



Tere tulemast

Välkommen

Welcome

Witamy

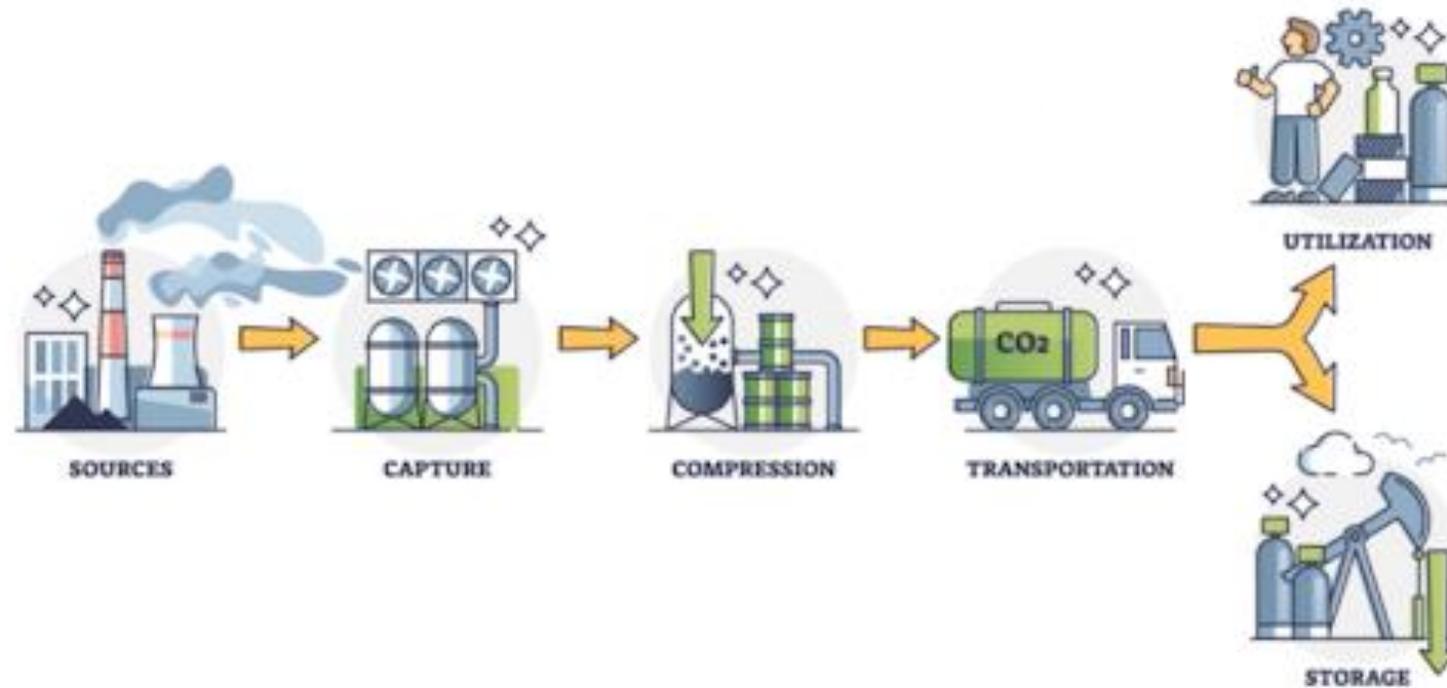
Laipni lūdzam

CommitClimate

Module - Carbon Capture, Utilisation and Storage - CCUS



Carbon Capture, Utilisation and Storage



Content

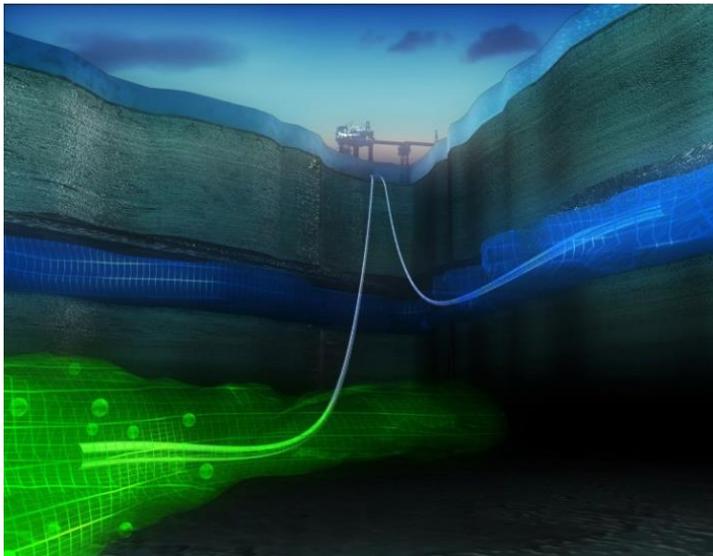
An aerial photograph of a wind turbine in a rural landscape. The turbine is the central focus, with its three blades extending upwards. The surrounding area consists of green and brown fields, with a line of trees in the distance. The sky is filled with soft, white clouds. The overall scene is peaceful and scenic.

- **Operational facilities**
- **Facilities under development**
- **CCUS-projects in Sweden**
- **CCUS-projects in Poland**

Operational facilities

Sleipner CO2 Storage Project (Norway): Operational since 1996 in the world's first commercial CCS project. This project captures and stores about 1 million tonnes of CO2 per year from natural gas processing in a saline aquifer beneath the North Sea.

<https://group.vattenfall.com/press-and-media/newsroom/2024/norways-sleipner-where-co2-has-been-buried-in-the-rock-since-1996>



Boundary Dam Carbon Capture and Storage Project (Canada): This project, operational since 2014, retrofitted a coal-fired power plant to capture around 1 million tonnes of CO2 annually, which is used for enhanced oil recovery (EOR).

Fossil fuels continue to play a significant role in the global energy portfolio. Proving carbon capture and storage (CCS) technology is critical to securing the long-term viability of sustainable coal production in Saskatchewan and around the world.

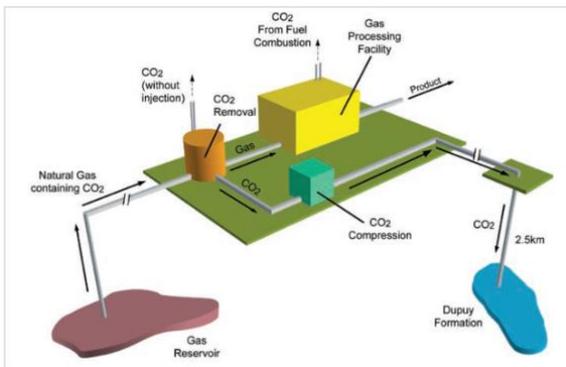
<https://www.saskpower.com/our-power-future/infrastructure-projects/carbon-capture-and-storage/boundary-dam-carbon-capture-project>



Operational facilities

Gorgon CO₂ Injection Project (Australia): Operational since 2019, this project is part of a natural gas development and aims to capture and store up to 4 million tonnes of CO₂ per year in a deep saline aquifer.

<https://www.dmp.wa.gov.au/Petroleum/Gorgon-CO2-injection-project-1600.aspx>



Quest Carbon Capture and Storage Project (Canada):

Operating since 2015, it captures and stores approximately 1 million tonnes of CO₂ per year from an oil sands upgrader.

Located at the Scotford upgrader near Edmonton, Alberta, the world-class Quest Carbon Capture and Storage (CCS) facility is proving that large-scale CO₂ capture is a safe and effective measure to reduce CO₂ emissions from industrial sources.

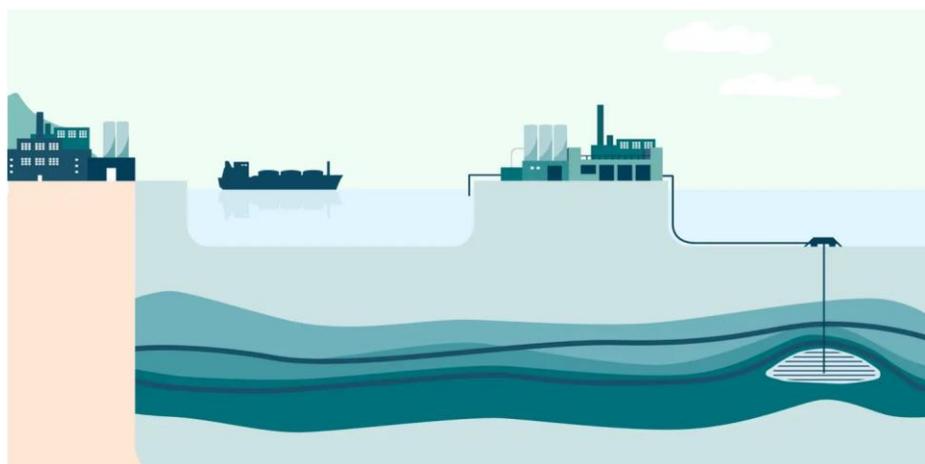
https://www.shell.ca/en_ca/about-us/projects-and-sites/quest-carbon-capture-and-storage-project.html



Facilities under development

Northern Lights (Norway): A joint venture by Equinor, Shell, and TotalEnergies, this project aims to create a full-scale CCS value chain in Europe. The first phase is expected to be operational by 2024, with a capacity to store 1.5 million tonnes of CO₂ per year.

<https://www.equinor.com/energy/northern-lights>



Porthos Project (Netherlands): Planned to be operational by 2026, this project will capture CO₂ from industrial sources in the Port of Rotterdam and store it in depleted gas fields beneath the North Sea, with a capacity of 2.5 million tonnes of CO₂ annually.

<https://www.porthosco2.nl/en/>



CCUS projects in Sweden

Sysav is developing a CCUS-project in Malmö for waste incineration facility targeting 400,000 tonnes of CO₂ capture per year by 2030.

<https://www.sysav.se/om-oss/press-och-media/nyheter/pressinbjudan-20-oktober-invigning-av-pilotanlaggning-for-ccs-varldsunik-teknik-fran-lund/>



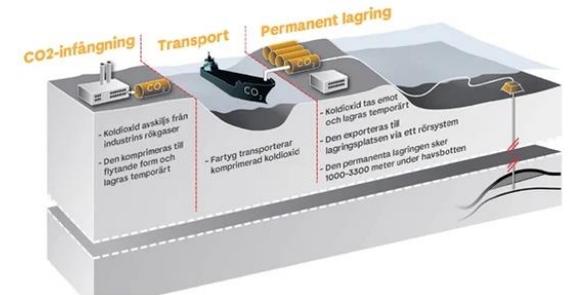
Stockholm Exergi is developing a bioenergy with carbon capture and storage (BECCS) project at its Värtaverket plant, targeting around 800,000 tonnes of CO₂ capture per year by 2030.

<https://www.stockholmexergi.se/koldioxidinfangning/fullskalig-anlaggning/>



Preem CCS, which aims to capture up to 500,000 tonnes of CO₂ annually from Sweden's largest oil refinery.

<https://www.preem.com/om-oss/projekt/koldioxidinfangning/>



CCUS project in Poland

Poland is progressing with CCS, particularly at the Bełchatów Power Plant, which is investigating CCS feasibility and pilot projects to integrate with its coal power operations.

<https://pgegiek.pl/ochrona-srodowiska/CCS/CCS-demonstration-plant2>





Thank you!

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