carbon clean

TECHNOLOGY TO ACHIEVE 'NET ZERO'

Industrial decarbonisation at a gigatonne scale

Industrial decarbonisation is a trillion $ market opportunity

Carbon capture is the most proven and cost-effective method of achieving industrial decarbonisation

Addressable Challenges:

Climate change is real

10 gigatonnes of industrial CO_2 emissions per annum. Companies and governments are demanding carbon capture solutions.

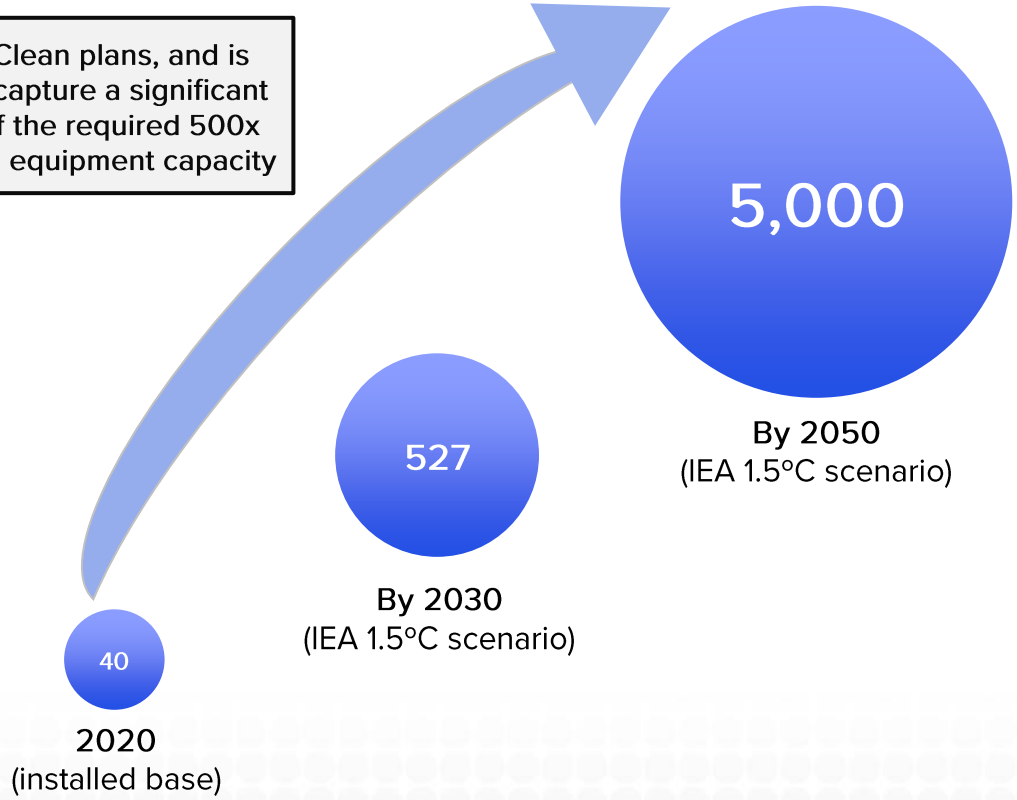
CO_2 capture today is too expensive

Our competitors' offerings cost $100's / tonne. There are no standardised design solutions.

>50% of industrial sites have no space

Most industrial sites are too dense for incremental infrastructure.

Carbon Clean plans, and is ready, to capture a significant portion of the required 500x ramp up in equipment capacity



million tonnes CO_2 per annum capture capacity required

Introduction to Carbon Clean

- Carbon Clean is a global leader in industrial carbon capture solutions.
- The company's patented technology significantly reduces the costs of carbon capture.

49

Global sites

1.8m

Tonnes captured

50%

Footprint reduction

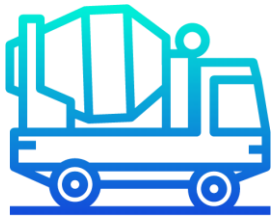
50%

Up to 50% overall cost reduction

Carbon Clean holds 103+ patents – the largest database of patents in carbon capture.
We work as both a technology supplier and an equipment partner.

Our key focus industries

- Heavy industry accounts for around 30% or global emissions.
- CCUS must transform like solar did between 2010 and 2020: a 1,663% scale up in deployment.
- We are set to achieve our vision of capturing **1 billion tonnes** of CO_2 by the mid-2030s.



Cement

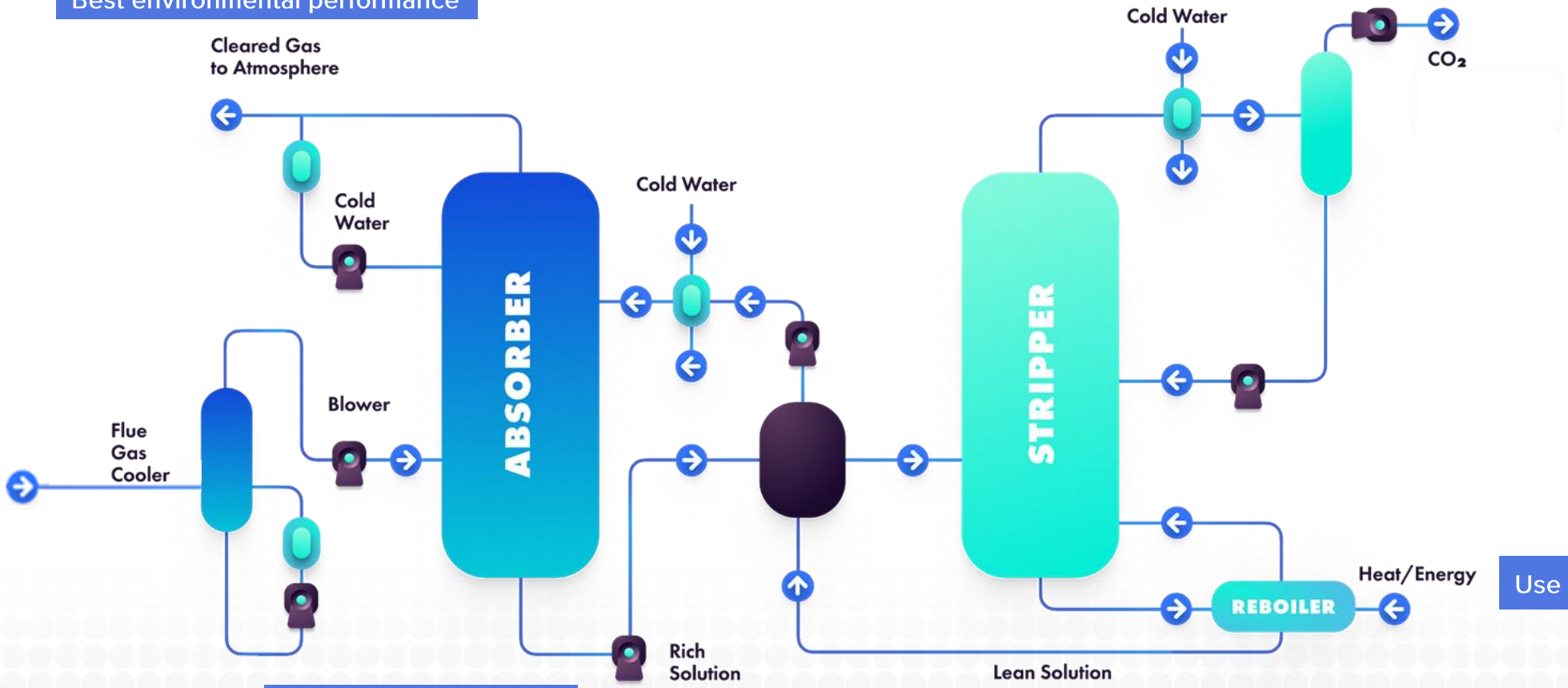
Refineries

Steel

Energy from Waste

How we are solving it

Carbon Clean has expertise in process design and engineering that, when integrated with existing industrial plants or new projects, enables optimised carbon capture



Our solutions

Conventional Technology

- Engineered to order
- Capacities up to 4,000TPD CO_2
- Mature technology
- Traditional project execution

CDRMax Technology - Semi-Modular

- Pre-fabricated semi-modular systems
- Capacities 10, 100, 200, 300 TPD CO_2
- Less installation and onsite activities
- Reduced project timeline

CycloneCC Technology – Modular

- Fully pre-fabricated modular system
- Capacities 10, 100, 300 TPD CO_2
- Up to 50% reduction in CapEx and OpEx
- Standardised scalable specific sizes reduce footprint

Our execution strategy is simple

Lead with the world's smallest industrial carbon capture solution: CycloneCC

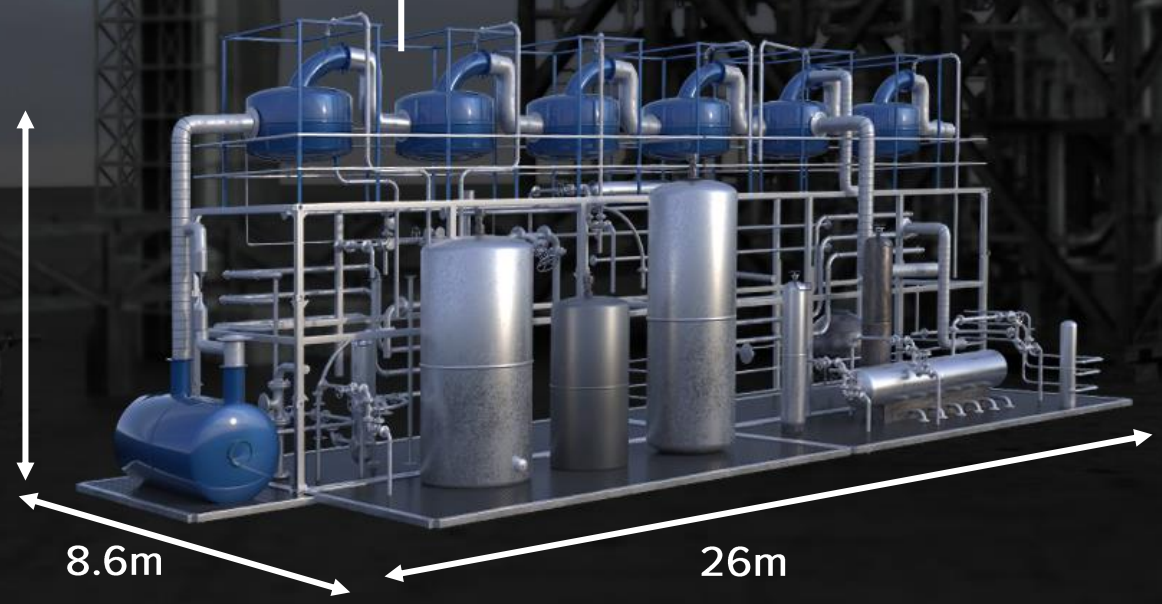
- ✓ ***Modular:*** *Mass transfer equipment is 10x smaller and overall footprint is up to 50% smaller than conventional carbon capture units*
- ✓ ***Scalable:*** *10, 100 and 300 TPD CO_2*
- ✓ ***Low Cost:*** *CapEx and OpEx are reduced by up to 50%*

100 TPD conventional CO_2 capture plant

- Overall footprint: 500m^2

100 TPD CycloneCC modular solution

- Overall footprint: 225m^2



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Tuticorin Alkali Chemicals and Fertilizers Limited

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CIN L24119TN197PLC006083

> 90% capture rates	~$40/tonne capture cost
CO_2 converted into soda ash for green product resale	Soda ash purchased by Unilever for 100% green cleaning products

"Not only does this project meet cost and performance expectations, but we're able to convert the CO_2 into soda ash – an ingredient found in commercial household products."

G. Ramachandran, Managing Director, TFL

Location: Chemical and fertiliser carbon capture and conversion plant in Chennai, India

- Carbon Clean has been operating the world's first low-cost industrial-scale CCU plant in India since 2016, with Tuticorin Alkali Chemicals and Fertilizers Ltd (TFL)
- The project captures 60,000 tonnes of CO_2 per year from coal-fired boiler flue gas and produces soda ash for green product sales

CDRMax semi-modular: TATA Steel

TATA STEEL

Capturing 5 TPD of CO_2	Modular and skid-mounted technology
First-of-its-kind within the steel industry	CO_2 reuse onsite to promote the circular carbon economy

"The operational experience gathered from this 5 TPD CO_2 capture plant will give us the required data and confidence to establish larger carbon capture plants in future. As the next step, we aim to establish scaled up facilities of CO_2 capture integrated with utilisation avenues."

T. V. Narendran, CEO & MD, Tata Steel

Location: Steel pilot plant in Jamshedpur, India

- In 2021, Carbon Clean successfully designed and commissioned a blast furnace carbon capture plant at Tata Steel's Jamshedpur facility
- The carbon capture technology captures CO_2 directly from the blast furnace gas and makes it available for onsite reuse
- The operational experience gathered from this 5 TPD capture plant will give the necessary data and confidence to establish larger carbon capture plants going forward with the aim to establish scaled up CO_2 capture facilities integrated with utilisation avenues

CDR-Max: NTPC

Capturing 20 TPD of CO_2

Semi-modular CDRMax® technology

Future ambitions of building large-scale CCU facility

Reusing the captured CO_2 to produce methanol

"With NTPC's drive for cleaner power and Carbon Clean's proven and reliable technology, we are confident of bringing about a positive change to the environment."

Varun Puri, Managing Director, Green Power International Pvt. Ltd.

Location: Thermal power plant in Vindhyachal, India

- In 2021, Carbon Clean was selected, with Green Power International, to design and build a carbon capture plant with NTPC
- Carbon Clean's carbon capture solution will be installed in the plant's flue gas stack and CO_2 will be captured as it is emitted from the coal-fired boiler

CDRMax: FlagshipONE

Liquid Wind · Alfa Laval · Haldor Topsoe · Siemens · Worley

Carbon neutral fuel for the maritime industry

Standardised, modular facilities

Vision for 500 operational sites globally by 2050

CO_2 end use: eMethanol

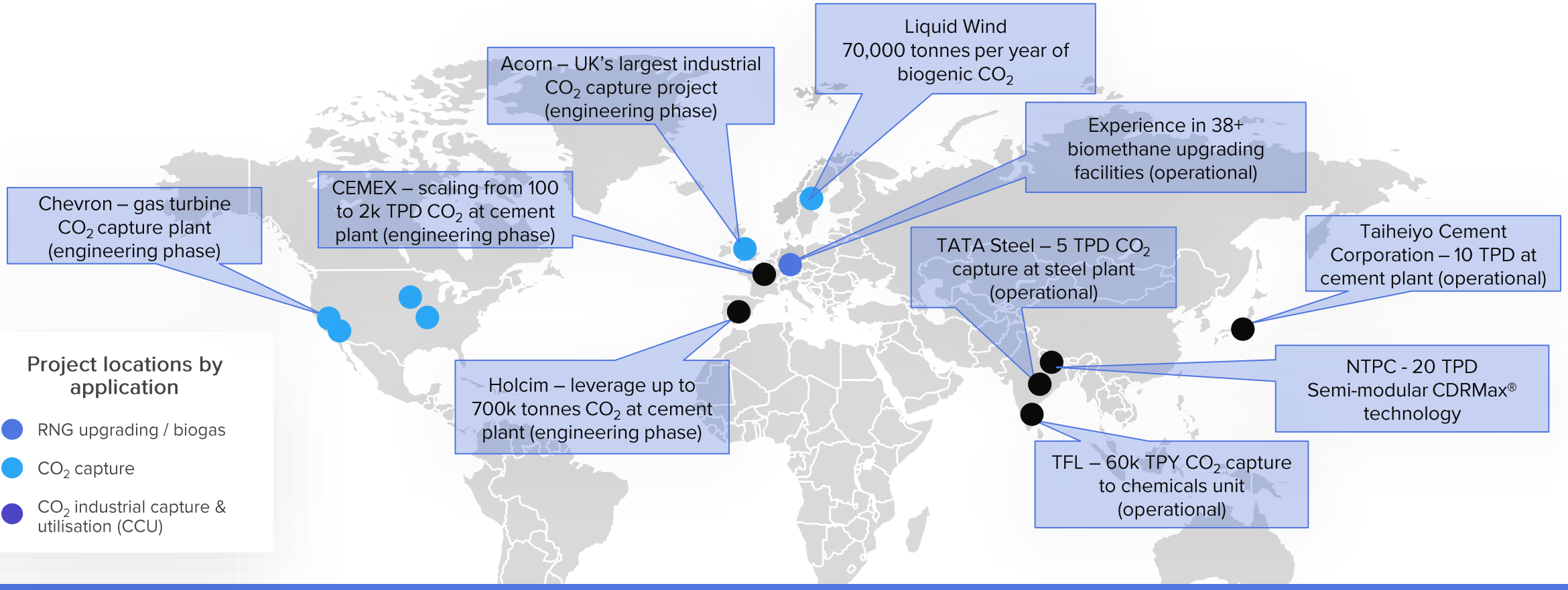
""FlagshipONE is a milestone project for Ørsted and for the decarbonisation of the maritime industry – and we're very happy to be working with Carbon Clean, as we embark on the journey to transform global shipping."

Anders Nordstrøm, COO of Ørsted P2X

Location: Örnsköldsvik, Sweden

- Carbon Clean will deliver carbon capture equipment capable of capturing 70,000 tonnes of biogenic CO_2 per year for Ørsted's FlagshipONE facility – Europe's largest green methanol project, based in Sweden
- FlagshipONE will supply 50,000 tonnes of eMethanol per year to the shipping industry, which today accounts for around 3% of global carbon emissions

49 technology references across the globe



Over 1.8 million tonnes CO_2 captured since 2009

Strong global partnerships

Strategic Partners & Top Customers

Key Investment Partners

Why Carbon Clean?

Global leader in cost-effective, modular and scalable carbon capture solutions

Patented technology, processes & engineering expertise, proven at over 49 sites around the world

Enabling industries to reach net zero, leverage decarbonisation incentives and join the growing global circular carbon economy