



Future50

GHG Carbon Capture and Storage (GHG CCS)

Geo-Engineering



44.01

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<https://4401.earth/>

#ClimateTech
#NatureBasedSolutions

Highlights

44.01 won the **2022 Earthshot Prize 2022**³⁵² and the **Milestone Award in the 2022 XPRIZE Carbon Removal competition**.³⁵³ It is also a **HUB71 alumni**³⁵⁴ and participated in the **Unreasonable Fellowship**.³⁵⁵

44.01 is working with **ADNOC** on the **first peridotite mineralisation project in the UAE**,³⁵⁶ which it claims is also the first-ever to involve injecting CO2 using seawater. In 2024, it is slated to launch the world's largest peridotite mineralisation project in the Hajar mountains in Oman.³⁵⁷

44.01 reports having raised US\$5 million to date, including almost US\$2 million in cash awards along with equity investment.

Strategic alliances

- Heavy Industrial Companies
- Carbon Credit Traders
- Government
- Investors

List impact technologies

Carbon Capture, Usage and Storage

Headquarters:

Oman

Middle East operational countries:

United Arab Emirates

Summary

44.01 eliminates CO2 by turning it into rock.³⁴⁹ The company's technology works to **accelerate the natural process of CO2 mineralisation** to remove captured CO2 permanently in less than twelve months. To do this, 44.01 injects carbonated fluid into ultramafic rock formations deep underground, where they can adjust variables like temperature and pressure.

Impacts

Carbon removal technologies, such as **mineralisation** help decarbonise vital industries and ultimately return the atmosphere to sustainable levels of CO2.³⁵⁰ For every tonne of CO2 removed, 44.01 creates a valuable **carbon credit that can be traded or 'retired' to abate emissions**.

44.01 notes that its technology is opening up new economic opportunities in countries like Oman and the UAE that have an abundance of appropriate rocks, and also providing new employment opportunities as the region goes through energy transition.³⁵¹

