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19th June 2023

Removal activities under the Article 6.4 mechanism

Octavia Carbon's response to information note

Dear Supervisory Board:

Octavia Carbon is grateful for the opportunity to provide feedback on the Article 6.4 Supervisory Body's [Information note on Removal activities under the Article 6.4 mechanism Version 04.0](#).

Background

Octavia Carbon is the Global South's first Direct Air Capture (DAC) company. We design, build and deploy technology that uniquely leverages Kenya's amazing renewable energy, geology & talent to reverse climate change and end the fossil fuel age. To this end, we employ safe and scalable solid sorbent amine chemistry to filter CO₂ from air and mineralise it in Kenya's unique geology.

To date, this has created 21 mostly highly-skilled jobs in Kenya, making us a Top 10 DAC company by staff count. After 13 months of operating, it has also attracted \$800,000 of investment into Kenya, with our intention being to invest a further \$10m in Kenya and create >100 more jobs over the next 15 months. This is in response to strong global demand for the high-quality carbon credits that we will produce. By next year, Kenya will host the world's 2nd largest DAC + CO₂ Storage plant in the world, at >1,000 tCO₂/yr capacity, called 'Wangari 1' after Dr. Wangari Maathai, a Kenyan environmental icon. In this we will be aided by our geological storage partner Cella Mineral Storage ('Cella'), who will safely turn our CO₂ into carbonate minerals underground, permanently storing this CO₂, and so providing a new way of truly offsetting historic and present-day fossil CO₂ emissions. Being co-founded by world-leading geologist Dr. Claire Nelson, Cella will apply the strictest geochemical and geophysical monitoring, reporting & verification (MRV) methods to ensure that CO₂ is indeed stored durably underground. What is more, an external lifecycle [emissions] assessment conducted by global expert Grant Faber showed that our intended project has top-of-class 96% capture efficiency. This means that <40kgs of CO₂ are emitted for every gross ton of CO₂ we remove, testament to Kenya's forward-looking investments in developing clean geothermal electricity and its unique fitness for being a global hub for DAC. Overall, we will apply the strictest MRV criteria to our project by working under Puro.Earth's ICROA-certified standard for geologically stored carbon. As such, we are likely to soon be the world's first DAC company certified under an ICROA-approved MRV methodology.

Our local community engagement in a pastoralist Maasai village has shown overwhelming support for engineered carbon removal. As a region parched by years of climate change induced drought, massive-scale afforestation has clear limits in this community's land. The community we engaged was excited about the prospect about fighting climate change via carbon removal nonetheless, and they were especially proud that a Kenyan company was leading the charge in this global fight. The idea that the community's young people, who had long since fled as climate refugees to nearby cities, could have quality livelihoods and be trained as technicians for such a Kenyan company, filled them with pride and optimism. They wholeheartedly welcomed our plans for deploying DAC in their community, and had an advanced

understanding of what this would entail. We plan to be back in this and other communities soon, bringing actual Kenyan-designed and -built DAC machines to further explain the technology's workings.

Kenya's policymakers also openly welcome our project. Kenya's climate change envoy, Dr. Ali Mohammed, acts as an advisor to Octavia Carbon. When we were a major feature in the Jun 17th edition of the Economist magazine, Dr. Mohammed excitedly retweeted this development and Kenya's leadership in this space. Kenya's President, the First Lady, the Minister of Energy, the Minister of Environment and other high-level officials have all publicly signalled their support for making Kenya a global leader in the emerging DAC industry. DAC has the potential to productively use the 1,000 MWh of geothermal capacity that is currently curbed from use every day for having no productive offtake. DAC can make geothermal and other renewable energy projects in the region vastly more bankable, and so help the Kenyan government achieve its ambition of creating a 100% renewable grid by 2030, while cross-subsidising grid investments that can lead to universal energy access in Kenya and beyond.

Our public target is to be the largest DAC company in the world by 2025, using the Global South's ingenuity and Kenya's unique resources to develop this crucial climate technology, as called for by the IPCC. By 2030, we seek to deploy >10 million tons of annual DAC+Storage capacity in Kenya, and to export these high-tech machines around the world. By using Kenya's abundant geothermal heat, we are able to scale this technology to a uniquely vast scale, providing much-needed net zero options for hard-to-abate sectors.

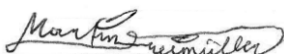
Our objections

- **We object in the strongest terms to the notion that engineered CDR solutions are inconsistent with sustainable development goals for the Global South.** We hope that our context above has shown very clearly how we contribute directly not only to SDG 13 (Climate Action), but also to SDG 7 (Energy Access), SDG 8 (Decent Work), SDG 9 (Innovation & Infrastructure), SDG 10 (Reduced Inequalities), SDG 12 (Responsible Consumption & Production), and SDG 17 (Partnerships for the Goals). It is plainly preposterous and demeaning to deny the Global South the ability to innovate responsibly in the development and deployment of such technologies. Our project in the Kenyan Rift Valley is plainly aligned with sustainable development from the most grassroots community level up to the highest levels of government.
- **We object to the notion that engineered CDR methods are unproven or unsafe.** This would seem to be inconsistent with current IPCC accounting guidance and acknowledgement of the need for engineered CDR at billion-ton scale in coming decades. It misrepresents the benefits of long-term storage and its foreseen role according to scientific assessments. Direct Air Capture has been proven as economically feasible and safe in various locations around the world, including in our existing 4 at-scale Direct Air Capture machines that we have developed and built in Kenya.

We trust that our response can be of use to the Supervisory Body as it moves forward with its work. Particularly, we hope that the strong objection of our 21 young Kenyan staff and myriad Kenyan stakeholders will serve to demonstrate how firmly our work does indeed contribute to sustainable development in the Global South.

Sincerely,

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