CORPORATE CARBON

Solar-Powered Direct Air Capture

February 2022 Update

Australian Government is taking a technology-led approach to mitigation

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A$50M Carbon Capture Usage and Storage Development Fund

Part of a A$18billion technology roadmap over the next 10 years to drive investment in low emissions technologies

Applications from 71 projects representing A$400million

Grantee	Purpose	Amount	Location
Santos	CCS	$15M	SA
Mineral Carbonation	Materials	$14.6M	NSW
Corporate Carbon	DACCS	$4M	SA
EDL	CCU – concrete	$9M	Various
Boral	CCU – concrete	$2.4M	NSW

Corporate Carbon Project to demonstrate DACCS

First in the world DAC to geological storage demonstration project

A$4M to be matched with at least A$4M of other funding from CC and partners

DAC Project Update

Since being awarded the grant, Corporate Carbon has:

- Completed a global technology review and formed a strategic partnership with an Australian technology supplier, Southern Green Gas, focusing on solar-powered Direct Air Capture
- Commenced discussions with Santos in relation to commercial arrangements and siting options at Moomba
- Formed working relationships with a number of potential hubs that could support DAC demonstration and/or commercial projects
- Entered discussions with potential offtakers of the Carbon Removal Service
- Completed a Business Plan and Feasibility Report

In 2022, we aim to:

- Make FID on world first solar-powered DAC to geological sequestration project, at 1tpd scale, with contracted Carbon Removal as the revenue stream
- Secure a number of strategic partnerships with carbon capture and storage hubs
- Develop a pipeline of potential commercial projects, from 1,000 to 5,000tpa scale
- Raise additional funding (equity of project financing) to support the roll-out

DAC Technology Review

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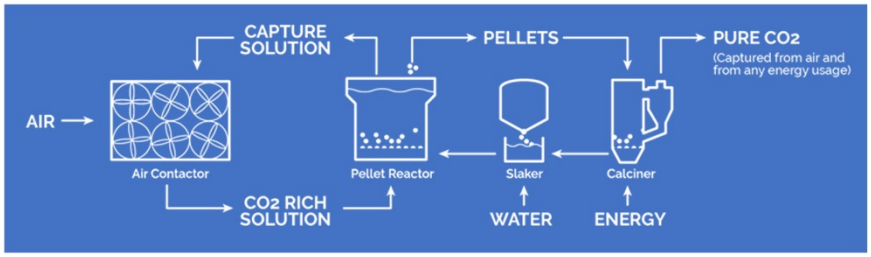
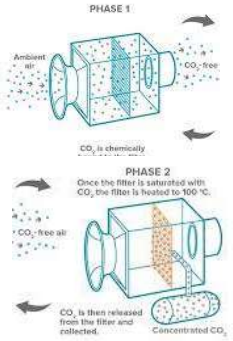
Carbon Engineering (Canada)

Proven at 3tpd, scaling to 1 Mtpa, high temp aqueous



Climeworks (Europe)

World's first project: 4ktpa in Iceland, solid sorbent

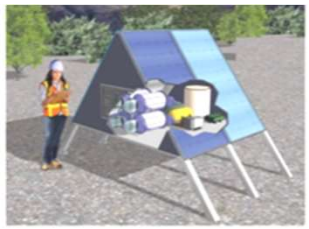


Global Thermostat (US)

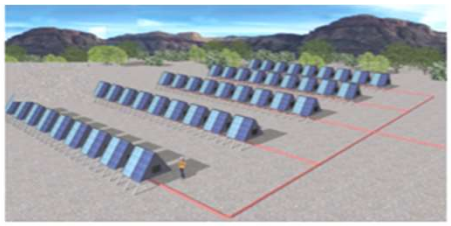
Proven at 2ktpa, scaling to 5 ktpa, solid sorbent

Southern Green Gas (Australia)

Solid sorbent (MOF), modular, solar-powered



Solar powered DAC module
Captures 1 to 2 tn pa CO_2



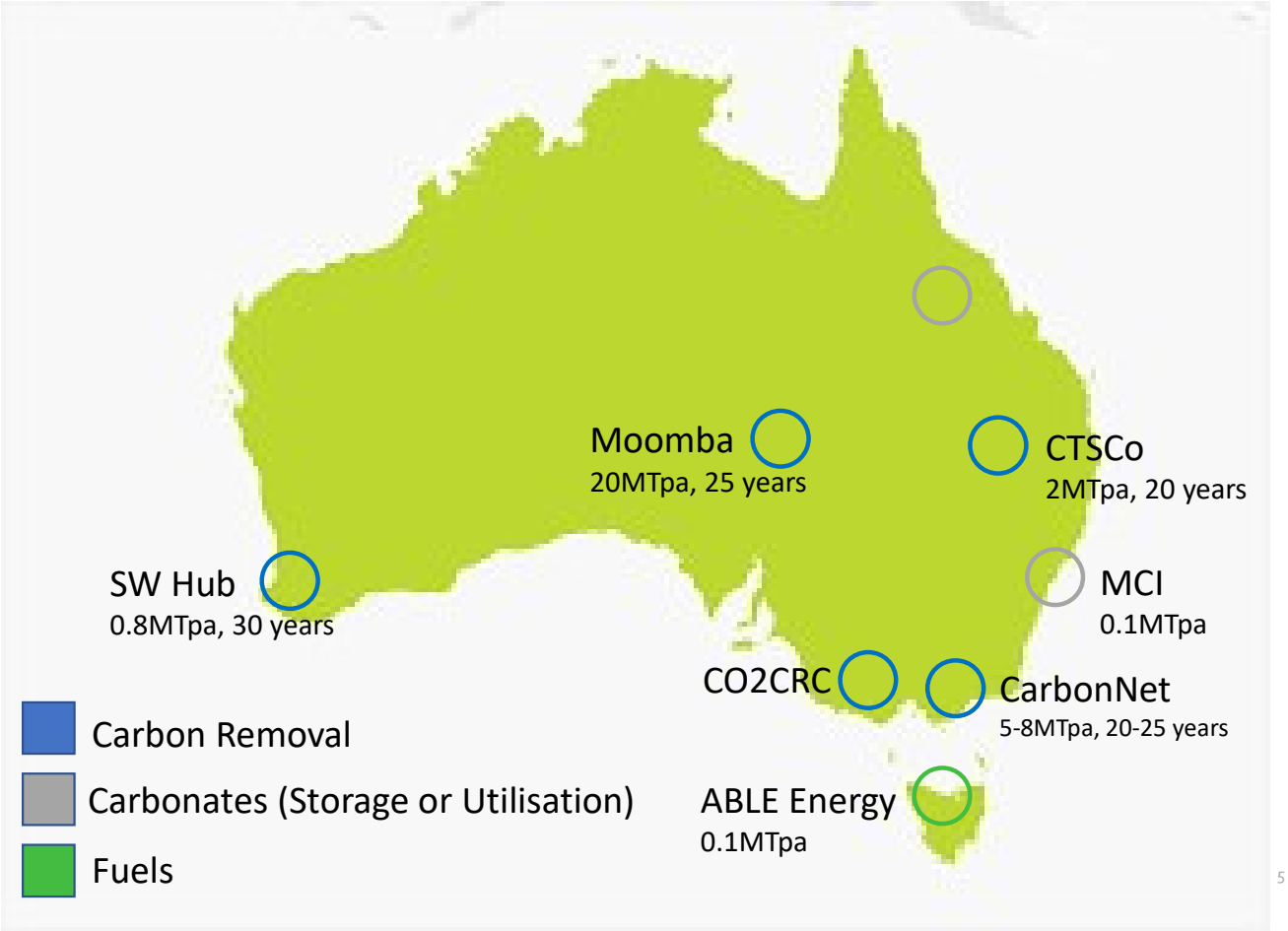
Sustainable CO_2 Capture Hub
Comprised of thousands of DAC modules

Carbon Capture Hubs for DAC

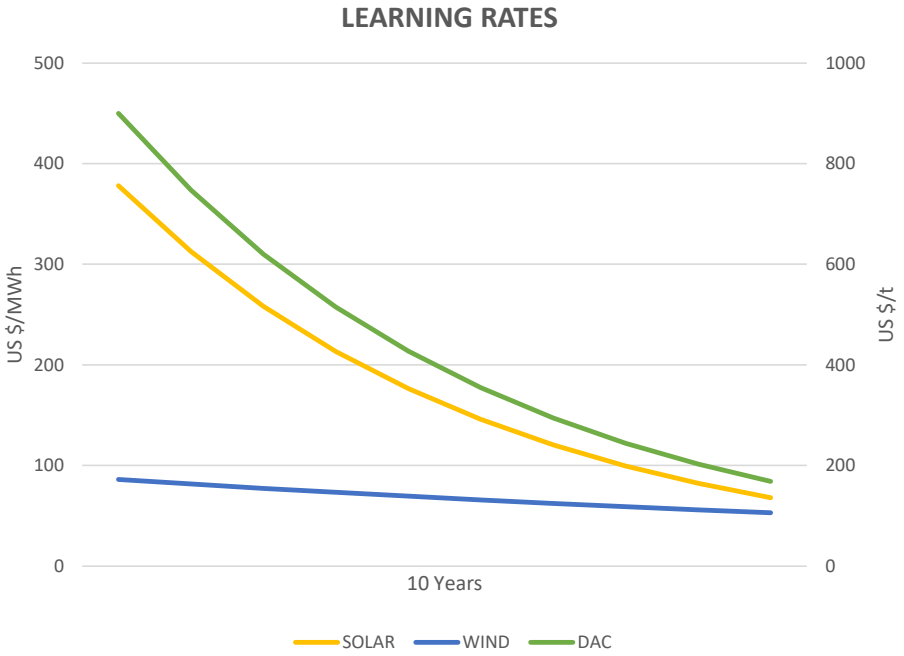
Australia is fortunate to be blessed with a strong solar resource and multiple sites capable of sequestration or carbonation.

Corporate Carbon is forming relationships with strategic partners and sites to underpin a sustainable DAC -> CCUS strategy

Need to optimise to lowest cost of compression, transport & storage, based on available solar energy supply



Technology Development to <$100/t



Source:

1. *Renewables, LHS: https://ourworldindata.org/cheap-renewables-growth*
2. *Direct Air Capture, RHS: Corporate Carbon modelling*
3. *Refer Lackner et al 2021 https://pubs.acs.org/doi/abs/10.1021/acs.iecr.0c04839*

COST REDUCTIONS WILL COME FROM:

1. LARGE SCALE MODULE MANUFACTURE

- Estimate 11-fold reduction in module cost from the 100-module run to the 10,000-module run
- Further reductions to 100,000 modules and beyond

2. IMPROVEMENTS IN MOF:

- energy efficiency, leading to lower energy use per tonne of CO_2 captured
- hydrophobicity; and
- longevity

PROPOSED PROJECT PIPELINE		
Moomba 1tpd	2023	330tpa
Second Project	2024	670tpa (1,000tpa combined)
Third Project	2025	5,000tpa
TBD	2026	20,000tpa
TBD	2027	100,000tpa
TBD	Prior to 2030	1,000,000tpa

CORPORATE CARBON

Creating new solutions for carbon market participation

More information and enquiries

Julian Turecek
Executive Director
+614 0825 6848
julien@corporatecarbon.com.au

Corporate Carbon Group Pty Ltd ABN 30 637 262 189

Suite 4, Level 16, 25 Bligh Street, Sydney NSW 2000
AFS Licence No: 430199 | 1300 227 206
info@corporatecarbon.com.au | www.corporatecarbon.com.au