

**Submission by 44.01 to the Call for input 2023 - Structured public consultation: Requirements for the development and assessment of mechanism methodologies.**

44.01 welcomes the opportunity to provide comments to the Article 6.4 mechanism Supervisory Body with respect to non-permanence and reversals aspects of the mechanism methodologies under development and assessment.

**44.01 - the solution we propose**

In order to achieve the ambitious goals of keeping global temperature below agreed thresholds, it is no longer sufficient to simply reduce greenhouse gas emissions. Instead, it is clear that we need to actively remove CO<sub>2</sub> that has already been released into the atmosphere. A major problem is how to safely store this CO<sub>2</sub> in a way that does not produce additional environmental damage and does not get re-released back into the atmosphere.

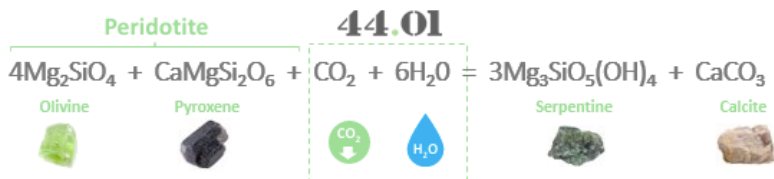
- The technology behind 44.01 (where 44.01 refers to the molecular mass of CO<sub>2</sub>) consists of converting captured CO<sub>2</sub> into inert rocks in geological reservoirs through **carbon mineralization**.
- Our innovative method makes use of a naturally occurring reaction between peridotite (a rock found in the Earth’s crust) and CO<sub>2</sub>, which results in the formation of minerals that remain **stable for millions of years**.
- Our technology provides an **easier, scalable, safe way to permanently eliminate potentially the entire accumulated anthropogenic CO<sub>2</sub> emissions**.

**Peridotite – Our Carbon Sink**



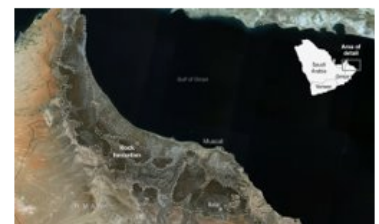
Peridotite holds the key to permanent removal of CO<sub>2</sub> via mineralisation

- Common ultramafic mantle rock which reacts with CO<sub>2</sub> to form inert and stable carbonate rocks through mineralisation, a natural weathering process.



- Mineralisation **eliminates CO<sub>2</sub>** with no leakage risks and limited requirement for long-term monitoring and insurance. It is a safe, cost-effective permanent solution.
- Peridotite has a **large capacity for CO<sub>2</sub>** - mineralising 500-600kg CO<sub>2</sub> per ton of rock.
- We launched in Oman, which has the largest and best exposed peridotite mass in the world, with the capacity to mineralise **~50 trillion tons of CO<sub>2</sub>**.
- Peridotite is found all over the world, including in **North and South America, Europe, UAE, Japan and Australia**.

We aim to mineralise 1 billion tonnes of CO<sub>2</sub> by 2040



#### 44.01 comments related to non permanence and reversals:

1) 44.01 proposes to clearly differentiate between geological storage methods and elimination of CO<sub>2</sub> through subsurface mineralisation across the documents, and their future iterations, serving as input into development of methodologies:

For example Re- Information note Removal activities under the Article 6.4 mechanism, 3.1. Taxonomy of removal activities:

- para 37 b) “Storage in geological reservoirs, or storage *elimination* through mineralization of CO<sub>2</sub> in subsurface rocks.”
- para 38 Table 2 “DACCS activity with the removed carbon stored *eliminated* through subsurface mineralization in rocks”

2) The Information note Removal activities under the Article 6.4 mechanism outlines requirements appropriate for the conventional method of CO<sub>2</sub> storage in geological formations, such as “*pooled buffer of credits backed up by host Party guarantee, or pooled buffer of credits backed up by commercial insurance*”, which are not appropriate for CO<sub>2</sub> elimination via mineralization.

We recommend that the methodologies take into account the specific attributes of mineralization and separates the requirements appropriate for mineralisation as opposed to conventional storage in geological reservoirs. In this respect, the independently validated methodology (such as the one developed by Carbfix) or methodologies currently under development by VCS should serve as input to Art 6.4M in particular with respect to the formulation of liability requirements of activity participants.

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