

# Svante

## USEA Consensus Webinar

Carbon Capture in Colorado and the Southern Ute Indian Reservation

Building a CO<sub>2</sub> Marketplace in Colorado

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Claude Letourneau, President & CEO



# About us

We offer companies in hard-to-abate industries a commercially viable way to capture CO<sub>2</sub> with a Net-Zero emissions solution.



Since 2007



Over 100 employees



Vancouver, Canada

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Svante has now attracted more than **\$175 million USD** in total funding since it was founded in 2007 to develop and commercialize its breakthrough solid sorbent technology at half the capital cost of traditional engineered solutions.

# Our Investors

OGC CLIMATE INVESTMENTS  
OIL AND GAS CLIMATE INITIATIVE

Chevron

Delek US

cenovus ENERGY

SUNCOR ENERGY

*Energy Producers (37%)*

bdc

EDC  
Export Development Canada  
Exportation et développement Canada

*Government of Canada (12%)*

TEMASEK HOLDINGS

CHART

CARBON DIRECT

MITSUI & CO.

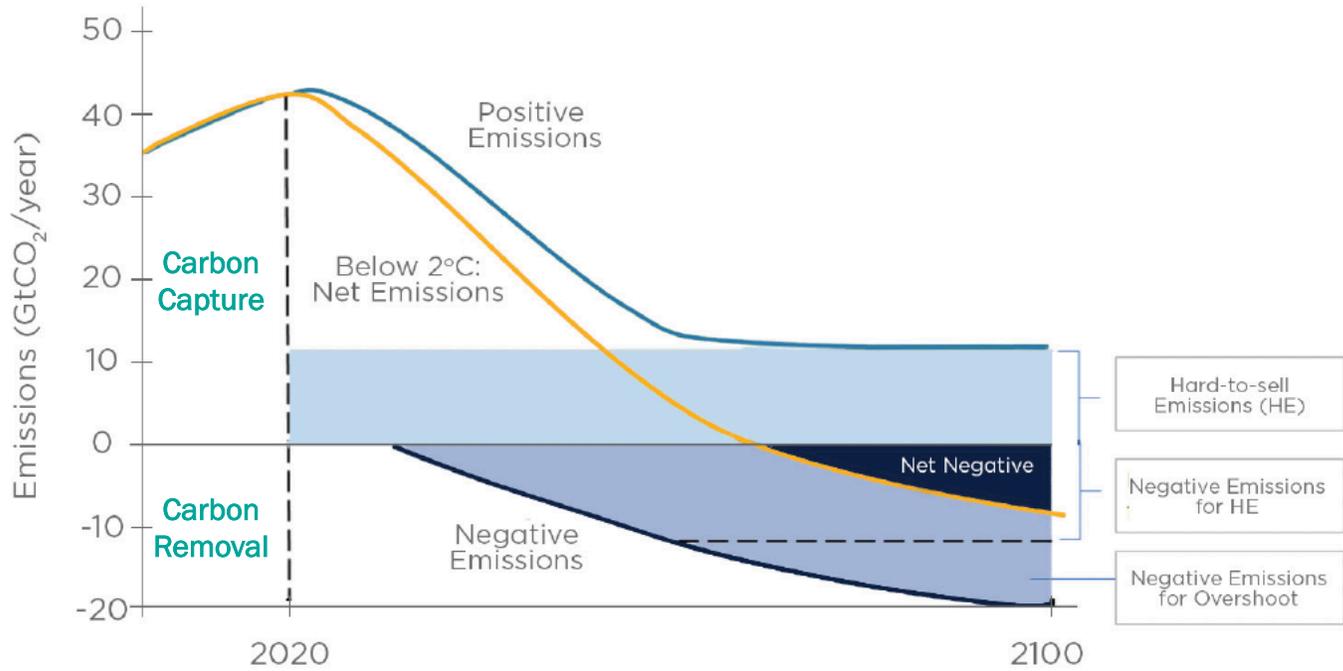
THE RODA GROUP

CHRYSALIX VENTURE CAPITAL

*VC's & Strategic Investors (51%)*

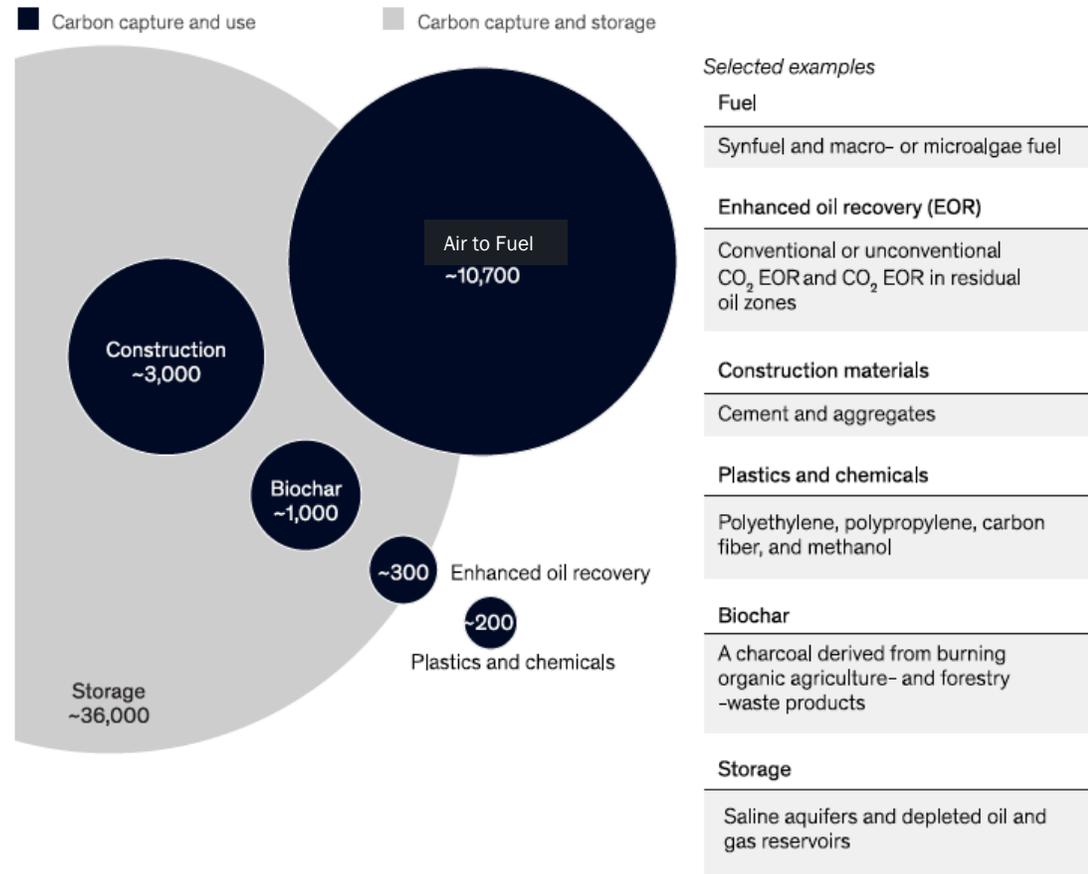
# The Arithmetic of Net-Zero

CO<sub>2</sub> emissions – CO<sub>2</sub> removals = 0



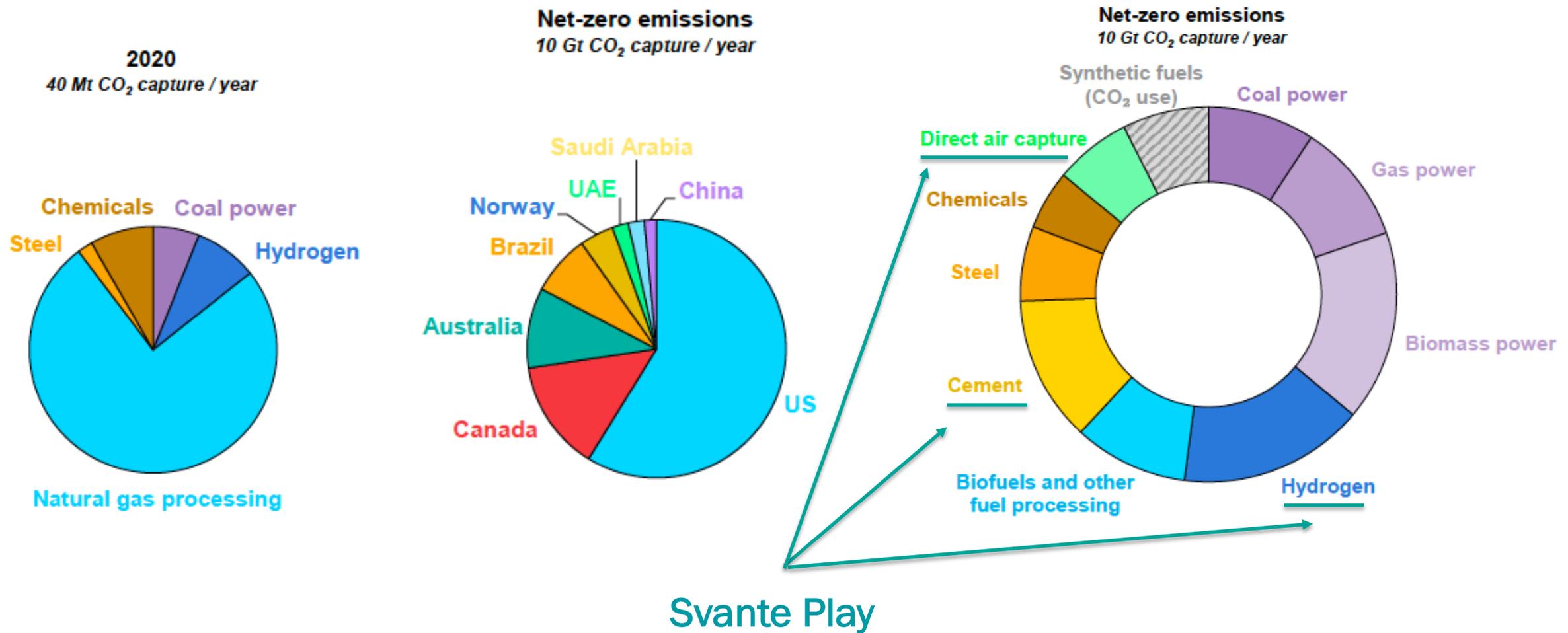
Source: J. Wilcox et al. 2020.

Technical potential of CCUS in 2030, metric megatons of CO<sub>2</sub> per year<sup>1</sup>



Source: McKinsey, 2020

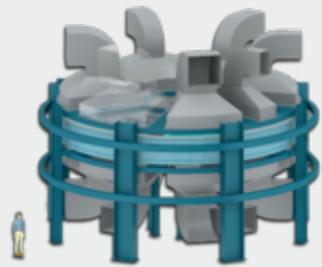
# Carbon Capture Market Segmentation



Source: IEA, September, 2020

# Svante's Low CAPEX Technology

- High capital cost is currently a barrier to widespread **deployment of carbon capture**
- Svante's solid sorbent technology is industrial scale, **low CAPEX** solution ready to enable the market today
- By replacing large chemical solvent towers (conventional approach) with a single piece of compact equipment, Svante's technology **enables a 50% reduction in capital costs compared** to first generation approaches

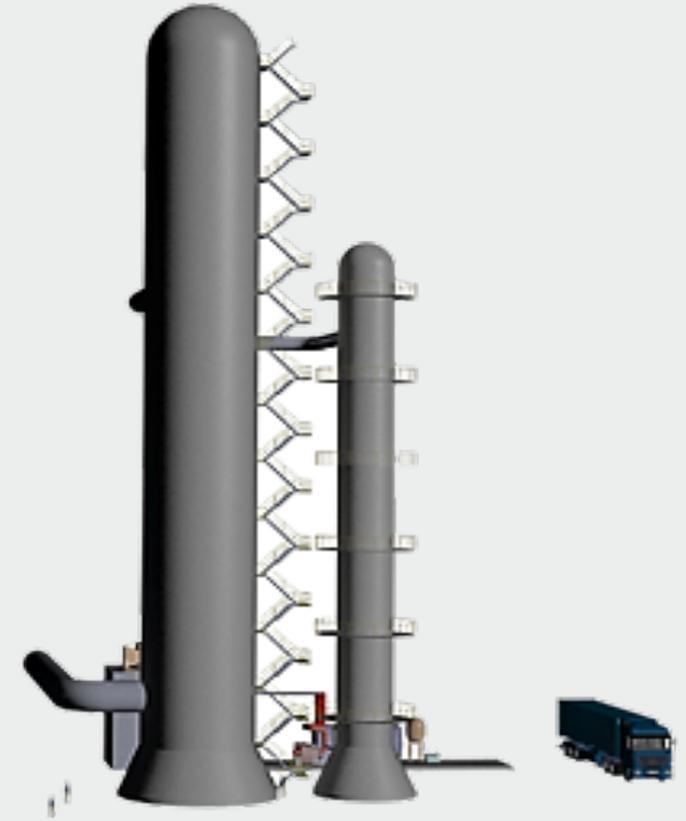


Svante Technology

CAPEX

Half of the Capital  
Costs

CAPEX



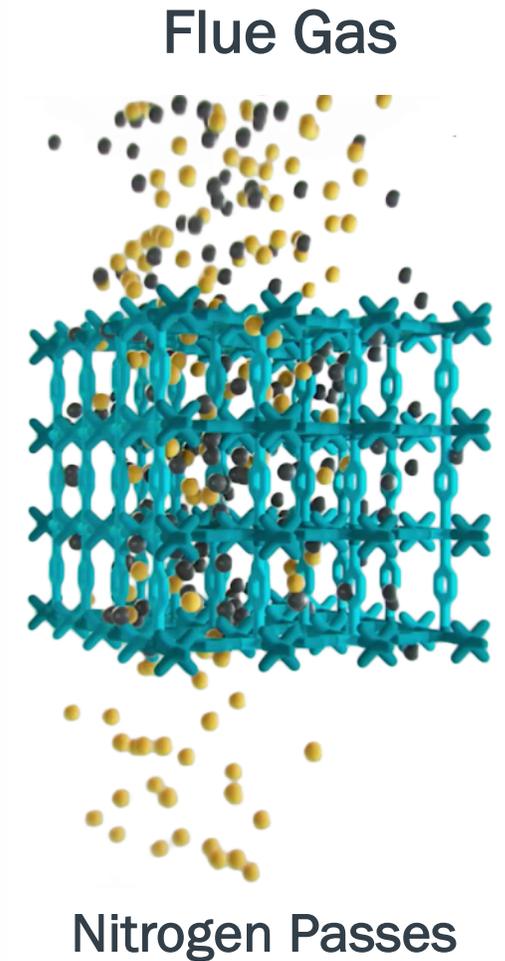
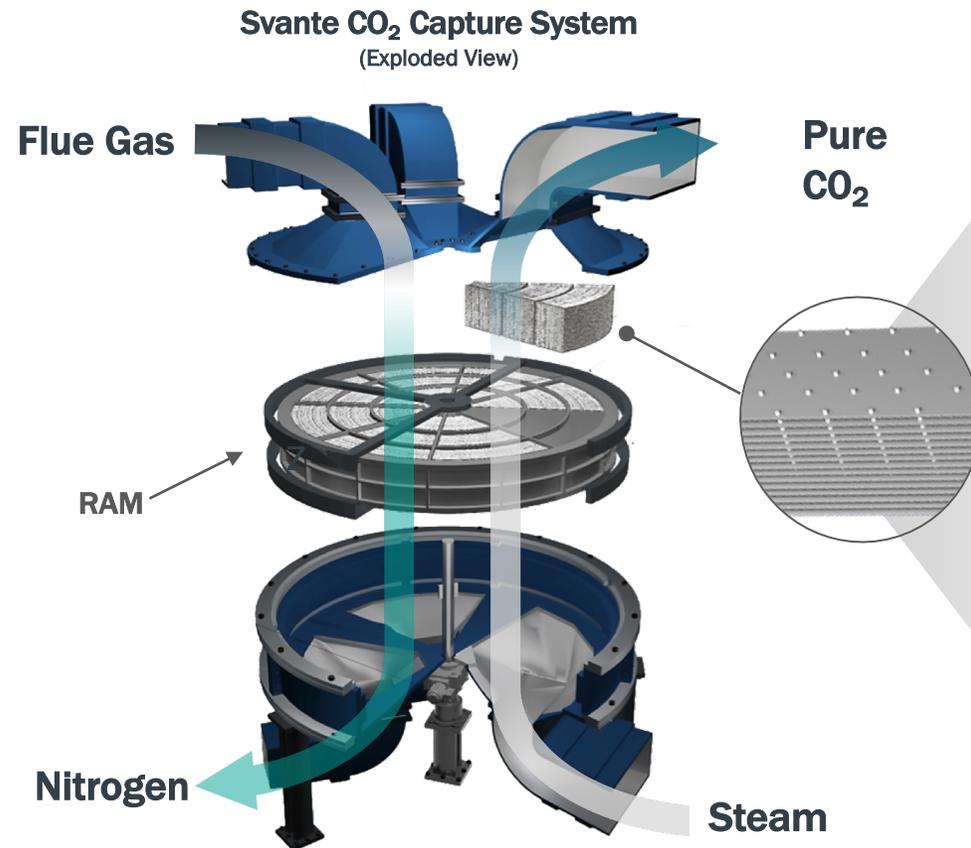
Conventional Approach

# Svante's Technology – Nano-Filter Solid Adsorbent

**Powerful Nano-Filter**  
high capacity for CO<sub>2</sub> capture

**Fast Heat Transfer**  
large productivity and small footprint

**Low Pressure Drop**  
low operating cost



# Demonstration Plant – Industrial natural gas boiler



World's  
first rapid cycle  
sorbent CO<sub>2</sub>  
capture plants

PARTNERS

 **Husky Energy**

LOCATION

Lloydminster, Saskatchewan

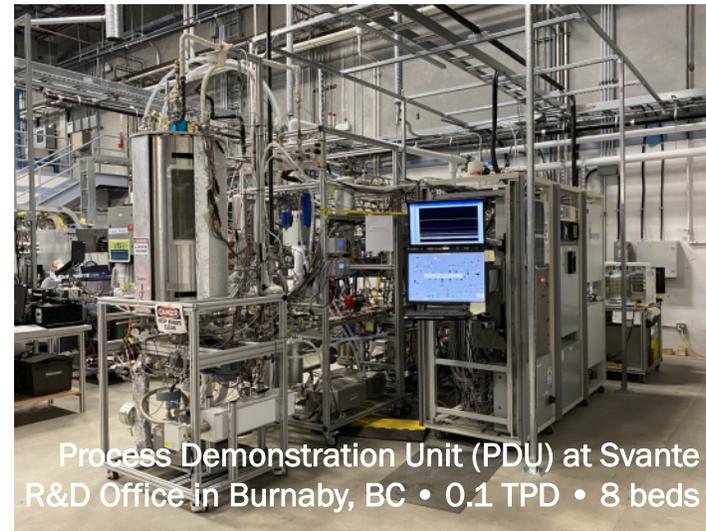
CAPACITY

30 tonnes/day

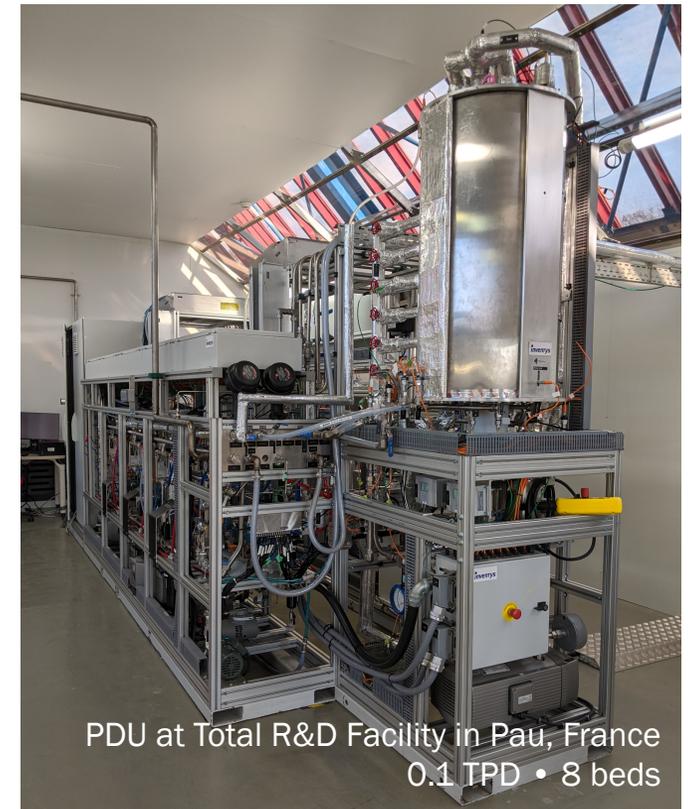


# Svante Testing Facilities

Pilot Plant Capture Unit (PPCU) at Cenovus (formerly Husky) SAGD facility in Lashburn, SK • 30 TPD • 48 Beds



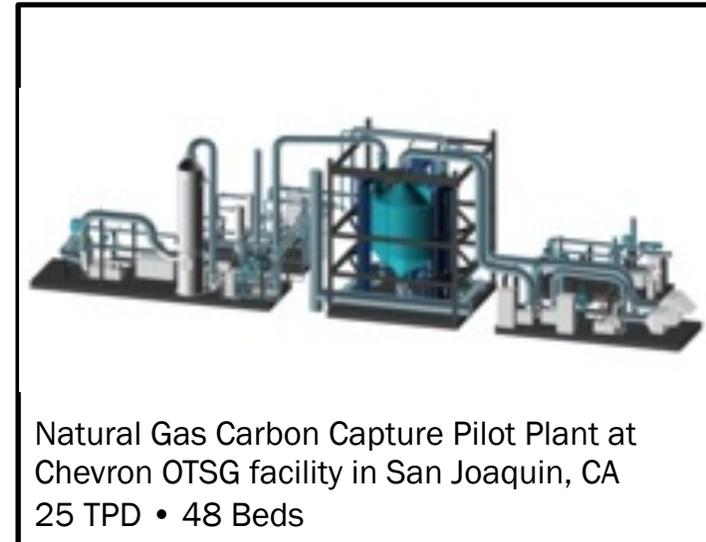
Process Demonstration Unit (PDU) at Svante R&D Office in Burnaby, BC • 0.1 TPD • 8 beds



PDU at Total R&D Facility in Pau, France  
0.1 TPD • 8 beds

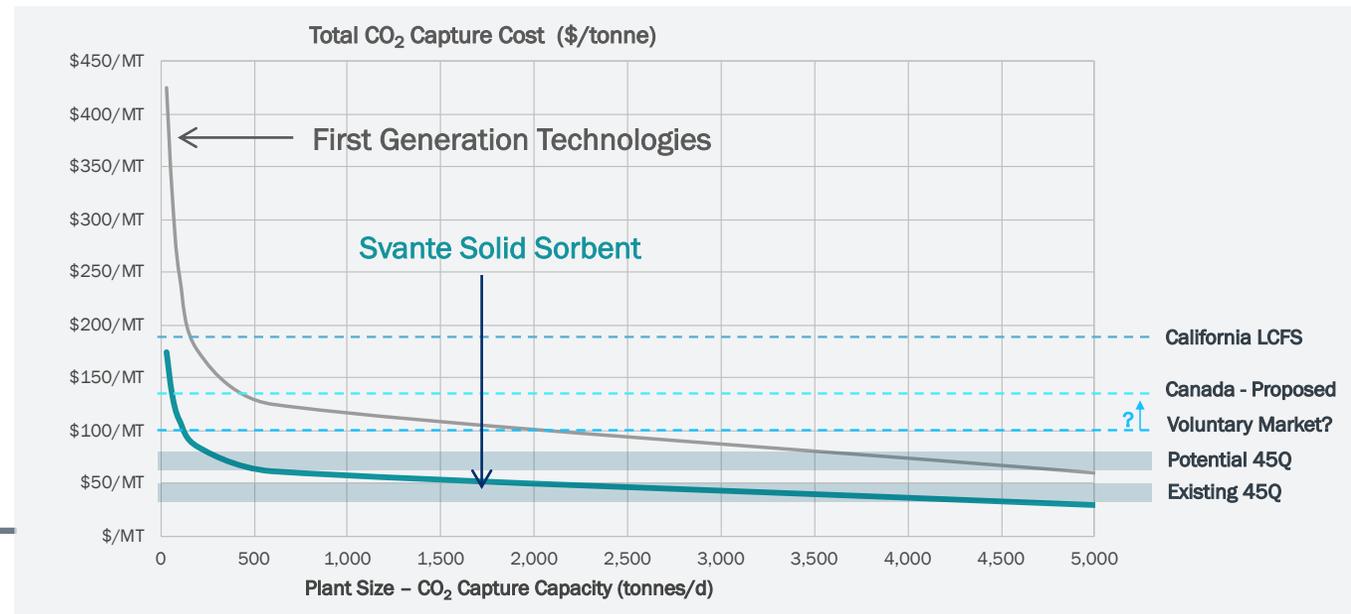
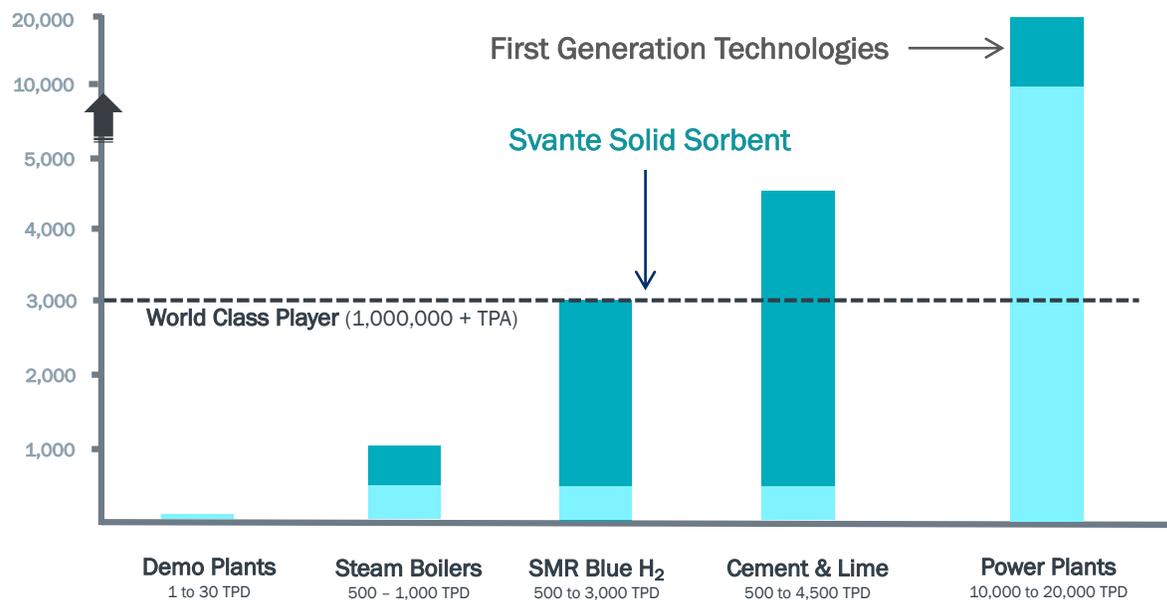


CO<sub>2</sub>MENT Unit at Lafarge Cement Plant in Richmond, BC  
1 TPD • 48 beds

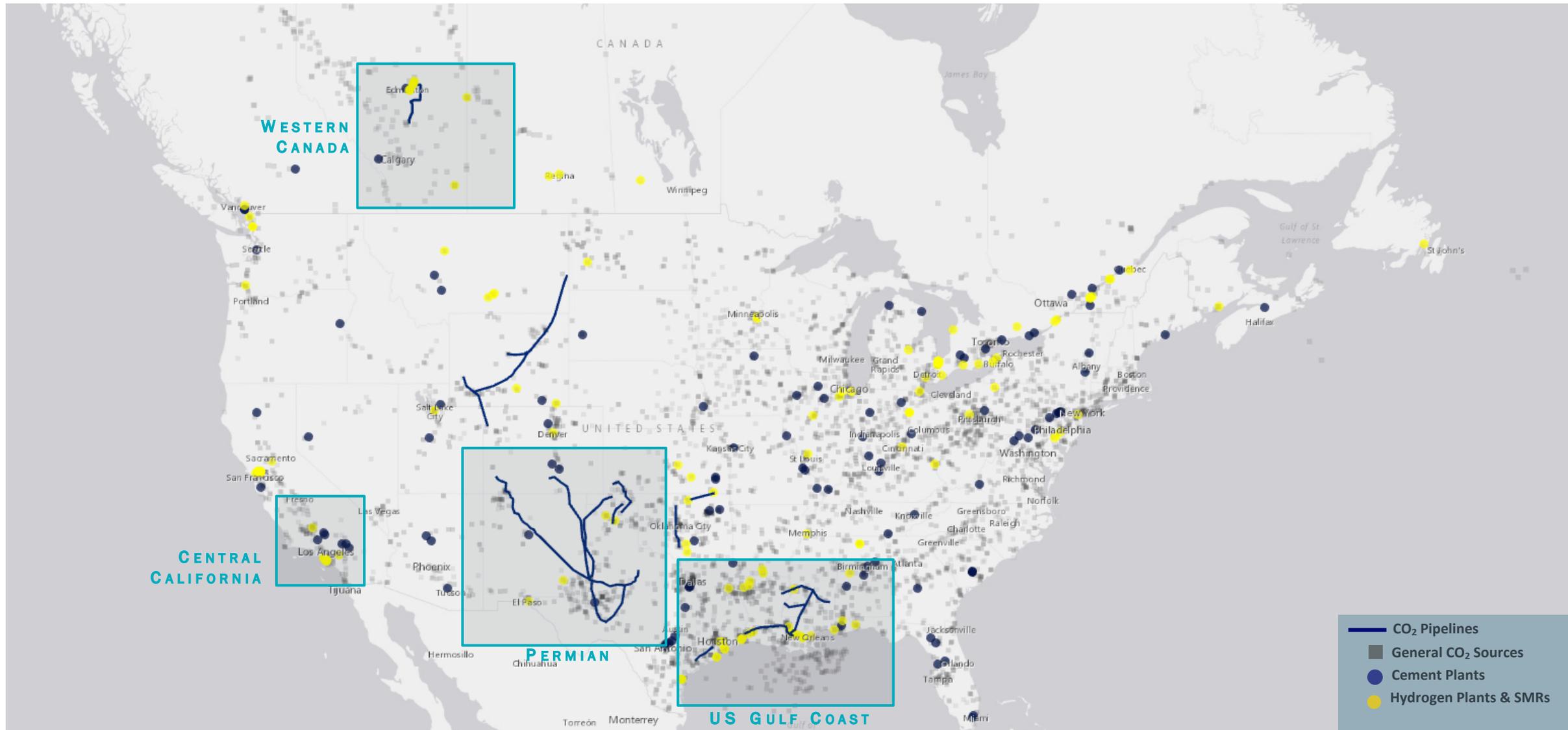


Natural Gas Carbon Capture Pilot Plant at Chevron OTSG facility in San Joaquin, CA  
25 TPD • 48 Beds

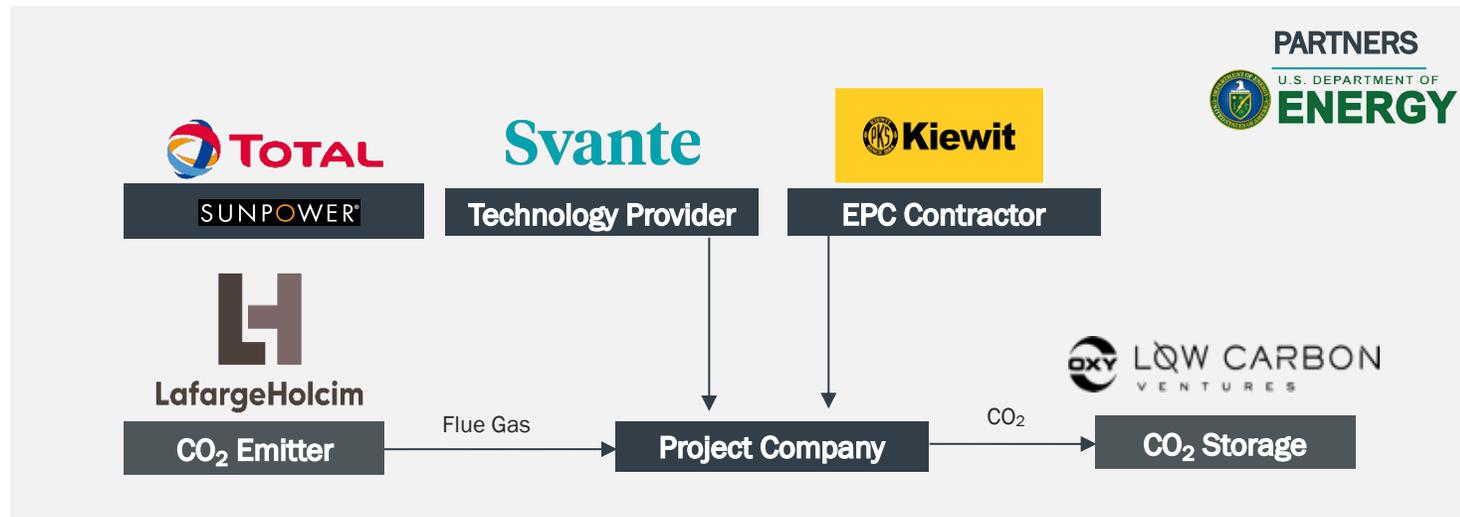
# Economies of Scale | Customer Affordability



# North American Market Landscape



# Building a CO<sub>2</sub> Marketplace in Colorado



Demonstrate CO<sub>2</sub> capture from industrial boiler flue gas

Solid Sorbent Technology

Capacity: 10,000 tonnes/yr

Saskatchewan, Canada

Pre-Feasibility Study of First Commercial Scale Svante Capture Plant for CO<sub>2</sub> storage from cement plant

45Q Tax Credits – 50 \$/tonne

Capacity: 1.5 million tonnes per year

Florence, CO, USA

# LafargeHolcim CO<sub>2</sub>MENT Project, Florence, Colorado

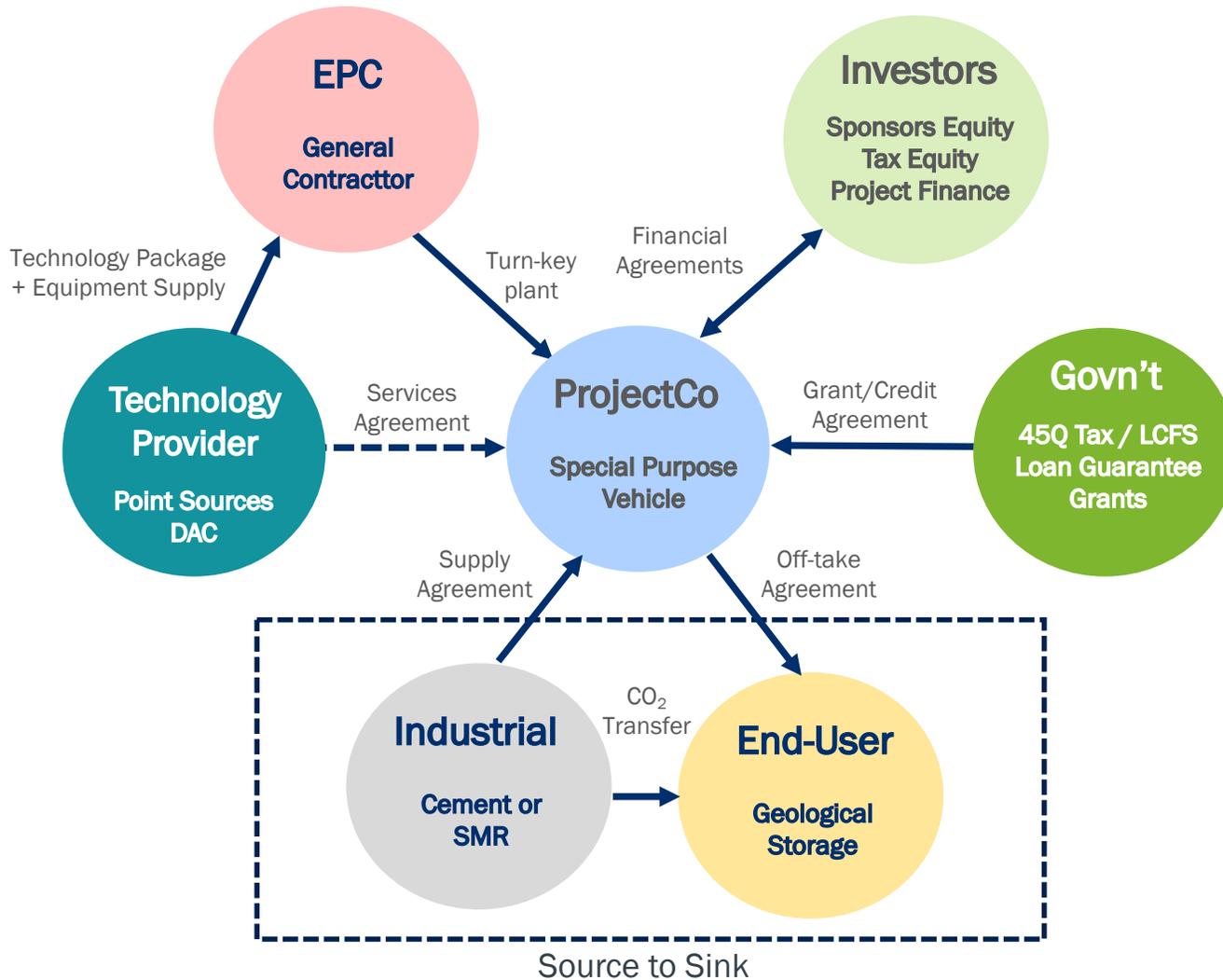


BUILDING FOR  
net zero  
PEOPLE & PLANET

# Sheep Mountain Natural Reservoir - CO<sub>2</sub> Hub in Colorado



# CO<sub>2</sub> Marketplace Business Model



## Key Drivers

- 45Q Tax Credits
- LCFS
- Price on Carbon (50+ \$US/tonne)
- Voluntary Carbon Markets
- Border Carbon Adjustments (BCA)

## Project Finance

- Similar structure as renewables deployment
- Complex Risk Management Framework:
  - New technology deployment
  - CO<sub>2</sub> ownership liabilities (Cradle to Grave)
  - Multi-party arrangements

# Svante

Capturing Carbon, Economically Today

[www.svanteinc.com](http://www.svanteinc.com)

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