeding steadily and on track. However, as described in *Future Energy Landscape - Global Energy Agenda* - in March, there are bottlenecks in the downstream sectors of DAC projects in the US, namely CO₂ pipelines and storage sites, in terms of resident concerns and the limited federal and state permitting capacity.

The US Department of Energy announced on August 11 the expenditure of \$1.2 billion to advance the development of two large DAC facilities in Texas and Louisiana. These projects are the first to be selected for the Regional Direct Air Capture Hubs program under the Infrastructure Investment and Jobs Act. The selected projects include the Project Cypress in Louisiana, managed by the Battelle, Climeworks, and Heirloom companies to capture 1 million tons of CO₂ per year, and the South Texas DAC Hub, managed by the 1PointFive, Carbon Engineering, and Worley companies, to capture another 1 million tons of CO₂ per year.

On August 15, Occidental announced that its subsidiary Oxy Carbon Ventures would acquire Carbon Engineering, a DAC technology company, for \$1.1 billion. Another Occidental subsidiary, 1PointFive, is currently building the Stratos DAC plant in Texas, which plans to begin operations in mid 2025. Occidental and Carbon Engineering are also considering the construction of a DAC plant at King Ranch as part of the South Texas DAC Hub selected for a grant by the US Department of Energy.

Meanwhile, Heirloom began operating the first commercial DAC plant in the US on November 9. The plant, located in Tracy, California, will capture 1,000 tons of CO₂ per year. The captured CO₂ will be sequestered in concrete using the technology of CarbonCure, thereby avoiding the downstream bottlenecks. Heirloom was selected for the DAC Hub Program in Louisiana in August. In September, they concluded a purchase contract with Microsoft to remove 315,000 tons of CO₂.

Meanwhile, in the EU, the EU Council adopted a negotiating mandate on November 17 regarding a CO₂ removal certification framework, including DACs, while the European Parliament also adopted a position in that regard on November 21. The proposal on

regulations for CO₂ removal certification was put forward by the European Commission in November 2022. Discussions will be held between the European Parliament and the EU Council in the future.

Moving forward, the focus will be on whether institutions other than the SBTi can control some of the demand regarding corporate net-zero target setting and validation, even if they do not become mainstream. The key point in that case is whether those institutions can appropriately consider the 'transition' from fossil fuels. It is also important to continue to properly grow the DAC projects due to their merits of removing and storing CO₂ over the long term, as they are only in the initial stages.

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