

EGU21-3373

<https://doi.org/10.5194/egusphere-egu21-3373>

EGU General Assembly 2021

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## **Disposing of CO<sub>2</sub> in basaltic rocks: opportunities to upscale storage and co-locate sites with offshore renewable (wind) power**

**David Goldberg**

Columbia University, Lamont Doherty Earth Observatory, Marine and Large Programs, Palisades, United States of America (goldberg@ldeo.columbia.edu)

Continued fossil fuel burning is likely to increase CO<sub>2</sub> concentrations in the atmosphere to previously unknown levels and emissions will continue to outpace uptake, unless limiting action is taken. This paper presents new approaches to mitigate emissions and drawdown atmospheric CO<sub>2</sub>, that is, new combinations of developing and existing technologies in offshore settings. We consider the permanent and safe geological storage of carbon dioxide (CCS) through in situ carbon mineralization and the potential for CO<sub>2</sub> uptake and disposal in offshore basalt formations. The CCS concept in general aims to separate CO<sub>2</sub> from industrial emissions, and/or directly remove it from the air, and permanently store it underground. Integrating these technologies with renewable (wind) energy in offshore settings may offer a scalable, long-term climate mitigation choice that warrants early consideration. Current studies of co-located opportunities and new offshore demonstration projects are considered.