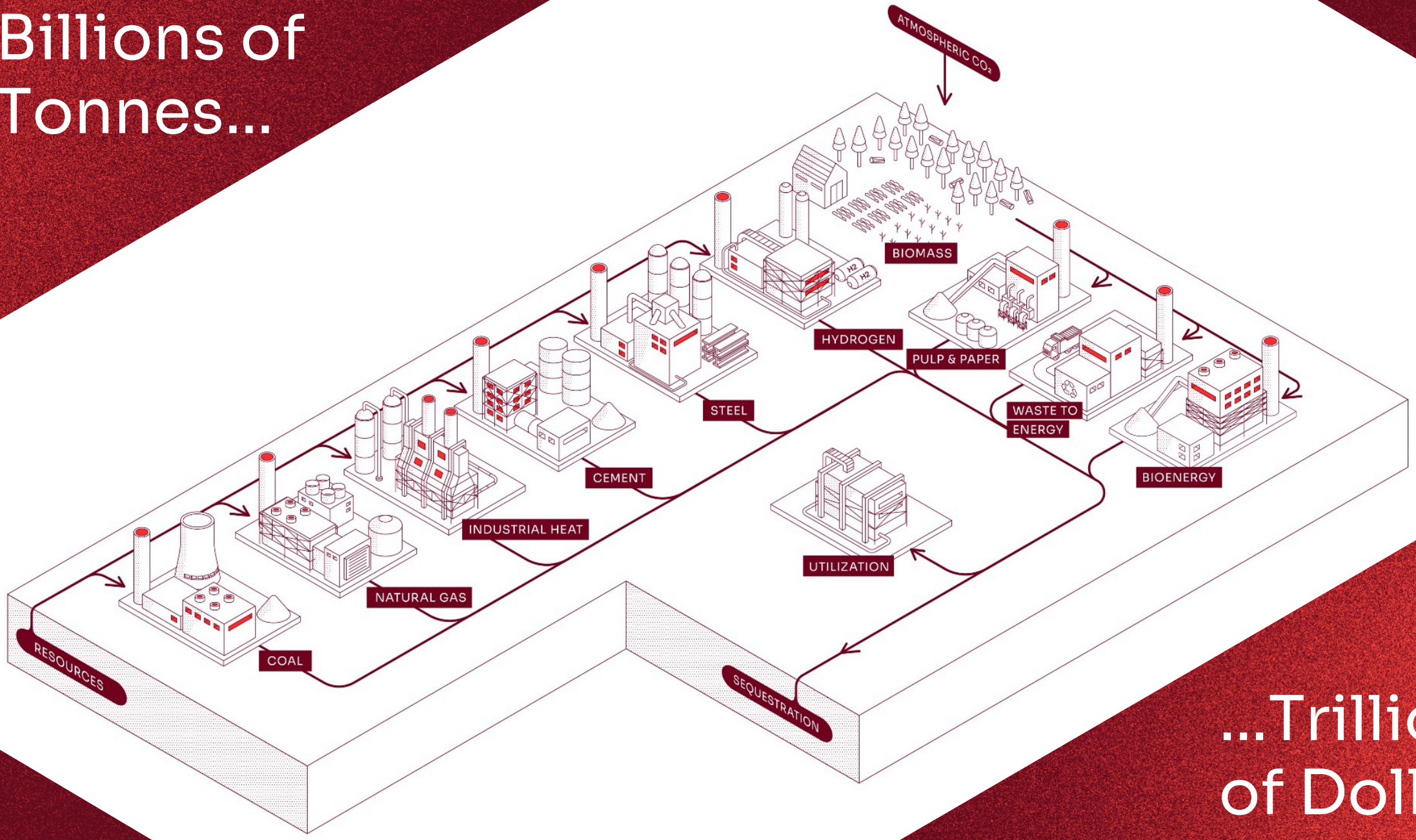
The material solution to carbon capture

Mantel

ENI NEXT DAY
June 19, 2025

Billions of Tonnes...



...Trillions of Dollars

Mantel's system captures CO_2 and recovers energy as steam

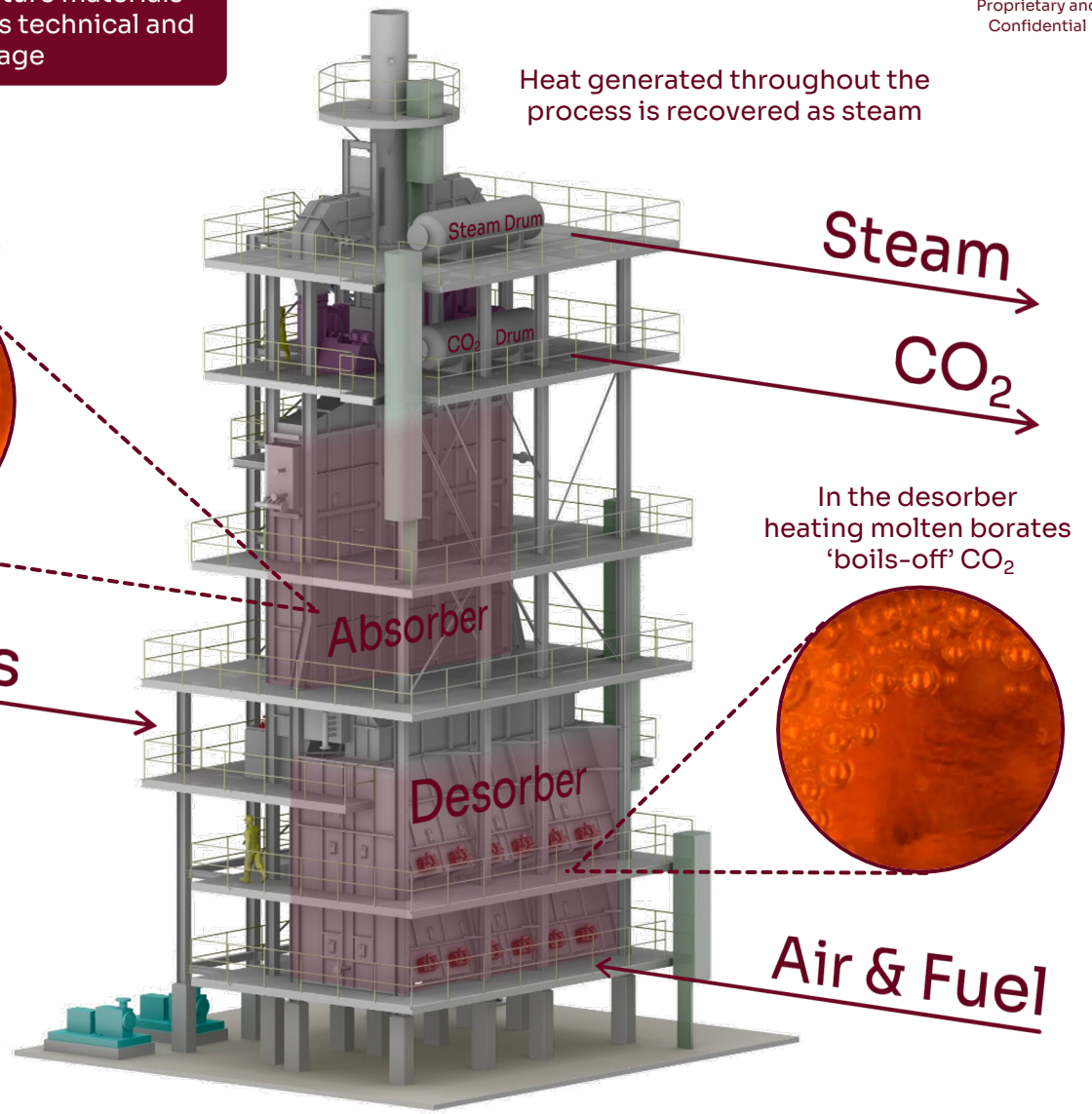
Molten Borates

- Only high-temperature liquid-phase carbon capture materials
- Source of Mantel's technical and economic advantage

Clean Flue Gas

Heat generated throughout the process is recovered as steam

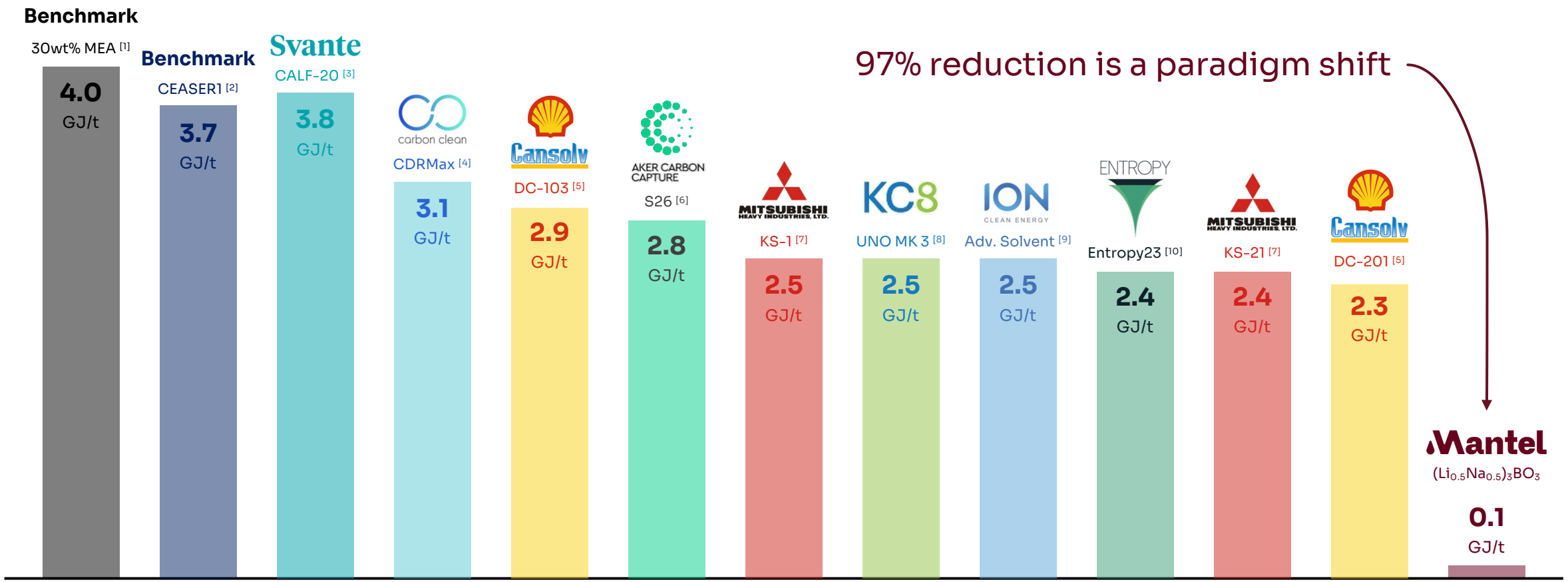
In the absorber molten borates rapidly remove CO_2



In the desorber heating molten borates 'boils-off' CO_2

Eliminating the thermal energy requirement for CO_2 capture changes everything

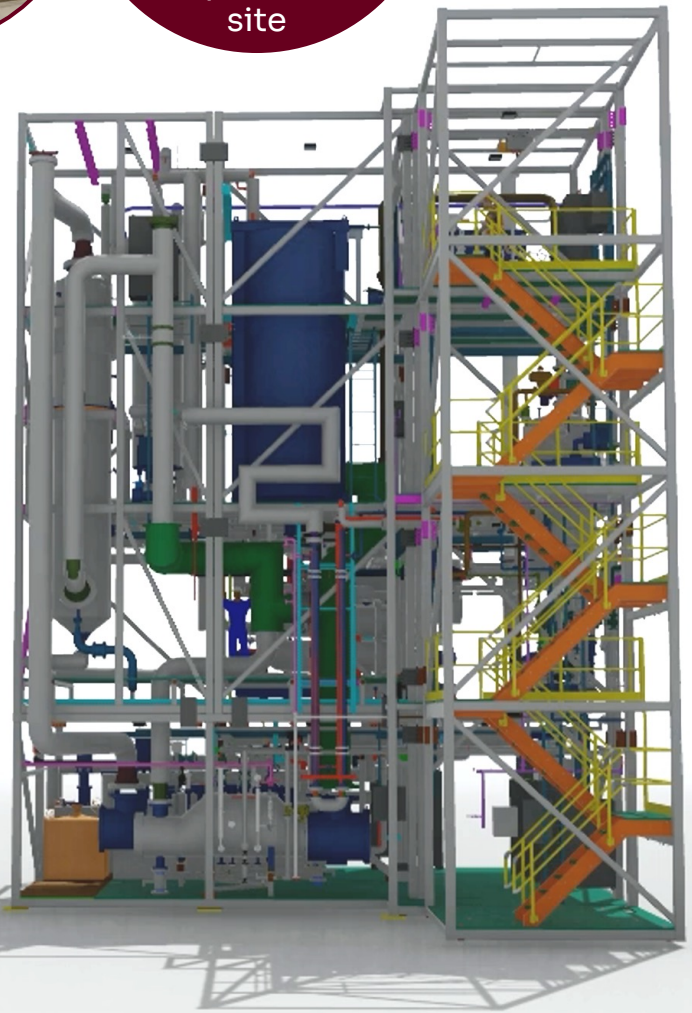
Mantel Capture, Inc
Proprietary and Confidential



Notes: Net thermal energy requirements GJ per metric tonne of CO_2 captured, generally specific reboiler duty. [1] Brigman et al., 2014. Energy Procedia, 63, 6012 – 6022. [2] DECARBit, 2011. EBTF Report D1.4.3. [3] Freeman, 2021. DOE-NETL Presentation DE-FE0031944. [4] Bumb et al., 2017. Energy Procedia, 114, 1087 – 1099. [5] Cansolv, 2017. DOE Report. S0002-RDC201-D3-NCCC. [6] Gorset et al., 2014. Energy Procedia, 63, 6267 – 6280. [7] Iiljima et al., 2011. MHI Technical Review, 48. [8] Global CCS Institute, 2023. State of the Art CCS Technologies. [9] Brown et al., 2018. DOE-NETL DOE-ION-FE0013303. [10] Entropy, 2023. Corporate Presentation.

Demonstration project in construction – sited at paper mill in Quebec

Gas fired boiler with CO_2 capture decarbonizes **5%** of partner's site



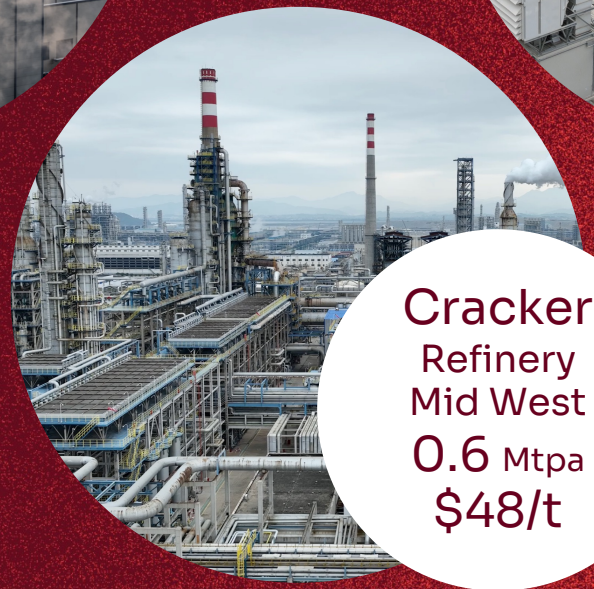
74 projects in Mantel's commercial pipeline across a range of industries, including...

OTSGs
Oil & Gas
Alberta
2.8 Mtpa
$39/t

Cogen
Chemicals
Gulf Coast
0.3 Mtpa
$55/t

CCGT
Power Gen
Europe
1.9 Mtpa
$52/t

BECCS
Pulp & Paper
Canada
0.5 Mtpa
$47/t



Cracker
Refinery
Mid West
0.6 Mtpa
$48/t

...and many more

Notes: Actual feasibility studies; capacity in Mtpa (million tonnes CO_2 captured per annum); cost of capture and compression in USD (excludes transport and storage)

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