

APPENDIX 3

REQUIREMENTS SPECIFICATION

Contract on subsidy for negative emissions carbon capture, transport
and storage

Danish Energy Agency

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Instructions for tenderers

This Appendix contains the DEA's overall description of the NECCS Fund and the DEA's requirements specification.

The requirements are divided into Minimum Requirements (MR) and General Requirements (R), see the Tender specifications paragraph 6.

The Tenderer shall not fill in or complete this Appendix and it should not be submitted as a part of the Tenderer's Offer.

This guidance text will be deleted by the DEA in connection with conclusion of the Contract.

Introduction

This Appendix contains the Danish Energy Agency's ("the DEA") overall description of the NECCS Fund and the DEA's requirements specification.

The requirements are divided into Minimum Requirements (MR) and General Requirements (R). Each requirement has a unique number assigned for easy reference in communication.

Capitalised terms used in this Appendix shall have the meaning ascribed to them in Appendix 2, Definitions.

Overall description of the NECCS Fund

On 4 December 2021, the Danish Parliament signed a partial agreement as part of the Danish Financial Act of 2022. The agreement introduced a new market-based subsidy fund (the "NECCS Fund") ~~of DKK 2,559,609,240,000 (in 2023 prices)~~ to achieve negative CO₂ emissions by capturing and permanently, geologically storing biogenic or atmospheric CO₂ (NECCS)¹. The aim of the NECCS Fund is furthermore to contribute to the realization of Denmark's climate targets as outlined in the Danish Climate Act (Danish: "Klimaloven").

The DEA is responsible for managing the NECCS fund, which is scheduled for disbursement between the years of 2025 and 2032. The total maximum available subsidy of the NECCS Fund is DKK 2,559,200,000 (2023-prices) excl. VAT.

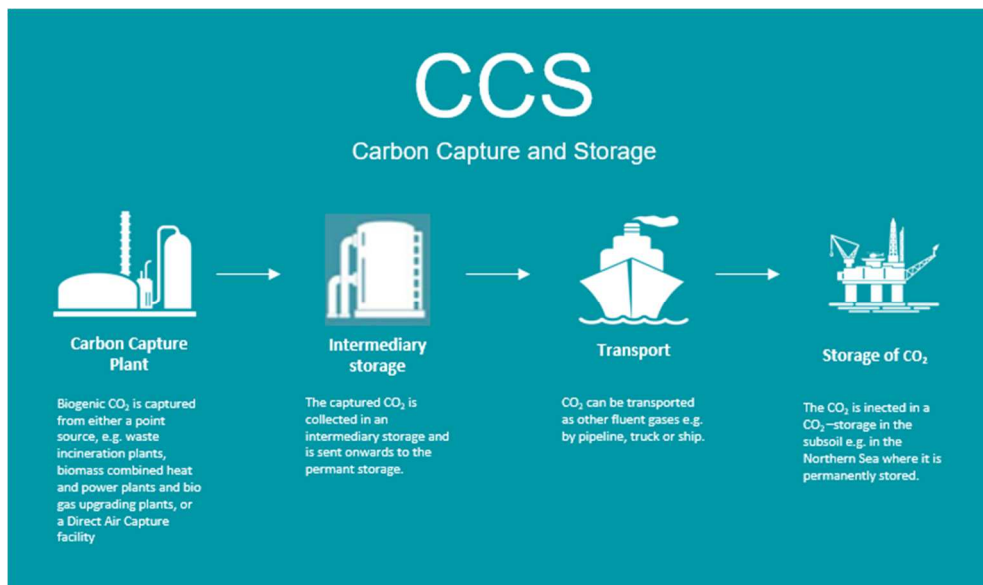
The aim of the fund is to achieve 0.5 million tons of permanent negative CO₂ emissions per year, through geological storage of biogenic or atmospheric CO₂ by granting financial support to one or more operators and supporting negative emissions CCS projects at any scale. The financial support will be disbursed for up to eight years as a fixed subsidy paid to the Operator per tonne CO₂ captured and permanently, geologically stored CO₂.

The fund provides financial support towards the costs of capture, transport, and permanent, geological storage of biogenic or atmospheric CO₂. The deployment of the fund intends to support a synchronized establishment of CO₂ capture, transportation, and storage. To ensure this, the Operator will be responsible for the entire CCS Value Chain.

¹ Agreement between the Government and the Green Left, the Danish Social Liberal Party, the Red/Green Alliance, the Alternative and the Christian Democrats concerning: The Financial Act for 2022 (6 December 2021) (Available in Danish at: <https://www.regeringen.dk/aktuelt/publikationer-og-aftaletekster/aftale-om-finansloven-for-2022/>).

The Operator has specified a subsidy per tonne for the Contracted Quantity, cf. Appendix 6, Offered Rate and Contracted Quantity, i.e., the Offered Rate. The Operator has furthermore specified the 2025-Quantity and the Annual Quantity in Appendix 6, Offered Rate and Contracted Quantity.

An example of the CCS Value Chain is illustrated below.



The Operator may be any economic operator or a group of operators willing to assume the responsibility for the value chain by performing the contract by itself and/or by engaging sub-suppliers. The Operator may achieve the negative emissions via CO₂ stored from one point source, a combination of point sources, or a portfolio of several point sources.

By biogenic CO₂, the DEA refers to CO₂ created through the combustion, digestion, fermentation, decomposition or processing of non-fossil fuels or feedstock. By atmospheric CO₂, the DEA refers to CO₂ from the ambient air, not the emissions from energy or industrial plants.

The NECCS Fund is not intended to provide subsidy for the capture and permanent, geological storage of CO₂ from the combustion or processing of fossil-based fuels or feedstock. Negative emissions based on non-geological CO₂ storage such as biochar created through pyrolysis of biomass, as well as non-technological means of capturing and storing CO₂, such as afforestation will not be applicable for financial support under the NECCS Fund.

Minimum Requirements

The following table outlines the Minimum Requirements (MR) to be fulfilled by the Operator.

No.	Minimum Requirement
MR-1	The Operator is responsible for the establishment and operation of the Value Chain.
MR-2	The Operator must ensure that all certificates, approvals, and permits necessary to establish and operate the Value Chain are obtained.
MR-3	The Operator shall ensure that the CO ₂ captured and permanently, geologically stored as part of the Contracted Quantity is of biogenic origin or atmospheric origin.
MR-4	The Operator shall ensure that the Delivered Quantity originates from (a) Carbon Capture Plant(s) placed in Denmark
MR-5	The Operator shall ensure that the Annual Quantity of CO ₂ is captured and permanently, geologically stored from year 2026 and until and including 2032.

General Requirements

This section outlines General Requirements (R) to be fulfilled by the Operator.

All documentation and reporting requirements shall be submitted to the DEA's contact person for the performance of the Contract, see clause 4.2 of the Contract.

R-1: Adjustment of the Solution Description

If the Operator for the purpose of Sub-appendix 4.A, Project Description, and Sub-appendix 4.B, Project Schedule, has assumed that the Contract was signed on ~~29 February~~ March 2024 and the Contract was signed at a later date – within the minimum time frame during which the Operator was obliged to maintain the offer – the Operator is not entitled to any postponement of any timing in the project, including the Commercial Operation Date, i.e., the Operator bears the risk of the exact timing of the signature of the Contract within the minimum time frame during which the Operator was obliged to maintain the offer.

The Operator shall, if relevant, make the necessary adjustments in Sub-appendix 4.A, Project Description, and Sub-appendix 4.B, Project Schedule, to cope with the time difference and submit the adjusted Sub-appendix 4.A, Project Description, and Sub-appendix 4.B, Project Schedule, for the DEA's review and approval 30 days after contract signing.

For other adjustments of the Solution Description reference is made to clause 3.5-3.6 of the Contract.

R-2: Ensuring accurate reporting and permanent, geological storage

The Operator shall ensure that the Delivered Quantity is measured and reported accurately to the DEA and permanently, geologically stored.

The Operator shall satisfy this requirement by ensuring that the Operator's storage site complies with the EU's CCS Directive (Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide) as implemented by the home country of the storage site from COD until end of Contract and is granted a storage permit prior to COD².

Furthermore, the Operator shall ensure that the storage site's quantity measurement system, i.e. flow meters, pressure and temperature sensors and density meters used to determine the injected quantity of CO₂, comply with ISO 27914:2017, or an equivalent standard, and have a maximum uncertainty of +/- 2.5% (as suggested in: "Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012, ("Annex VIII article 1 table 1").

The Operator shall submit a copy of the storage site's storage permit and documentation proving the quantity measurement system's compliance with ISO 27914:2017, or an equivalent standard, to the DEA contact person for the performance of the Contract no later than 3 three months prior to COD³.

If requested by DEA, the Operator must, at no extra cost to the DEA, change the quantity measurement system. Such changes may include changes of the methodology, system, components, procedures, etc. of the quantity measurement

² Including for the avoidance of doubt from the operation date of a Carbon Capture Plant if the Operator's performance of the Contract is based on more than one Carbon Capture Plant and the operation date of one or more of these Carbon Capture Plant(s) are before the COD.

³ Including for the avoidance of doubt from the operation date of a Carbon Capture Plant if the Operator's performance of the Contract is based on more than one Carbon Capture Plant and the operation date of one or more of these Carbon Capture Plant(s) are before the COD.

system. The Operator shall provide documentation of the implementation of the requested changes.

The Operator shall immediately notify the DEA's contact person for the performance of the Contract if the Operator's storage site fails to meet one or more of the requirements in the storage permit prior to COD⁴ or during the contract period and of any changes, temporary or permanent, to the storage site's quantity measurement system.

R-3: Information regarding the Carbon Capture Plant(s) of the Operator's Value Chain

If the Carbon Capture Plant(s) is not identified in Appendix 4, the Operator's Solution Description, at the time of submission of offer, the Operator shall inform the DEA of the address(es), cadastral number(s) and, if possible, the registration number for the Carbon Capture Plant(s) production unit (in Danish: "Produktionsenhed"/"P-nummer") as soon as possible, and not later than 12 months before the COD⁵.

R-4: Biogenic or atmospheric origin of Delivered Quantity

The Operator shall ensure that the Delivered Quantity is regarded as of biogenic origin or atmospheric origin.

Operators that are capturing CO₂ from point sources with solely biogenic CO₂ emissions shall satisfy this requirement by complying with the at any time applicable sustainability criteria for renewable energy production according to "Bekendtgørelse om bæredygtighed og besparelse af drivhusgasemissioner for biomassebrændsler og flydende biobrændsler til energiformål, m.v." (BEK nr 641 af 27/05/2023) and later amendments thereof concerning use of biomass and biomass fuel for the production of electricity, heating or fuels, including biogas.

Operators that are capturing CO₂ from point sources with mixed CO₂ emissions (i.e. emissions containing both a biogenic and fossil CO₂ fraction) shall satisfy this requirement by complying with the applicable requirements of Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 "on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012" and Commission Implementing Regulation (EU) 2018/2067 of 19 December 2018 "on the verification of data and on the accreditation of verifiers

⁴ [Including for the avoidance of doubt from the operation date of a Carbon Capture Plant if the Operator's performance of the Contract is based on more than one Carbon Capture Plant and the operation date of one or more of these Carbon Capture Plant\(s\) are before the COD.](#)

⁵ [Including for the avoidance of doubt from the operation date of a Carbon Capture Plant if the Operator's performance of the Contract is based on more than one Carbon Capture Plant and the operation date of one or more of these Carbon Capture Plant\(s\) are before the COD.](#)

pursuant to Directive 2003/87/EC of the European Parliament and of the Council” and any rules that may amend or supersede these rules.

For Operators that are capturing atmospheric CO₂ based on direct air capture, the Operator shall - when regulation concerning documentation of the origin of atmospheric CO₂ exist - comply with such requirements.

R-5: Post-capture accounting of Delivered Quantity

The Operator shall ensure and document that the Delivered Quantity reported in accordance with R-4 originates from the Carbon Capture Plant(s) encompassed by the Contract.

The Operator shall satisfy this requirement by ensuring that all transport and storage activities of the Operator’s Value Chain complies with the applicable rules, procedures and standards described in Commission Implementing Regulation (EU) 2018/2066 and Commission Implementing Regulation (EU) 2018/2067 and any rules that may amend or supersede these rules.

From Commercial Operation Date⁶ until end of the Contract, the Operator shall ensure that the monitoring and reporting of all transport and storage activities of the Operator’s Value Chain are verified annually in accordance with Commission Implementing Regulation (EU) 2018/2066 and Commission Implementing Regulation (EU) 2018/2067 and any rules that may amend or supersede these rules.

The annual verification shall be carried out by EU ETS Third-Party verifiers that are accredited in accordance with Commission Implementing Regulation (EU) 2018/2067 and any rules that may amend or supersede these rules and holds CCS-related accreditation certificates as described in Annex I of Commission Implementing Regulation (EU) 2018/2067.

R-6: Quarterly Report on Delivered Quantity

The Operator shall no later than 10 Business Days after the end of every quarter from Commercial Operation Date⁷ until end of Contract provide the DEA with a Quarterly Report on Delivered Quantity. The Quarterly Report on Delivered Quantity in the last quarter of a year shall be submitted to the DEA no later than 10 January of the following year.

The Quarterly Report shall cover:

⁶ Including for the avoidance of doubt from the operation date of a Carbon Capture Plant if the Operator’s performance of the Contract is based on more than one Carbon Capture Plant and the operation date of one or more of these Carbon Capture Plant(s) are before the COD.

⁷ Or – to the extent that the Operator’s performance of the Contract is based on more than one Carbon Capture Plant and the operation date of one or more of these Carbon Capture Plant(s) are before the COD – after the end of every quarter from the operation date of the first Carbon Capture Plant.

- The Delivered Quantity within the preceding quarter.
- An accounting of the total Delivered Quantity in the given year of operation and the degree to which the Contracted Quantity of the given year of operation has been fulfilled.
- A forecast of total Delivered Quantity in the given year of operation.

The Quarterly Report shall furthermore contain documentation demonstrating that the reported data originates from the Operator's storage site and complies with the requirements for metering specified in R-2.

R-7: Annual Report on the Delivered Quantity

The Operator shall annually from COD⁸ until end of Contract compile a report containing documentation and verification of the Delivered Quantity in the given year. The Annual Report shall include:

- A copy of the sustainability report for the use of solid biomass fuels or biogas as described in chapter 4 of "Bekendtgørelse om bæredygtighed og besparelse af drivhusgasemissioner for biomassebrændsler og flydende biobrændsler til energiformål, m.v." (BEK nr 641 af 27/05/2023). This requirement applies only for Operators that are capturing CO₂ from point sources with solely biogenic CO₂ emissions.
- A copy of the annual emission report(s) and verification report(s) as described in Commission Implementing Regulation (EU) 2018/2066 from the Operator's point source(s). This requirement applies only for Operators that are capturing CO₂ from point sources with mixed CO₂ emissions (i.e. emissions containing both a biogenic and fossil CO₂ fraction).
- A copy of the annual emission report(s) and verification report(s) as described in Commission Implementing Regulation (EU) 2018/2066 from the transport and storage activities of the Operator's Value Chain.
- A copy of the annual storage site report described in the EU's CCS Directive, containing all data and information pursuant to Article 14 of the EU's CCS Directive on e.g. the quantities and properties of the CO₂ streams delivered and injected, including composition of those streams in the reporting period.

The Operator shall submit the Annual Report on the Delivered Quantity no later than 31 March in the following year.

⁸ Or – to the extent that the Operator's performance of the Contract is based on more than one Carbon Capture Plant and the operation date of one or more of these Carbon Capture Plant(s) are before the COD – after the end of every quarter from the operation date of the first Carbon Capture Plant.