

June 19, 2023

To the Supervisory Body

Equatic acknowledges the call for input to the sixth meeting of the Article 6.4 Supervisory Body.

We welcome the opportunity to participate and herewith provide input as it relates to annex 2 to SB005 meeting report..

I. Equatic and the Centrality of Carbon Removal

The Paris Agreement seeks to avoid dangerous climate change by limiting global warming to below 2°C. It is not just a target, rather the Agreement strengthens the ability of member states to mitigate the impact of anthropogenic greenhouse gas emissions. The Sixth Assessment Report establishes carbon removal as central to that mitigation effort.

Equatic is a private company with a mission to decarbonize the global economy. To do that, we remove carbon dioxide while generating carbon-negative hydrogen. Equatic uses seawater electrolysis and direct air capture together in one plant, and accurately measures carbon dioxide removal within the plant boundaries. This technology is in operation today at pilot plants in Los Angeles and Singapore. Equatic has pre-sold every metric ton of carbon dioxide it has produced.

II. Response to Part A: Definitions

As discussed ahead of the fifth meeting of the Article 6.4 Supervisory Body, it is not constructive to categorize carbon dioxide removal activities as belonging to either “Land-based” or “Engineering-based”. The variation within each category is greater than the variation between the two categories. Furthermore, forcing together a highly diverse set of CDR activities does a disservice to the scientists and communities that have dedicated their deep intellectual and social capital to advancing different technologies.

All carbon removal solutions come with risks and benefits. It is not beyond industry participants and stakeholders to understand and manage those risks and benefits. Moreover, a commonsense approach to definition, and the resultant eligibility, will *take advantage* of the intrinsic differences between technologies to build a portfolio of solutions. Variation is a good attribute of the industry today and it should be championed. If solutions are dismissed too early as ineligible, then we will repeat the mistakes of past industrial transitions: technology was locked-in and important research and innovation was abandoned.

The logo for Equatic, featuring the word "Equatic" in a bold, blue, sans-serif font.



II. Response to Part B: Monitoring & Reporting

In Section I above, Equatic stated that all carbon removal solutions come with risks and benefits. Accordingly, monitoring and reporting are of deep importance. We provide below a summary of our carbon dioxide removal operations. Monitoring and reporting is integral to these operations.

The Equatic process involves the application of a current to seawater. This splits the seawater into acid and alkaline streams, in addition to producing oxygen and hydrogen gas. Primary carbon dioxide removal occurs when the alkaline stream instantaneously precipitates calcium carbonate (CaCO_3), immobilizing carbon dioxide that was originally dissolved in seawater. Secondary carbon dioxide removal occurs when atmospheric air is contacted with the alkaline stream which leads to the formation of solvated bicarbonate ions (HCO_3^-). In the Equatic process, both primary and secondary carbon dioxide removal is durable and is permanent upward of 10,000 years (source: <https://pubs.acs.org/doi/10.1021/acsestengg.3c00004>).

Critically, Equatic directly quantifies the carbon dioxide removed within the boundaries of the decarbonization plant. For every cubic meter of seawater, Equatic removes 4.6 kilograms of carbon dioxide. This addresses the question in Part B.1. with regards to core elements for monitoring and reporting. There needs to be precise and real-time monitoring of the carbon dioxide removed, and this needs to be transparently reported. When taken together with durability, these factors underpin buyer confidence in high quality carbon dioxide removal credits.

III. Response to Part C: Accounting for Removals

Equatic draws the Supervisory Body's attention to item 17 of A6.4-SB003-A03. We seek guidance for, and inclusion of, the hydrogen gas that is generated from our carbon dioxide removal process. Alternative methods of producing "green" hydrogen typically have some embedded carbon in the process, whereas Equatic has a negative carbon intensity. The hydrogen gas that is co-produced by Equatic can be used to power the process itself, or used as a clean energy source to decarbonize industrial processes, produce electricity for the transportation sector, or create Sustainable Aviation Fuels (SAFs) and fuels for trucking.

IV. Response to Part E: Addressing Reversals

Every tonne of carbon dioxide removed by Equatic is measured in real-time and stored for tens of thousands, and potentially millions, of years. Because Equatic is an ocean-based CDR technology, there is no future ocean degassing reversal that would reduce the net amount of carbon dioxide removed from the process.

V. Response to Part G: Avoidance of other negative environmental, social impacts

Equatic's technology (i) promotes investment in energy infrastructure and clean energy technology (SDG7.A), (ii) is well suited to drive economic productivity through diversification, technology upgrading and innovation (SDG8.2), (iii)

upgrades infrastructure, such as desalination plants, to make them sustainable, with increased resource-use efficiency (SDG9.4), and (iv) advances the development, transfer, dissemination and diffusion of environmentally sound technologies between high- and low-/middle-income countries (SDG17.7).

Equatic co-produces calcium carbonate, a building material with a direct use case in climate change adaptation (for example, in the construction of levies and other interventions to lessen the impact on highly vulnerable coastal communities).

VI. Closing Remarks

Thank you for the invitation to provide input.

Equatic welcomes the opportunity to share further input upon request, and we wish the Supervisory Body all the best for the forthcoming meeting.

Yours Sincerely

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DocuSigned by:
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