



# APPENDIX 3

## REQUIREMENTS SPECIFICATION

Contract on subsidy for 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 CCS 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.*

*Minimum Requirement MR-1 and MR-5 refers to the Contract. MR-1 and MR-5 entails that the obligation of the Minimum Requirement, e.g. being responsible for achieving CO<sub>2</sub> emission reductions shall be fulfilled in accordance with the terms of the Contract but does not entail that the provisions of the Contract are Minimum Requirements, see also 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 CCS 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 CCS Fund

With the agreement on a strengthened framework for CCS in Denmark (in Danish: "*Aftale om styrkede rammevilkår for CCS i Danmark*") of 20 September 2023, a majority of the Danish Parliament decided to merge the second phase of the CCUS fund<sup>1</sup> and the GSR fund<sup>2</sup> into one combined fund, the "CCS Fund". Since then, a political decision has been made to deploy the CCS fund through one bidding round.

The CCS Fund's total budget amounts to 28,659,200,000 DKK (2025-prices) (including VAT and coverage of potential derived tax losses),<sup>3</sup> covering the period from 2029 to (and including) 2044.

The purpose of the CCS Fund is to achieve CO<sub>2</sub> emission reductions and/or negative emissions by Storing Fossil and/or Biogenic and/or Atmospheric CO<sub>2</sub>. The overarching aim of the CCS Fund is thus to contribute to the realization of Denmark's climate targets as outlined in the Danish Climate Act.<sup>4</sup>

The fund provides financial support towards the costs of capture, transport, and Storage of Biogenic, Fossil and/or Atmospheric CO<sub>2</sub>. The deployment of the fund intends to support a synchronized establishment of CO<sub>2</sub> capture, transportation, and Storage. To ensure this, the Operator will be responsible for achieving the CO<sub>2</sub> emission reductions and/or negative CO<sub>2</sub> emissions in accordance with the Contract.

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<sup>1</sup> As established by the Danish Climate Agreement for Energy and Industry of 22 June 2020

<sup>2</sup> As established by the Agreement on green tax reform for industry of 24 June 2022

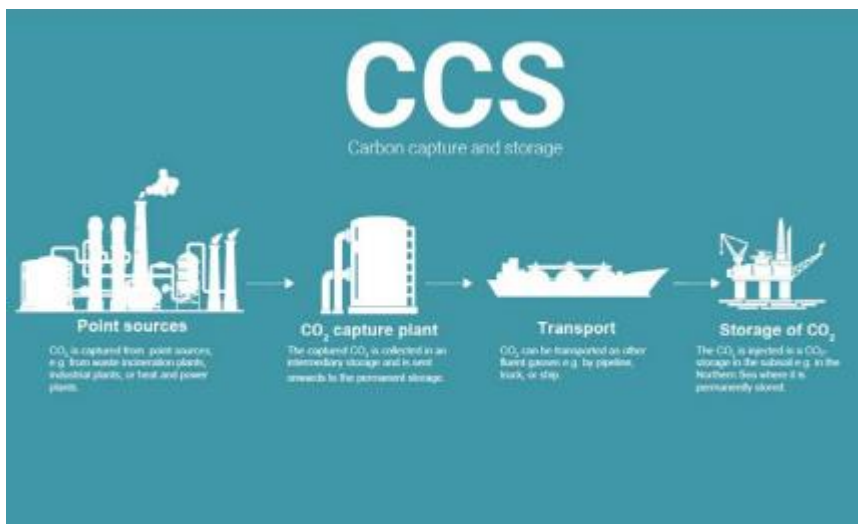
<sup>3</sup> In Danish: "afledt afgiftstab"

<sup>4</sup> In Danish: "Klimaloven"

The financial support will be disbursed for up to 16 years as a subsidy paid to the Operator per tonne CO<sub>2</sub> captured and Stored.

The Operator has specified a Subsidy per tonne for the Contracted Quantity, cf. Appendix 6, Offered Rate, Contracted Quantity and baselines, i.e., the Offered Rate. The Operator has furthermore specified the 2029-Quantity, if offered by the Operator, and the Annual Quantity in Appendix 6, Offered Rate, Contracted Quantity and baselines.

An example of the CCS Value Chain is illustrated below.



The Operator may base their project on CO<sub>2</sub> capture from one point source or direct air capture plant, a combination of point sources or direct air capture plants or a portfolio of several point sources or direct air captures plants. The Operator may be any economic operator or a group of operators willing to assume the responsibility for achieving the CO<sub>2</sub> emission reductions and/or negative CO<sub>2</sub> emissions in accordance with the Contract by performing the Contract by itself and/or by engaging Sub-Suppliers.



## Minimum Requirements

The following table outlines the Minimum Requirements (MR).

| No.  | Minimum Requirement  |
|------|--|
| MR-1 | The Operator is responsible for achieving CO <sub>2</sub> emission reductions and/or negative CO <sub>2</sub> emissions in accordance with the Contract.   |
| MR-2 | The Operator must ensure that all certificates, approvals, licences and permits necessary to establish and operate the Value Chain are obtained.   |
| MR-3 | The Operator shall ensure that the Delivered Quantity originates from (a) Carbon Capture Plant(s) placed in Denmark.   |
| MR-4 | The Operator shall ensure that the Annual Quantity of CO <sub>2</sub> which as a minimum shall be 100,000 tonnes of CO <sub>2</sub> is captured and Stored each calendar year from year 2030 and until and including 2044. |
| MR-5 | The Operator shall be paid Subsidies per tonne of CO <sub>2</sub> captured and Stored in accordance with the Contract.   |

## General Requirements

This section outlines the General Requirements (R).

All documentation, reporting and notifications that shall be submitted to the DEA in accordance with the requirements in this appendix shall be sent to the DEA's contact person for the performance of the Contract, see Appendix 9, Contact persons.

Commercial Operation Date (COD) means the date when the Operator shall commence the operation of the full Value Chain. If the Operator's performance of the Contract is based on more than one Carbon Capture Plant, operation of the full Value Chain (i.e. COD) encompasses operation of all Carbon Capture Plants.<sup>5</sup>

If the Operator's performance of the Contract is based on more than one Carbon Capture Plant and the date of commencement of operation of one or more of these

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<sup>5</sup> For the avoidance of doubt, it will be possible for the Operator to receive subsidy for CO<sub>2</sub> captured and Stored before COD in case the date of commencement of operation of one or more of the Operator's Carbon Capture Plant(s) are before COD.



Carbon Capture Plant(s) are before the COD, the obligations in R-2, R-4, R-5, R-6, R-7 and R-8 concerning deadlines that are connected to COD shall be adjusted to also match the date of commencement of operation of the(se) Carbon Capture Plant(s). This entails that the Operator's compliance with the aforementioned requirements shall also be based on the date of commencement of operation of Carbon Capture Plant(s) that commences operations before COD.<sup>6</sup>

### **R-1: Adjustment of the Solution Description**

If the Operator for the purpose of Sub-appendix 4.A, Project Description, Sub-appendix 4.B, Project Schedule, Sub-appendix 4.C, Authority Approval Plan and Sub-appendix 4.D, Risk Management Plan has assumed that the Contract was signed on 30 April ~~2025~~2026 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 COD, 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, Sub-appendix 4.B, Project Schedule, Sub-appendix 4.C, Authority Approval Plan and Sub-appendix 4.D, Risk Management Plan, to cope with the time difference and submit the adjusted Sub-appendix 4.A, Project Description, Sub-appendix 4.B, Project Schedule, Sub-appendix 4.C, Authority Approval Plan and Sub-appendix 4.D, Risk Management Plan, 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 of the Contract.

### **R-2: Information regarding the point source(s) and Carbon Capture Plant(s) of the Operator's Value Chain**

If the point source(s) and/or the Carbon Capture Plant(s) on which the Operator will base the capture of CO<sub>2</sub> is not identified by the below mentioned information in Sub-Appendix 4.A, Project Description, at the time of submission of offer, the Operator shall inform the DEA of the following as soon as possible, and no later than 12 months before COD:

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<sup>6</sup> This means for example in relation to R-2 that if the COD is on 1 January 2030, but the date of commencement of operation of one of the Carbon Capture Plants is on 1 April 2029, the Operator shall provide the DEA with the information in R-2 for that Carbon Capture Plant no later than 12 months before 1 April 2029.



- The address(es), cadastral number(s), and if possible, the registration number, and production unit (in Danish: "Produktionsenhed"/"P-nummer") for the point sources(s) and/or in case of direct air capture of atmospheric CO<sub>2</sub> such information for the location of the direct air capture plant; and
- The expected annual capture capacity of the Carbon Capture Plant(s).

### **R-3: Demonstrate operational capacity of Carbon Capture Plant(s) in 2029**

#### Requirement description:

The Operator shall demonstrate operation of the Carbon Capture Plant(s) encompassed by the Contract no later than 1 December 2029.

#### Compliance with this requirement:

The Operator shall satisfy this requirement by ensuring that a minimum of 1,000 tonnes of CO<sub>2</sub> is captured in the period from 1 December 2029 until 31 December 2029. If the Operator's performance is based on more than one Carbon Capture Plant, the minimum of 1,000 tonnes CO<sub>2</sub> in total shall be based on proportions from each of the plants.

The Operator shall submit documentation to the DEA demonstrating the compliance with the requirement no later than 10 January 2030.

This requirement is deemed irrelevant if the date of COD is scheduled before or on the 1 December 2029 as stated by the Operator in Sub-Appendix 4.B, Project Schedule.

### **R-4: Ensuring accurate Storage site injection data & Storage**

#### Requirement description:

The Operator shall ensure that the Contracted Quantity is Stored, measured and reported accurately to the DEA.

#### Compliance with this requirement:

The Operator shall satisfy this requirement by ensuring that the Operator's Storage site [is granted a Storage permit prior to COD and](#) complies with the EU's CCS Directive as implemented by the home country of the Storage site from COD until the end of the Contract ~~and is granted a Storage permit prior to COD.~~

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 CO<sub>2</sub>, comply with ISO 27923:2022 or an equivalent standard, and have a maximum uncertainty of +/- 2.5% from COD until the end of the Contract.

The Operator shall submit the following to the DEA no later than 3 (three) months prior to COD:

- A copy of the Storage site's Storage permit;
- Documentation, proving that the Storage site's quantity measurement system complies with ISO 27923:2022 (or an equivalent standard);
- Documentation, proving that the Storage site's injection of CO<sub>2</sub> has a maximum uncertainty of +/- 2.5%

If requested by the DEA, the Operator must, at no extra cost to the DEA, change the quantity measurement system if a new and improved standard is established. Such changes may include changes of the methodology, system, components, procedures, etc. of the quantity measurement system. The Operator shall submit to the DEA documentation of the implementation of the requested changes.

The Operator shall immediately notify the DEA if the Operator's Storage site fails to meet one or more of the requirements in the Storage permit prior to COD or during the contract period and of any changes, temporary or permanent, to the Storage site's quantity measurement system.

#### **R-5: Accounting of Delivered Quantity**

##### Requirement description:

The Operator shall ensure and document that the Delivered Quantity originates from the Carbon Capture Plant(s) encompassed by the Contract.

##### Compliance with this requirement for Operators capturing CO<sub>2</sub> from installations encompassed by Directive 2003/87/EC:

Operators capturing CO<sub>2</sub> from installations encompassed by Directive 2003/87/EC shall satisfy this requirement by ensuring that all capture, transport and Storage activities of the Operator's Value Chain comply with the applicable rules, procedures and standards described in Commission Implementing Regulation (EU) 2018/2066 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC and Commission Implementing Regulation (EU) 2018/2067 and any rules, including national rules, that may amend or supersede these rules.





From COD until the end of the Contract, the Operator shall ensure that the monitoring and reporting of all CO<sub>2</sub> capture, 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 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC and any rules, including national rules, that may amend or supersede these rules.

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

Compliance with this requirement for Operators capturing CO<sub>2</sub> from installations not encompassed by Directive 2003/87/EC:

Operators capturing CO<sub>2</sub> from installations not encompassed by Directive 2003/87/EC – such as e.g. biogas plants - 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 530 af 28/05/2024) and later amendments thereof concerning use of biomass and biomass fuel for the production of electricity, heating or fuels, including biogas.

The Operator shall furthermore satisfy the requirement by ensuring that all transport and Storage activities of the Operator's Value Chain comply 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, including national rules that may amend or supersede these rules.

From COD until the 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, including national rules, that may amend or supersede these rules.

The annual verification shall be carried out by EU ETS Third-Party verifiers who i) are accredited in accordance with Commission Implementing Regulation (EU) 2018/2067 and any rules, including national rules, that may amend or supersede



these rules and ii) hold CCS-related accreditation certificates as described in Annex I of Commission Implementing Regulation (EU) 2018/2067.

Compliance with the requirement for Operators capturing CO<sub>2</sub> by direct air capture:

For Operators that are capturing Atmospheric CO<sub>2</sub> based on direct air capture, the Operator shall - when regulation concerning documentation of the origin of Atmospheric CO<sub>2</sub> exist - comply with such requirements.

The DEA is entitled to require the Operator to submit documentation regarding the Operator's compliance with such requirements.

**R-6: Forecast for the following year**

The Operator shall prior to a given year of operation report a forecast to the DEA, which shall include the following:

- The expected total quantity of CO<sub>2</sub> for the following year (the Annual Forecast Quantity) – the Annual Forecast Quantity is not to exceed the Annual Quantity;
- The fossil fraction of CO<sub>2</sub> of the Annual Forecast Quantity which would have required EUA if not captured and Stored (the Forecast Fossil EUA Fraction) for the following year;
- The amount of Emission Tax and CO<sub>2</sub> Tax that would have been subject to payment for the following year if the Annual Forecast Quantity had not been Stored (the Forecast Total Tax Savings); and
- The expected income in DKK generated by Carbon Credits related to the storage of CO<sub>2</sub> in accordance with the Contract for the following year (the Forecast Total Carbon Credit Income). For the avoidance of doubt, this requirement applies regardless of whether the offer specified income generated by sale of Carbon Credits related to the storage of CO<sub>2</sub> for each year (the Baseline Total Carbon Credits Income). If no income is expected for the following year, this shall be stated.

If future legislation entails that participation in the EU Emissions Trade Scheme (ETS), or a similar EU-mandated trade scheme, becomes either mandatory for emitters of Biogenic CO<sub>2</sub> or voluntary for emitters of Biogenic CO<sub>2</sub> and operators capturing Atmospheric CO<sub>2</sub>, the forecast shall also include the forecast biogenic/atmospheric allowances fraction of the Delivered Quantity (the Forecast Biogenic Allowances Fraction / the Forecast Atmospheric Allowances Fraction).



The Operator shall report the forecast for the following year to the DEA no later than 15 August in a given year, including in the year prior to COD.

#### **R-7: Quarterly Report on Invoiced Quantity**

No later than 10 Business Days after the end of every quarter from COD until the end of Contract, the Operator shall submit to the DEA 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 on Delivered Quantity shall include:

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

If the Operator's performance of the Contract is based on more than one point source and/or more than one Carbon Capture Plant, the information shall be provided as the collected numbers covering all point source(s) and/or Carbon Capture Plant(s).

The Quarterly Report shall furthermore contain documentation demonstrating that the reported data originates from the Operator's Storage site.

#### **R-8: Annual Report on the Delivered Quantity**

The Operator shall annually from COD until end of Contract compile a report containing documentation and verification of the Delivered Quantity in the given year, determining the Delivered Quantity, the composition of the CO<sub>2</sub> and the Carbon Credits income as well verifying the point source origin(s) of Stored quantity of CO<sub>2</sub>.

The Annual Report shall include:

- A specification of the Verified Delivered Quantity in the given year;
- A specification of the actual fossil fraction of the Verified Delivered Quantity which would have required EUA if not captured and Storage (the Actual Fossil EUA Fraction);
- A specification of the Operator's total Emission Tax and CO<sub>2</sub> Tax that would have been subject to payment if the Verified Delivered Quantity had not been Stored (the Actual Total Tax Savings);



- A statement regarding the actual income in DKK generated by any Carbon Credits related to the storage of CO<sub>2</sub> in accordance with the Contract (the Actual Total Carbon Credit Income). For the avoidance of doubt, this requirement applies regardless of whether the offer specified income generated by Carbon Credits related to the storage of CO<sub>2</sub> for each year (the Baseline Total Carbon Credit Income). If no income has been generated, this shall be stated. If the Actual Total Carbon Credit Income differs from the Forecast Total Carbon Credit Income, the statement shall describe the reason for such difference. The statement shall prove that the income is correct based on the bookkeeping and financial report for the given year of the company, which achieved the income (e.g. where relevant, the Operator or a Sub-Supplier). The statement shall be signed by the company and an auditor;
- A copy of the annual emission report(s) and verification report(s) as described in Commission Implementing Regulation (EU) 2018/2066 based on the Operator's capture activities. This requirement applies only for Operators capturing CO<sub>2</sub> from installations encompassed by Directive 2003/87/EC;
- 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 530 af 28/05/2024). This requirement applies only for Operators capturing CO<sub>2</sub> from installations not encompassed by Directive 2003/87/EC;
- 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 CO<sub>2</sub> streams delivered and injected, including composition of those streams in the reporting period;
- Documentation of the compliance with the metering requirements in R-2, i.e.:
  - Documentation, proving that the Storage site's quantity measurement system complies with ISO 27923:2022 (or an equivalent standard); and
  - Documentation, proving that the Storage site's injection of CO<sub>2</sub> has a maximum uncertainty of +/- 2.5 %.



- A copy of the monthly statement of tax reimbursement regarding CO<sub>2</sub> Tax and Emission Tax in the given year for the point source(s) on which the Operator bases its performance of the Contract.

If future legislation entails that participation in the EU Emissions Trade Scheme (ETS), or a similar EU-mandated trade scheme, becomes either mandatory for emitters of Biogenic CO<sub>2</sub> or voluntary for emitters of Biogenic CO<sub>2</sub> and operators capturing Atmospheric CO, the Annual Report shall also include the actual biogenic/atmospheric allowances fraction of the Delivered Quantity (the Actual Biogenic Allowances Fraction / the Actual Atmospheric Allowances Fraction).

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

#### **R-9: Notification of QHSE related accidents**

From the date of signing of the Contract until the end of the Contract, the Operator shall notify the DEA without undue delay of any QHSE ("Quality, Health, Safety and Environment") related accident, which has occurred as part of the establishment and operation of the Operator's Value Chain.

By accident is meant an event that has unintentionally happened, which results in damage, injury, or harm to persons or the environment.

#### **R-10 CO<sub>2</sub> capture from combined heat and power plants**

To the extent that the Operator captures and Stores CO<sub>2</sub> from a combined heat and power plant (with the exception of waste incineration plants) under this Contract, the Operator shall ensure that, from 1 January 2030, no more than 10 % of such CO<sub>2</sub> originates from fossil energy sources.

#### **R-11: Updates to the Project Schedule and Authority Approval Plan**

Each quarter from the date of the signing of the Contract, the Operator shall submit to the DEA an update on the Project Schedule and the Authority Approval plan. Updates on the Project Schedule shall be submitted until COD and updates on the Authority Approval Plan shall be submitted to the DEA until the end of the Contract.

The update shall include the status and actual progress of the Project Schedule and Authority Approval Plan. The update shall furthermore include the expected progress for the next quarter.



The update shall be submitted to the DEA no later than 10 Business Days after the end of every quarter.

For the avoidance of doubt, the Operator shall follow the change management process as set out in clause 3.5 of the Contract and Appendix 8, Change management, in case of changes to the Project Schedule and Authority Approval Plan.

#### **R-12: The Authority Approval Plan**

If the Operator in Sub-appendix 4.C, Authority Approval Plan, for a specific permit, approval, licence or certificate has provided a time span for the time of submission and expected approval from authorities and/or third parties of that specific permit, approval, licence or certificate, the last date in the time span shall be considered as the time of submission and/or expected approval.

#### **R-13: Information Security Management System (ISMS)**

The Operator shall implement, operate and maintain an Information Security Management System (ISMS) in accordance with ISO27001, or equivalent to ensure compliance with the NIS2 Directive and the integrity, confidentiality and availability of data, both at rest and in transit when reporting to the DEA.