

The background of the slide is a photograph of a lush green forest covering a hillside. The forest is dense with various shades of green. In the middle ground, there are some stone ruins or a small building partially obscured by the trees. A thick layer of white mist or fog hangs between the trees, creating a soft, ethereal atmosphere. The sky is overcast and grey.

CCUS

Financing CCS

April, 2023

SEB is positioning our business to enable our clients transition

The Brown

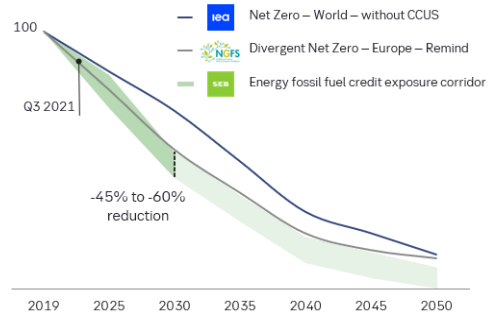
Climate ambitions and goals to ensure our progress

Carbon Exposure Index

What: Volume-based metric capturing our fossil fuel credit exposure

How: Measuring the fossil fuel credit exposure in our energy portfolio

Goal: To reduce exposure by 45–60% by 2030, compared to a 2019 baseline



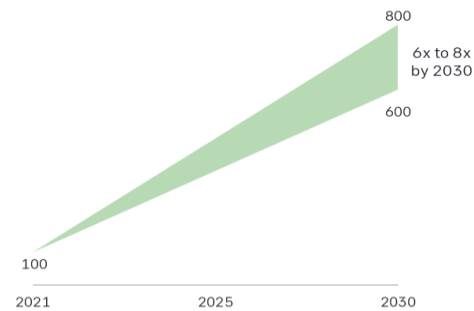
The Green

Sustainability Activity Index

What: Volume-based metric capturing our sustainability activity

How: Measuring our activities supporting the sustainable development

Ambition: To increase average activity 6x–8x, compared to a 2021 baseline



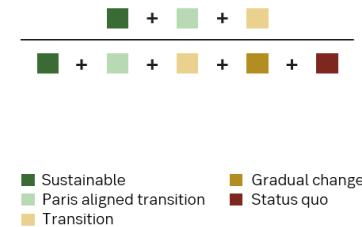
The Future

Transition Ratio

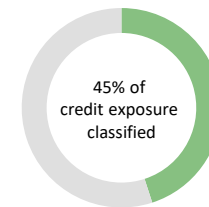
What: Volume-based ratio based on our internal Climate Classification Model¹

How: Measuring our corporate and real estate credit portfolio's anatomy from a climate perspective

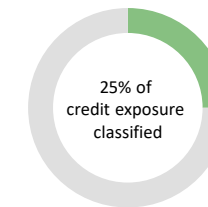
Ambition: To provide a reflection of how our customers, over time, transition in line with the Paris Agreement²



Customers with material carbon footprint³



Customers with slight carbon footprint³



Sector targets

The 2030 sector targets are set against a 2020 baseline and initially cover SEB's lending and commitments to the oil & gas, power generation, steel, car manufacturing and Swedish household mortgage sectors. These sectors targets strengthen and complement SEB's ambitions and goals withing the climate area. The Brown, The Green and The Future.

- For oil & gas (exploration, production and refining), the target is a 55% reduction in absolute financed emissions by 2030 compared with the 2020 baseline
- For power generation, the 2030 target is a 43% reduction in financed emissions intensity
- For steel, the 2030 target is a 30% reduction in financed emissions intensity
- For car manufacturing, the 2030 target is a 60% reduction in financed emissions intensity
- For Swedish household mortgages, the 2030 target is a 30% reduction in financed emission intensity

Sector	Emissions, scope	Metric	2020 baseline	2030 target
Oli&Gas E&P ¹ and refining	S1&2&3 ²	mtCO ₂ e ³	18.4	8.3 (-55%)
Power generation	S1&2	g CO ₂ e/kWh	123	70 (-43%)
Steel	S1&2	t CO ₂ e/t steel	1.40	0.98 (-30%)
Car manufacturing	S34	g CO ₂ e/km	153	61 (-60%)
Household mortgage Sweden	S1&2	Kg CO ₂ e/m ²	3.12	2.18 (-30%)

1. Exploration & Production; 2. S3 – use of sold products; 3. Financed emissions; 4. Use of sold products – Tank to Wheel

Source: SEB company filings, public communication and annual reports
 1. Model assessing our customers' and our own climate impact and alignment with the goals set out in the Paris Agreement 2. Ongoing work to classify credit portfolio. Transition ratio to be communicated in 2022 3. Measured as share of credit exposure

Project financing

What is Project Finance?

- Involves the financing of a major capital investment and can be applied to a wide range of industries
- Repayment of the lenders relies on the cash flow of the project, with such debt facilities being non-recourse to the shareholders, i.e. the lenders have no right to payments from shareholders
- Typically extended to an SPV (a project company) established by the project sponsors solely to own and operate the project

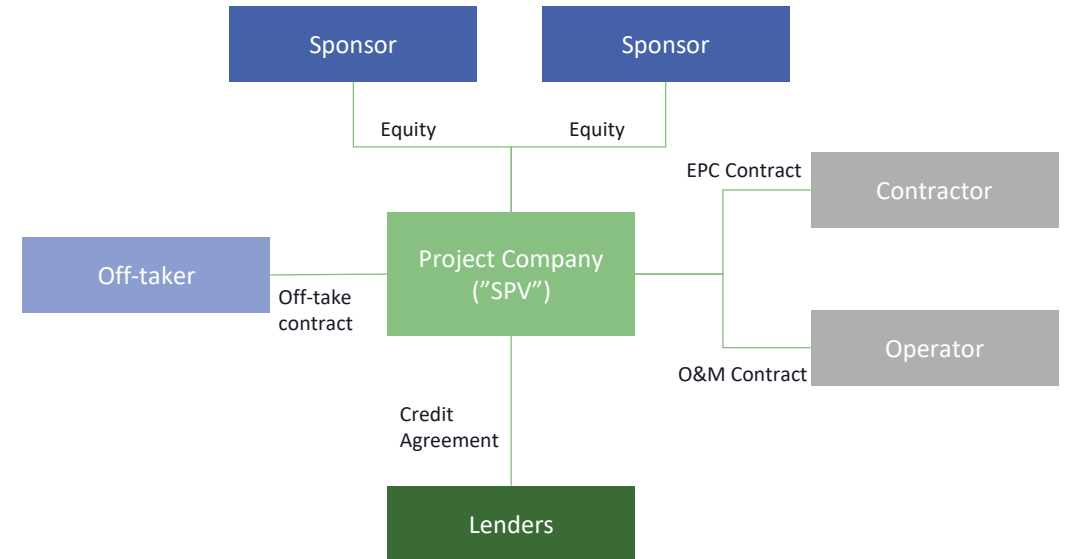
Benefits

- Lower risk for sponsors, since typically only invested equity is at risk
- Easy risk sharing with other sponsors
- Investment can be kept off balance sheet (depending on ownership structure)
- Helps to preserve corporate debt capacity
- Longer tenors achievable (up to 30 years)









Typical Features

- Ring-fenced structure with security in the assets
- High degree of project cash flow predictability
- Comprehensive documentation package / legal considerations
- Historical and forward looking financial covenants on the basis of an agreed financial model

Illustrative example of project finance structure



Selected SEB financings

 SLL RCF Arranger GBP 750m Feb 2023 	 Hornsea Two Acquisition Financing Arranger GBP 1.9bn Sep 2022 	 Hollandse Kust Zuid (49.5%) Project Financing EUR 1.2bn Mar 2022 	 Dogger Bank C Project Financing GBP 2.9bn Dec 2021 
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Key risk considerations for CCS project

All key risk areas will be subjected to thorough due diligence

1. Securing cash flow visibility



Supply risk

- Secured long-term contracts for CO2 supply with a defined volume and price

2. Mitigating other risks

Technology risk

- Selected proven and reliable technology for capture, transport and storage
- Technical due diligence required

Construction risk

- Fixed price/date certain turn-key EPC contract
- Equipment: payments related to performance milestones

Operational risk

- Operation & Maintenance agreements
- Equipment warranties

Financial risk

- Minimised financial risk by adequate capital structure and hedging

Early-stage financing

As of now, public money fuels CCS development

Announced public support

- Direct EU support for projects via EU Innovation Fund – EUR 1.7bn
- Direct EU support for projects via Horizon Energy– EUR 150m
- Danish CCS support – EUR 5bn, incl. EUR 1.1bn in CfDs
- UK declared to invest GBP 20bn in CCS projects over 20 years
- Norwegian Longship with public support of NOK 17bn (EUR 1.5bn, 70% of total project cost)
- Dutch government supported the Porthos CCS project with EUR 2.1bn
- US IRA CCS tax credit – est. USD 3.2bn
- US CCS direct funding – USD 3.5 bn for DAC hubs, USD 8.5bn for other projects
- Canadian CCS tax credit – CAD 2.5bn

Supported projects by the EU Innovation Fund

Country	Project	Granted support (EURm)
Germany	Holcim, Cement	110
Bulgaria	Devnta, Cement	190
Sweden	Project Air (Perstorp), Chemicals	97
Poland	Holcim, Cement	228
France	Lhoist Group, Cement	125
France	Eqiom, Cement	153
Sweden	Stockholm Exergi, WtE	180
Belgium	Port of Antwerp - BASF, Chemicals	356
Iceland	Carbfix, Carbon storage	115
Finland	SHARC (Neste), Chemical	88
Spain	Petronor, Construction materials	3
Iceland	Carbfix, Geothermal Power Plant	5
Total		1,650

CCS market drivers

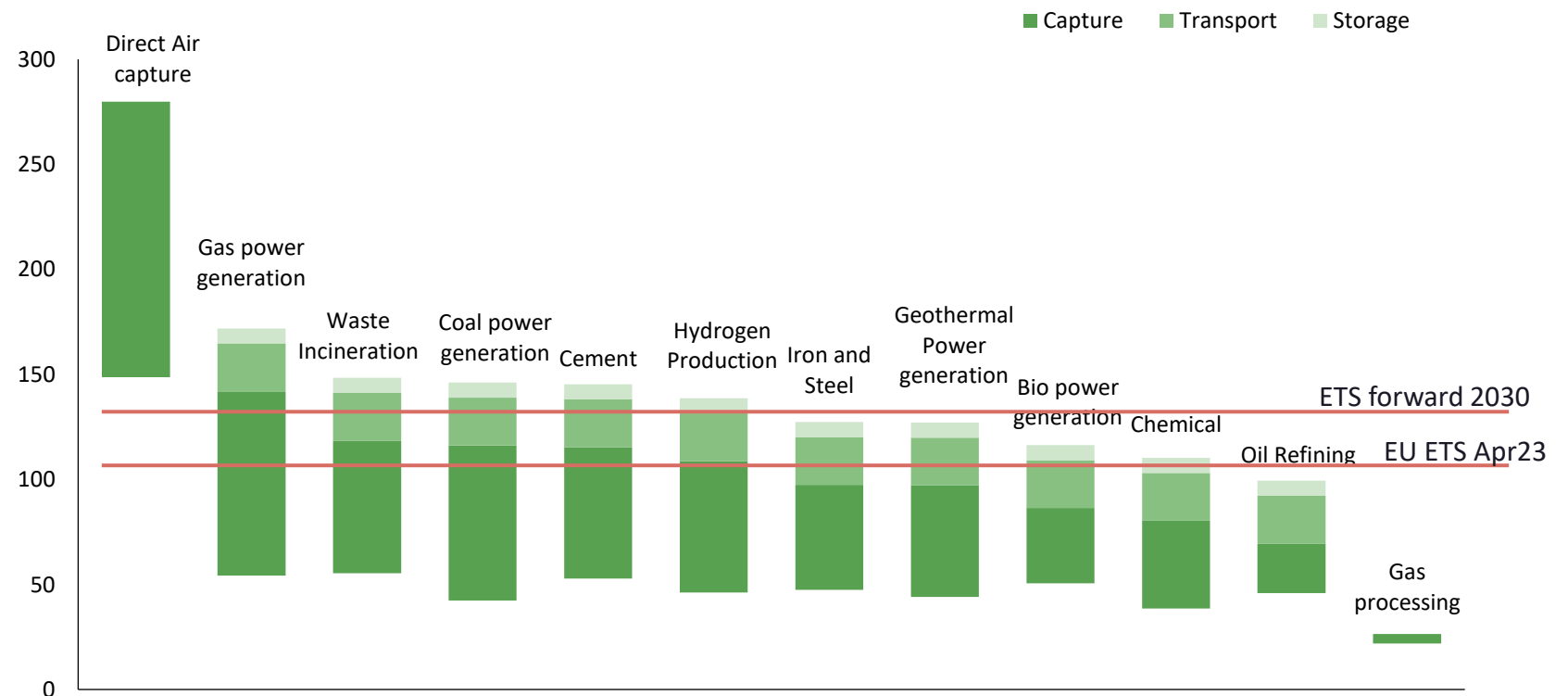
Cost of capture reaching levels close to breakeven to the EU carbon price (ETS)

European carbon policies

- EU announced increasing 2030 emission reduction target to 62%, change from 43%
- EU-wide target for 50Mt CO₂ injection capacity by 2030
- New sectors added to the ETS scheme - shipping in 2024, buildings and road transport from 2027
- Phase-out of free allowances by 2034
- Carbon Border Adjustment Mechanism will enter into force by 2026

As a result, more companies will pay full ETS price for their emissions

Carbon capture economics per industry USD/tCO₂



CCUS industry in SEB core markets

The activity around CCUS is intensifying

Observations from home markets

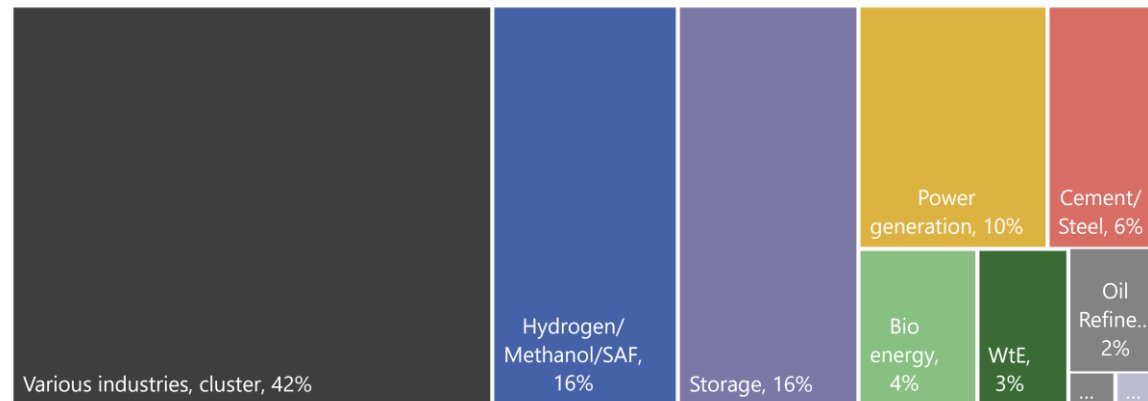
In the SEB home markets there are currently **57 projects** in the pipeline for combined capture and/or storage capacity of **140 Mt per annum**

The UK is a clear leader in terms of number of projects and capacity, what results from the big decarbonization challenges of the country as well as ambitious national CCS strategy

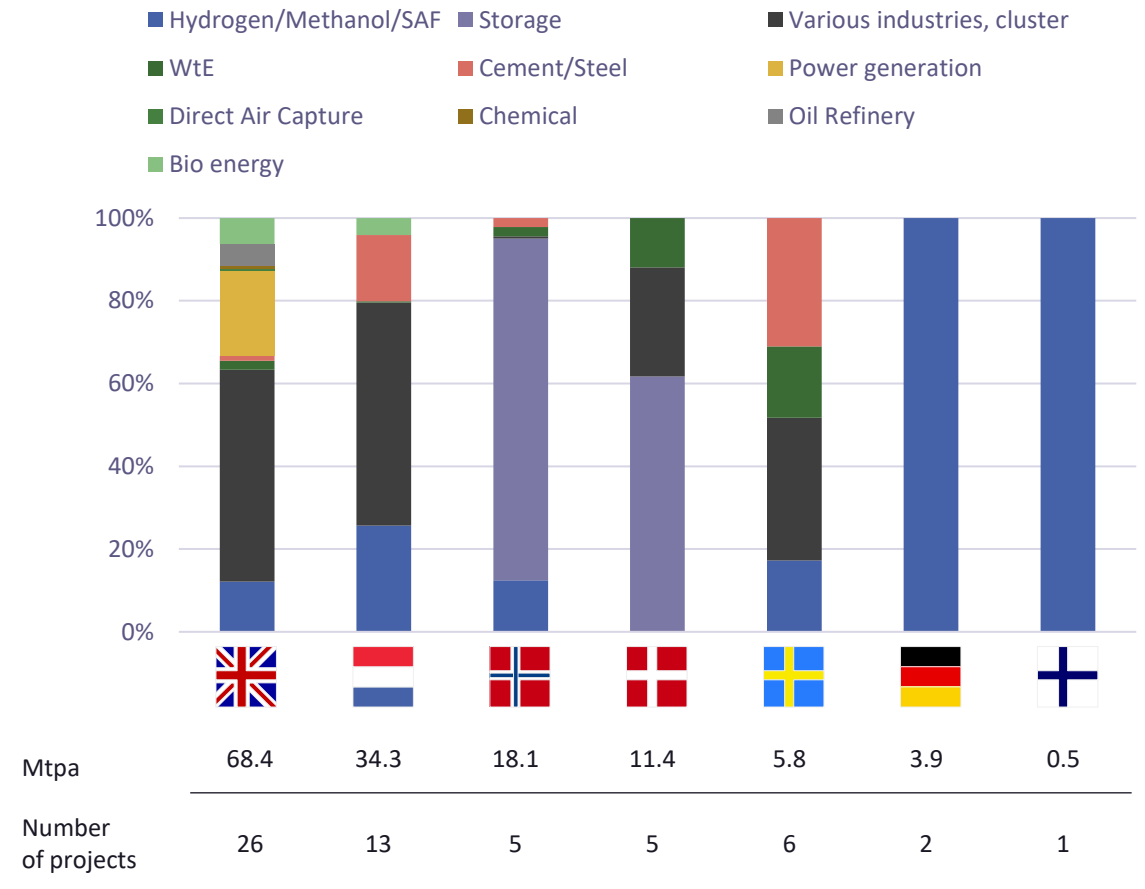
Norway appears as the third biggest CCUS market, because despite low own emissions, the country develops two significant carbon storage projects for other countries in the region

Germany, Europe's biggest emitter has only one project in the pipeline. The country is yet to develop its CCUS strategy but the market

15 projects from the pipeline are connected to the production of hydrogen



CCUS country pipeline, total and per sector



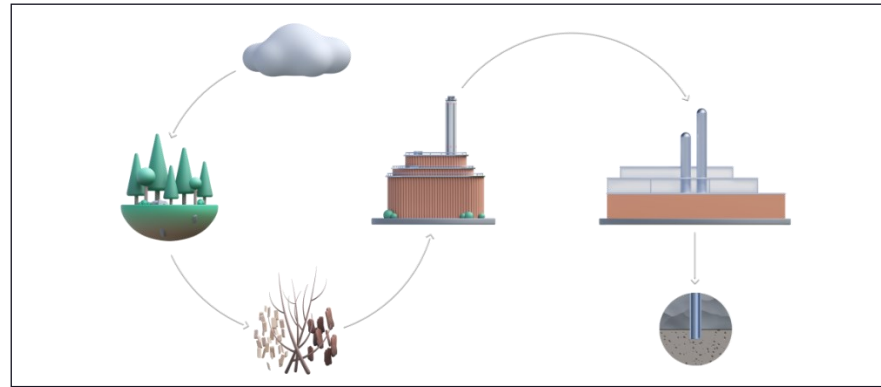
BECCS Stockholm

Europe's largest biomass-based Combined Heat and Power plant, aiming for negative emissions

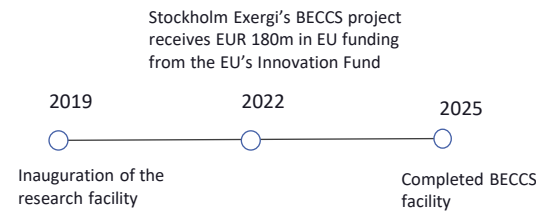
Bio-CCS in Stockholm

- Stockholm Exergi is one of the first companies in the world to develop a model for enabling the shift from reduced carbon dioxide emissions to negative emissions, a project supported by the EU's Innovation Fund
- By capturing the plant's biogenic carbon dioxide emissions and permanently storing it in the geosphere, the carbon flow is reversed, and a carbon sink is formed
- CO₂ that was previously circulating between the atmosphere and trees will now be withdrawn from the atmosphere, directly contributing to cooling of the atmosphere
- Stockholm Exergi's calculations show that there is potential to capture 800,000 tonnes of carbon dioxide per year at the bio-cogeneration plant in the Värtan area of Stockholm
- Stockholm Exergi is on the Forefront of development of Beccs and can be a catalyst for creating an international market for negative emissions through Carbon Removal Certificates. (CRC)

Technology overview



Recent and planned developments



Key figures

180^m EUR from EU Innovation Fund

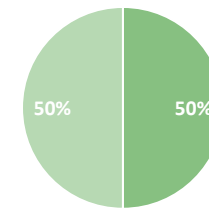
800 kt of CO₂ removed annually

2025 Expected start of operation

Owners



Stockholm Municipality



Investment consortium led by 

Carbon capture is being developed as an addition to Stockholm Exergi's bio-cogeneration plant in Hjorthagen in Stockholm

Source: Company information and press releases as of 30 June 2022
1. Expected capacity of completed project

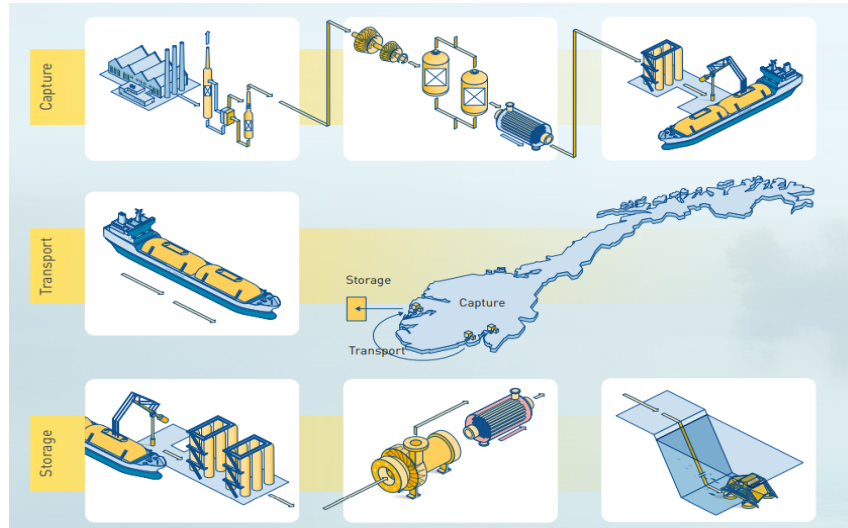
Fossil	2025 800kt ¹	Capture	Transport	Storage	Usage
Bio		Early stage	Under construction	Existing project	
Direct Air					

Longship

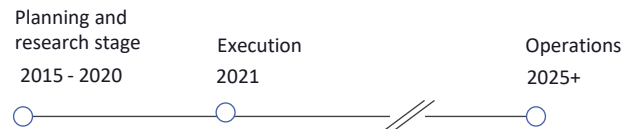
Development of a full value CCS chain

- Longship is one of the first industrial CCS projects to develop an open access infrastructure, with the capacity to store significant volumes of CO2 from across Europe
 - The end goal is to transport CO2 through pipelines to an offshore storage location under the North Sea
 - The Longship project has been granted support from the Norwegian Government in 2020, which also expects to cover two-thirds of the project's cost
 - The total cost estimate for Longship is NOK 25.1 billion and the government's share of the costs is estimated at NOK 16.8 billion
 - Total investments yields NOK 17.1billion, including Norcem, Fortum Oslo Varme, and Northern Lights
 - Longship is organized as several individual sub-projects;
 - **Carbon capture: Norcem Brevik**
 - **Carbon capture: Hafslund Oslo Celsio**
 - **Transport and storage: Northern Lights**
- Gassnova ensures coordination of the partners

Project overview



Developments



Key figures

25.1 bn NOK estimated investment cost

800 kt annual carbon capture capacity

2025 Expected start of operation

Partners



Placing Norway in the lead of CCS technology developments necessary for achieving climate goals

Source: Company information
1. Expected capacity

Fossil	n/a	Capture	Transport	Storage	Usage
Bio	n/a ¹	Early stage	Under construction	Existing project	
Direct Air					

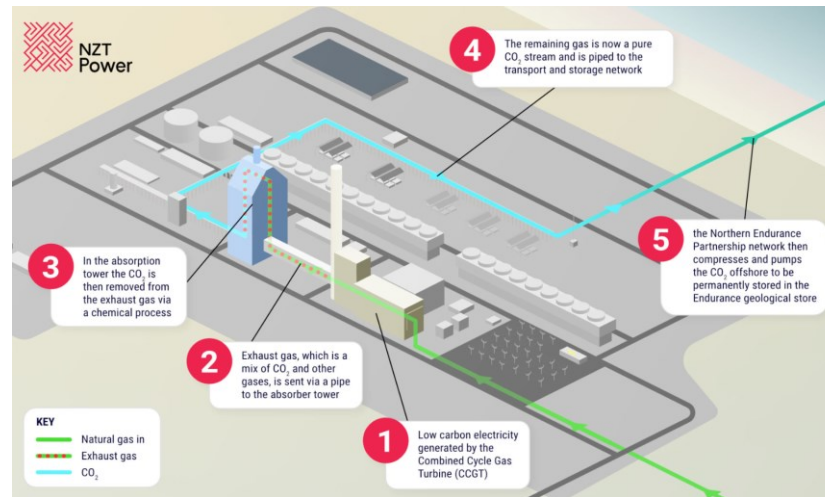
Net Zero Teesside Power (NZT Power)



UK's first decarbonised industrial cluster

- Net Zero Teesside is a collection of industrial, power and hydrogen businesses which aim to decarbonize their operations through the deployment of carbon capture utilization and storage (CCUS)
- NZT Power's proposed combined cycle gas turbine electricity generating station will have an electrical output of up to 860 megawatts (MW) of low carbon electricity, enough to power up to 1.3m homes per year¹
- The proposed carbon transportation and storage infrastructure will capture and store up to two million tonnes of CO₂ a year.² from the power plant, Corresponding to over 95% of its emissions. CO₂ will be dried and compressed to safely enter the transportation and storage system. Low-carbon power will be exported to the nearby National Grid Tod Point facility
- In January 2022, NZT Power submitted a bid into phase-2 of the UK Government's Carbon Capture, Usage and Storage (CCUS) cluster sequencing process. If successful, NZT Power will be eligible for government business model support

Technology overview



The two selected contractor groups



Key figures

n/a bn GBP estimated cost of the facility

2.0 mt annual potential to transport and store CO₂

2026 Expected operation start

Project partners



The two engineering groups will now design development plans for NZT Power's proposed power station and cc plant

Source: Company information and press releases as of 30 June 2022

1) Based on average household consumption data from BEIS, 'Subnational Electricity and Gas Consumption Statistics', 22 December 2020

2) Based on total UK households equalling 27.8m, as stated in the Families and households in the UK: 2020 report published by the Office for National Statistics on 2 March 2021

Fossil	2026 2.0Mt ^t	Capture	Transport	Storage	Usage
Bio		Early stage	Under construction	Existing project	
Direct Air					

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