



Cornwall Carbon Scrutiny &lt;cornwallcarbonscrutiny@gmail.com&gt;

## RE: UNFCCC Article 6.4: Input from Cornwall Carbon Scrutiny Group

2 messages

**Cornwall Carbon Scrutiny** <cornwallcarbonscrutiny@gmail.com>  
To: "psiyag@unfccc.int" <psiyag@unfccc.int>

Sun, Jun 18, 2023 at 12:20 PM

We are an informal group of citizens in a rural, coastal community, who have come together to scrutinise carbon dioxide removal (CDR) activities in our region following a proposal by [Planetary Technologies](#) (PT) to conduct an OAE geo-engineering programme in St Ives Bay. We would be very grateful if you would consider the points we have raised because we are directly experiencing the impacts of climate change, as well as the local impact of carbon removal technologies and carbon markets in our community.

We are engaged in an open and transparent dialogue with PT and the UK Environment Agency (EA) to try and ensure a rigorous approach is taken towards understanding the science and potential positive/negative impacts of the PT Cornwall CDR project and others that may impact our region.

We have many concerns about the potential impact of the PT project on ocean ecosystems and the role that unregulated carbon markets are having in driving marine geo-engineering projects. However, as requested, this letter reports our concerns on monitoring, reporting/accounting for carbon removals and carbon markets.

Our concerns and recommendations are summarised below.

### Moral Hazard/Precautionary Principle

1. To avoid moral hazard, emission reduction credits for offsetting must only be issued for residual unavoidable emissions following achievement of drastic emission reductions (90%) presented as part of a credible net zero/real zero decarbonisation strategy.
2. CDR technologies must not be used to generate carbon removal credits at all currently, due to the risk of this promoting excessive, unregulated commercial activity in the oceans, testing unproven technologies.
3. Carbon accounting for emission reductions and removals must be evidenced through transparent, independently verifiable standards and there is a need for guidance on their use.
4. Strong, consistent regulatory effort is required at national and global levels to control the carbon market to ensure it drives measurable, high impact climate mitigation now and does not distract, undermine or channel finance away from effective nature-based solutions, emission reductions and habitat restoration we know will work (but may have no commercial appeal), into research ventures exploring unproven technologies.
5. To ensure integrity, a non-profit driven mechanism must be developed for directing finance towards solutions that are ready to implement and quantified such as those identified and fully researched by [Project Drawdown](#). For example, four land sink solutions in Drawdown's top 20 have the potential to reduce/sequester between 122 and 190GtCO<sub>2</sub>e by 2050: Tropical Forest Restoration (54-85), Silvopasture (27-42), Tree Plantations on Degraded Land (22-35), Temperate Forest Restoration (19-28)<sup>[1]</sup>. These also have multiple biodiversity co-benefits.
6. Due to lack of understanding and uncertainty of risks and verification of ocean CDR, projects must not commence without prior local consent.
7. In a statement on [CDR: Nature-based and technological solutions, the European Parliament \(2021\)](#) stated that nature-based solutions stand out as more cost effective and viable in the short run, while some technological alternatives have potential to become more relevant later this century<sup>[2]</sup>.
8. We support the formation of a coordinated ethical framework to evaluate ocean climate actions prior to any deployment of geo-engineering in the ocean or on land.
9. In terms of contribution to the global stocktake, we think the priorities are to protect blue carbon ecosystems and their climate services, through natural enhancement (e.g., seagrass, kelp, saltmarsh) amplify ocean-based renewable energy and harmonise all ocean with climate goals.

### Validation

- Project validation must be done before projects are allowed to enter a GHG program (i.e., before they are sold as certified emission reduction credits).
- Validation must follow fit-for-purpose standards, include eligibility criteria such as integrity of baseline data, reasonableness of proposed quantification methodologies, monitoring protocols and a schedule of guard rails and co-benefits such as biodiversity protection, biodiversity enhancement and improved

community resilience based on thorough pre-program engagement, baseline monitoring, research and consultation.

### Verification

- We strongly recommend that adherence to ISO-14064-3 or a newly developed standard becomes a mandatory requirement for verification of geo-engineering carbon removals.
- We urge that full carbon reporting across the value chain (including scope 3) and/or conformity to science-based targets (SBTi) is a mandatory prerequisite to the purchase of carbon offsets.

### Data Integrity/Theoretical Monitoring

- We do not have confidence that internally derived monitoring, reporting and verification protocols based on theoretical modelling, can provide the level of assurance needed to evaluate a GHG assertion. If there is no possibility of gathering measurements in the field/ocean, this raises concerns about data integrity and the ability to confirm or verify permanence of removal.
- Internally derived protocols also raise concerns about independence which is a key principle of verification. Unless there is comprehensive, independent peer review and scientific consensus, we remain very sceptical about accepting a modelling approach.
- We would like to see a consistent framework to ensure the quality (accuracy, completeness, consistency and relevance) and availability (accessibility, timeliness, and format) of data used for carbon accounting removals.

Further relevant information.

### Carbon Market

PT have issued carbon removal credits to Shopify in return for substantial project funding. PT have also received £250,000 from the UK government and a £1 million prize from Elon Musk. PT have acknowledged the need for immediate and rapid emission reductions on their website and are clearly aware of the moral conflict that arises if a company adopts carbon removal offsets before or instead of comprehensive carbon reduction measures, to distract from reduction efforts, or to support corporate claims of carbon neutrality.

However, the moral hazard issue is highlighted through scrutiny of [Shopify's 2022 Climate Report](#). This refers to a mission to drive an expanding and profitable market for carbon removal. The Shopify business model sustains expanding consumerism via merchants and therefore sustains growing emissions while fossil fuels remain in the value chain. Details from the Shopify Climate Report:

- Two categories of scope 3 emissions are included but there is no quantification of upstream or downstream emissions across the value chain.
- Shopify claim to be a carbon neutral company with carbon neutral operations.
- Their carbon footprint increased by 313% from 2021 to 2022.
- Natural gas is used in buildings throughout the supply chain (buildings, ports, warehouses, merchant spaces).
- There is no evidence of year-on-year reduction efforts on business travel emissions which comprise 74% of the 2022 footprint.
- Gross operational carbon emissions intensity tCO<sub>2</sub>e/revenue increased by 240% (2021-2022).
- Gross operational emissions intensity tCO<sub>2</sub>e/employee increased by 256% (2021-2022)<sup>[3]</sup>.

In 2022 Shopify founded Frontier, an alliance of US corporations including Meta, Alphabet, Stripe and McKinsey Sustainability. These companies have made an '*advance market commitment to purchase \$925M of 'permanent of carbon removal' by 2030*'<sup>[4]</sup>. They aim to accelerate the development of permanent carbon removal technologies by '*guaranteeing future demand*'. This demonstrates the power of corporate finance but also the urgent need for regulation of processes and carbon markets to prevent moral hazard and unintended consequences.

The Commercialisation section of the Shopify Climate Report states<sup>[5]</sup>: 'At the end of 2022, only 27.3% of the durable carbon removal suppliers in our portfolio had some form of public MRV plan, largely inflated by those using Puro's biochar carbon removal methodology. We need existing standards to step up, or new third parties to step in to create methodologies for durable carbon removal pathways and fill other roles like verification'.

Therefore, Shopify themselves are calling for better standards and methodologies in their climate report.

**The whole concept of a carbon market is fundamentally flawed and counterintuitive to the precautionary principle, if it is driven by generating profit for commercial ventures rather than climate mitigation as the primary goal.**

## Theoretical modelling

We are unconvinced that the theoretical approach in the Planetary MRV is a sufficiently robust approach to provide verification that real and measurable carbon dioxide removals have been achieved. We are waiting for further scientific scrutiny, support and comment on this question.

## Validation

Project validation should be done before projects are allowed to enter a GHG program. We are not aware this has happened for the PT project.

## Verification

We are concerned to know how PT will ensure the quality (accuracy, completeness, consistency and relevance) and availability (accessibility, timeliness, and format) of the data used for their carbon accounting.

The PT MRV does not appear to follow any internationally recognised standard such as ISO 14064-2 but is instead proposing an internally derived theoretical model that has not (so far as we are aware) attracted external scientific scrutiny. The stoichiometry is straightforward, but the ability to measure the complex geochemical and biological interactions that may take place in the wider ocean following release of alkalinity, is complex and by PT's own admission, not measurable.

Poor data quality or availability can lead to errors, uncertainties, or biases in the carbon sequestration results. The inability to collect field data for the PT project, due to the dilution factor of MH in the ocean, is seen as a threat to verification, risk management and the ability to confirm **permanence** of carbon removal.

ISO-14064-3 specifies precise requirements of what must be reported in a validation or verification statement and it is currently difficult to see how PT will meet any of these criteria or propose viable alternative measurements.

To summarise, we support an open-minded approach to climate solutions but expect project methodology to be independently validated prior to commencement, impacts to be measurable in the field so that verification can take place and, most important of all, potential harm to fragile ecosystems to be assessed following the precautionary principle. We are also aware that there are alternative ways to sequester the amount of carbon that PT have theoretically proposed, which we believe are more effective, lower risk and lower environmental impact with multiple co-benefits for biodiversity and society.

With gratitude for your time and consideration,

Jennie Wason

**On behalf of Cornwall Carbon Scrutiny Group**

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[1] Project Drawdown <https://drawdown.org/solutions/table-of-solutions> [Accessed online 12.06.2023]

[2] [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_BRI\(2021\)689336](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)689336) [Accessed online 17.06.2023]

[3] <https://cdn.shopify.com/static/sustainability/climate-report/Shopify%202022%20Climate%20Report.pdf> Shopify Climate Report, 2022 p15 Energy and emissions. [Accessed 16.06.2023]

[4] [Shopify Climate Report 2022](#)

[5] <https://cdn.shopify.com/static/sustainability/climate-report/Shopify%202022%20Climate%20Report.pdf>

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**Cornwall Carbon Scrutiny** <cornwallcarbonscrutiny@gmail.com>  
Draft

Mon, Jul 17, 2023 at 2:33 PM

**RE: Structured Public Consultation - Removal Activities - UNFCCC 6.4 Mechanism**

Dear Supervisory Body - the letter below (and attached) was sent from Cornwall Carbon Scrutiny Group to UNFCCC on 18/06/23 (within the consultation period). Please could you include our feedback and give our concerns your

17/07/2023, 14:46

Gmail - RE: UNFCCC Article 6.4: Input from Cornwall Carbon Scrutiny Group

consideration. Apologies if we sent our letter to the wrong email address.

Thank you.

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