

# 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 Project Description and requirements specification and states requirements for the services to be provided under the Contract.

The requirements are divided into Minimum Requirements (MR) and General Requirements (R), see 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.

The Appendix is supplemented by a solution description (Appendix 4), which is the Tenderer's response to and description of how the Tenderer complies with the Project Description and the requirements, as specified in this Appendix.

The Tenderer's responses to the overall solution description, the Financial Requirements, the Technical Requirements, and the Operational Requirements are included in the evaluation of Offers as specified in Appendix A, Offer evaluation.

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



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### Introduction

This Appendix contains the Project Description and Requirements specification.

All requirements are listed in a table format with reference to the relevant phase and a description of the requirement. Each requirement has a unique number assigned for easy reference in communication and in the Operator's Solution description, etc.

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

### **Project Description**

The Danish Energy Agency (DEA) is responsible for the deployment of the CCUS fund, technologically neutral and market-based funds worth DKK 16 billion, which are scheduled for deployment between 2025-2048.

The CCUS fund is to be deployed in two phases, the first phase with the purpose of deployment of a maximum of DKK 8.168 billion for the purpose of capture and permanent storage of CO<sub>2</sub> from 2025-2044. The Contract shall only implement the first phase.

The purpose of the fund is to ensure that the CO<sub>2</sub> reductions stipulated in the fund, a minimum of 8 million tonnes CO<sub>2</sub> by the end of 2044 or earlier, are achieved and count as reductions in Denmark's National Inventory Report.

A version of the CCS Value Chain is illustrated below.

CCS

Carbon capture and storage

CO2 capture plant
The captured CO2 is collected in an intermediary storage and is sent orwards to the permanent storage.

CO3 is captured from point sources, eg from waste incireration plants, industrial plants, or heal and power plants.

Transport
CO3 can be transported as other fluering assess eg, by pipeline, truck, or ship.

Storage of CO2
The CO2 is injected in a CO2-storage in the subsoil e g, in the Northern Sea where it is permanently stored.



The Operator shall ensure a "Minimum Quantity" of 0.4 million tonnes  $CO_2$  annually (MTA) from year 2026 (see MR-4). Furthermore, the Operator has specified the quantity of  $CO_2$  that the Operator shall be obliged to achieve from start of Operation and until 31 December 2025 (i.e., "Ramp-up Quantity"). Additionally, the Operator has specified the quantity of  $CO_2$  above the Minimum Quantity that the Operator shall be obliged to achieve annually from year 2026 (i.e., "Additional Quantity".) See Table 1.

The Operator may deliver the reductions with one point source, a combination of point sources, or a portfolio of several point sources.

The Operator has specified a Subsidy per tonne, cf. Appendix 7, Subsidy and costs, as a combined rate (i.e., Offered Rate) for the Minimum Quantity, the Ramp-Up Quantity, and the Additional Quantity (as specified in Table 1).

Table 1: The Contracted Quantity

Minimum Quantity	Delivery of 0.4 MTA CO <sub>2</sub> per year from year 2026 until end of Contract
Ramp-up Quantity	Delivery of CO <sub>2</sub> from start of Operation and until 31 December 2025
Additional Quantity	Delivery of > 0.4 MTA CO <sub>2</sub> per year from year 2026

The Ramp-up Quantity and the Additional Quantity are specified by the Operator in Appendix 7, Subsidy and costs.

Collectively, the Minimum Quantity, the Ramp-up Quantity and the Additional Quantity are referred to as the "Contracted Quantity" (see R-16).

The DEA does not provide asset-related ("CAPEX") support to projects, development, construction or similar. The Operator is not remunerated or compensated for any costs by the DEA other than through the Subsidy per tonne  $CO_2$ .

The payment profile is based on the political agreement (KEI2020), which determines an annual deployment profile cf. Appendix 6, Subsidy and economy scheme, regarding the Annual Subsidy Cap.



The Operator cannot receive payment exceeding the allocated annual Subsidy for the first phase, as specified in Appendix 6, Subsidy and economy scheme. The DEA has specified the maximum available subsidy amount per year. No unused amount within the Annual Subsidy Cap can be transferred to subsequent years.

The maximum/limit on the annual allocated Subsidy does not exempt the Operator from delivering the Contracted Quantity in any given year. If a situation occurs where the adjusted Subsidy multiplied by the Contracted Quantity exceeds the annual allocated Subsidy, the Operator shall be obliged to achieve the Contracted Quantity for a Subsidy not exceeding the annual allocation.

If the Operator achieves a larger quantity than the Contracted Quantity (i.e. the Planned Quantity, see Table 2) in any given year, the Operator may receive Subsidy for such larger quantity if and to the extent that there are available funds within the limits of the maximum allocated Subsidy. Reference is made to Appendix 6, Subsidy and economy scheme.

Table 2: Contracted and Planned Quantity

Contracted Quantity	The quantity, which the Operator commits to deliver as a part of its BAFO, and which therefore will be part of the evaluation.
Planned Quantity	The quantity, which the Operator plans to deliver and which is the basis for the Operator's Business plan. The quantity (being an excess quantity added to the Contracted Quantity) is not part of the evaluation as described in Appendix A, Offer evaluation.

The Subsidies are available for payment to the Operator in accordance with the Contract from the Commercial Operation Date (the date from which the Operator commences operation of the full Value Chain) with an Annual Subsidy Cap applicable for each year of the Contract, i.e. 2025-2044. However, to the extent that the Operator's performance is based on more than one carbon capture plant and the carbon capture plants commence operation on different times, the Subsidies are available for payment to the Operator in accordance with the Contract for Delivered Quantity from the carbon capture plant in operation before the Commercial Operation Date.

If the Operator has transferred Subsidy from 2025 to 2045 in accordance with Appendix 6, the amount of Subsidy available for 2025 is specified in Appendix 7, Subsidy and costs (tab "Offered Rate and Subsidy Cap 2025").



### **Project phases**

The requirements set out in this document comprise of three main phases (some requirements span multiple or all phases):

#### 1. Pre-construction Phase

<u>Pre-Construction Phase means the phase encompassing, among other activities, the Operator's obtaining of permits, approvals, etc. necessary for the construction of the carbon capture plant(s) and other assets required for the performance of the CCS Activities.</u>

The Pre-construction Phase encompasses all the work prior to the beginning of the physical constructions. The outcome of this phase shall include validated project plans, validated or new designs created, acquisition and documentation of necessary permits and licenses, and documentation substantiating access to supplies and labour.

#### 2. Construction Phase

Construction Phase means the phase encompassing, among other activities, the Operator's completion of the construction of the carbon capture plant(s) and other assets required for the performance of the CCS Activities. Hence, the Construction Phase lasts until the Commercial Operation Date. The Construction Phase is the physical process, where the Operator initiates the construction required to operate the full Value Chain and all other associated activities such as landscaping, refurbishing, site clearance, testing, demolition, etc.

### 3. Operation & Maintenance Phase

Operation & Maintenance Phase means the phase initiated upon the Commercial Operation Date of the full Value Chain, cf. Programme

Milestone 3.1, Appendix 5, Master Milestone Plan and encompassing, in particular, the Operator's achievement of the CO<sub>2</sub> reductions as required in the Contract. The Operation & Maintenance Phase lasts until end of Contract. The Operation & Maintenance Phase is the phase, where the Operator starts capturing CO<sub>2</sub> and utilising the established Value Chain for permanently storing the CO<sub>2</sub>.



### Overview of Operator's Deliverables

The tables below provide an overview of the greater part of the Operator's Deliverables including documents provided as part of the Operator's Best and Final Offer (BAFO). The overview is split in three delivery categories: From Indicative Offer (INDO) up to and including BAFO, 30 days after Contract Signing, and after Contract Signing.

### **Delivery: From Indicative Offer to Best and Final Offer**

<del>Deliverable</del>	Time of Delivery	Requirement
<del>Draft Milestone Plan</del>	From INDO up to and including BAFO	R-1
Example of Milestone Plan Report	From INDO up to and including BAFO	R-1
Draft Authority Approval Plan	From INDO up to and including BAFO	<del>R-2</del>
Draft Risk Management Plan	From INDO up to and including BAFO	<del>R-3</del>
<del>Draft risk log</del>	From INDO up to and including BAFO	<del>R-3</del>
<del>Draft risk assessment plan</del>	From INDO up to and including BAFO	R-3
Draft risk assessment matrix	From INDO up to and including BAFO	<del>R-3</del>
<del>Draft risk log</del>	From INDO up to and including BAFO	<del>R-3</del>
<del>Draft QHSE Plan</del>	From INDO up to and including BAFO	R-4
QHSE log	From INDO up to and including BAFO	R-4
QHSE report	From INDO up to and including BAFO	R-4
Inspection Procedure	From INDO up to and including BAFO	R-4
Draft Knowledge Sharing Plan	From INDO up to and including BAFO	<del>R-5</del>
Example of knowledge sharing summary report	From INDO up to and including BAFO	<del>R-5</del>
Draft of Public Engagement Plan	From INDO up to and including BAFO	R-6
Draft Construction Interface Procedure	From INDO up to and including BAFO	R-10
Draft Financing Plan	From INDO up to and including BAFO	R-11



Draft Financing Model Summary Sheet	From INDO up to and including BAFO	R-11
Draft Business Plan	From INDO up to and including BAFO	R-12
Draft Business Model Summary Sheet	From INDO up to and including BAFO	<del>R-12</del>
Draft Technical Design	From INDO up to and including BAFO	R-13
Draft Total design verification plan	From INDO up to and including BAFO	R-13
Draft Test and Commissioning Plan	From INDO up to and including BAFO	R-14
<del>Draft Test event log</del>	From INDO up to and including BAFO	R-14
Example of Report on CO <sub>2</sub> production subject to the EU ETS	From INDO up to and including BAFO	R-18
Description of the measurement system for CO <sub>2</sub> storage reporting	From INDO up to and including BAFO	R-19
Draft CO <sub>2</sub> Origin Verification	From INDO up to and including BAFO	R-20

### **Delivery: 30 days after Contract Signing**

Deliverable	Time of delivery	Requirement
Master Milestone Plan	Contract Signing + 30 days	<del>R-1</del>
Milestone Plan Report	Contract Signing + 30 days	<del>R-1</del>
Authority Approval Plan	Contract Signing + 30 days	<del>R-2</del>
Risk Management Plan	Contract Signing + 30 days	<del>R-3</del>
Risk assessment plan	Contract Signing + 30 days	<del>R-3</del>
Risk assessment matrix	Contract Signing + 30 days	<del>R-3</del>
Risk log	Contract Signing + 30 days	<del>R-3</del>
<del>QHSE Plan</del>	Contract Signing + 30 days	<del>R-4</del>



QHSE log	Contract Signing + 30 days	<del>R-</del> 4
QHSE report	Contract Signing + 30 days	<del>R-</del> 4
Inspection Procedure	Contract Signing + 30 days	<del>R-</del> 4
Knowledge Sharing Plan	Contract Signing + 30 days	<del>R-5</del>
Knowledge sharing summary report	Contract Signing + 30 days	R-5
Public Engagement Plan	Contract Signing + 30 days	R-6
Construction Interface Procedure	Contract Signing + 30 days	R-10
Financing Plan	Contract Signing + 30 days	R-11
Financing model summary sheet	Contract Signing + 30 days	R-11
Business Plan	Contract Signing + 30 days	R-12
Business model summary sheet	Contract Signing + 30 days	R-12
Technical Design	Contract Signing + 30 days	R-13
Total design verification plan	Contract Signing + 30 days	R-13
Test and Commissioning Plan	Contract Signing + 30 days	R-14
<del>Test event log</del>	Contract Signing + 30 days	R-14
CO <sub>2</sub> -Origin Verification Plan	Contract Signing + 30 days	<del>R-20</del>

### **Delivery: After Contract Signing**

<del>Deliverable</del>	Time of delivery	Requirement
Milestone Plan Report	The Milestone Plan Report shall	<del>R-1</del>
	be submitted to the DEA as part	
	of the Quarterly Meetings, cf.	
	Appendix 8, Governance.	
Authority Approval Plan	Update on the Authority	<del>R-2</del>
	Approval Plan as part of the	
	Quarterly Meetings with the DEA	



	I	
	during the Pre-construction and	
	Construction Phase cf. Appendix	
	8, Governance.	
Risk Management Plan	Update of the Risk Management	<del>R-3</del>
	Plan as part of the Quarterly	
	Meetings with the DEA during	
	the Contract cf. Appendix 8,	
	Governance.	
QHSE Plan	QHSE Plan as part of the	<del>R-</del> 4
	Quarterly Meetings with the DEA	
	during the Contract, cf.	
	Appendix 8, Governance.	
Knowledge Sharing Plan	Update on the Knowledge	<del>R-5</del>
	Sharing Plan for the DEA's	
	review and approval as part of	
	the External Engagement	
	Meetings with the DEA cf.	
	Appendix 8, Governance.	
Knowledge sharing summary	Update of Knowledge sharing	R-5
report	summary report for the DEA's	10
report	review and approval as part of	
	the External Engagement	
	Meetings with the DEA cf.	
	Appendix 8, Governance.	
Public Engagement Plan	Update of Public Engagement	R-6
Fubilio Engagement Flan	Plan for the DEA's review and	<del>1\-0</del>
	approval as part of the External	
	Engagement Meetings with the	
	DEA cf. Appendix 8,	
01	Governance.	D 7
Storage site's compliance	The documentation of the CO <sub>2</sub>	<del>R-7</del>
	storage site's compliance should	
	be reflected as an Activity in	
	Programme Milestone 2.1 in	
	Appendix 5, Time schedules.	
	a) Documentation of the CO2	
	storage site's compliance	
	with the CCS Directive;	
	and/or	
	b) Documentation of the CO <sub>2</sub>	
	storage site's compliance	
	with ISO 27914:2017 or an	
	equivalent standard if the	



	storage site is not subject to the CCS Directive.	
Financial Report of the CCS Activities	First year after Contract Signing and then annually, no later than 1 June of the following year from the financial year under report.	R-8
Construction Interface Procedure	Update on the Construction Interface Procedure as part of the Quarterly Meetings with the DEA during the Construction Phase as specified in Appendix 8, Governance.	R-10
Report on CO <sub>2</sub> -production subject to the EU-ETS	First year after COD and then annually, no later than 30 March the following year.	R-18
Report on Delivered Quantity	At the Commercial Operation Date	R-19
Annual statement of the documentation of origin of the stored quantity of CO <sub>2</sub>	At the Commercial Operation Date and then annually.	<del>R-20</del>

### Minimum Requirements

The following table describes the Minimum Requirements to be fulfilled by the Operator.

Nr.	Minimum Requirement
MR-1	The Operator shall establish and operate the Value Chain.
MR-2	The Operator must obtain <b>all certificates</b> , <b>approvals</b> , <b>and permits necessary</b> to establish and operate the Value Chain.
MR-3	The capture, transport, and permanent storage of CO <sub>2</sub> shall result in CO <sub>2</sub> reductions in the Danish National Inventory Report (in Danish:
MD 4	Danmark's Nationale Drivhusgasregnskab).
MR-4	The Operator shall ensure that the CO <sub>2</sub> reductions equate to a Minimum Quantity of 0.4 MTA captured and permanently stored CO <sub>2</sub> per year starting with year 2026.



### Requirements for multiple Phases

This section outlines the Requirements valid for multiple phases during the Contract.

The categorisation of the requirements into Financial Requirements, Technical Requirements and Operational Requirements shall be of no relevance to the interpretation of their scope and the extent of the Operator's obligations.

Nr.	Category	Requirement
R-1	Operational	For the CCS Activities, the Operator shall provide and
	Requirement	execute a:
		Master Milestone Plan (Appendix 5)
		Detailed Milestone Plan (Appendix 5.A)
		Furthermore, the Operator shall-should provide a:
		Milestone Plan report (Sub-Appendix 4.B)
		The Master Milestone Plan, Detailed Milestone Plan, and
		the Milestone Plan report shall be in accordance with the requirements below.
		As further described below, the Master Milestone Plan shall
		be based on the Operator's Draft Milestone Plan and the
		requirements for the Draft Milestone Plan are also
		applicable to the Master Milestone Plan, except for the time of delivery.
		Master Milestone Plan (Appendix 5)
		The Operator has completed a Draft Master Milestone Plan
		as part of its BAFO.
		The Master Milestone Plan consists of a Programme
		Milestones Plan and a Project Milestones Plan. The plan is
		separated Each of the two plans are separated in three
		phases (Pre-construction, Construction, and Operation &
		Maintenance).
		The Operator shall for the Master Milestone Plan define the
		Project Milestones, the Timing of the Project Milestones, as
		well as the Timing of the DEA's predefined Programme
		Milestones. The Timing shall be in the format



DD.MM.YYYY. The Operator shall not define any additional Programme Milestones.

The Operator shall establish a clear connection between the Programme Milestones and the Project Milestones, as the Programme Milestones function as control gates. This means that any Project Milestone shall be connected to one Programme Milestone, i.e. a Programme Milestone can have multiple Project Milestones connected, but a Project Milestone cannot be connected to several Programme Milestones.

<u>Project Milestones shall be specified in a manner that makes it possible to determine their completion.</u>

The Operator's Programme Milestones and Project Milestones can run in parallel, meaning that the Timing of the Programme Milestones and Project Milestones do not need to be followed in a sequential order, with the exception of Programme Milestone 1.1 and 3.1, cf. Appendix 5, Master Milestone Plan.

Furthermore, the Master Milestone Plan shall contain a description of the planning methodology, e.g., MSP, Prince 2, IPMA or similar planning methodology, and how it will be applied to the programme. The description should be inserted in section 3 'Planning Methodology' in Appendix 5, Master Milestone Plan.

The Operator shall insert the defined Programme and Project Milestones and Timing in the template for the Master Milestone Plan in Table 1: 'Master Milestone Plan' in Appendix 5, Master Milestone Plan.

The Operator shall provide a final version of the Master Milestone Plan for the DEA's review and approval 30 days after Contract Signing.

The Master Milestone Plan shall be in accordance with the Draft Master Milestone Plan provided in the Operator's BAFO, unless the DEA approves deviations from the Draft Master Milestone Plan.



### **Detailed Milestone Plan (Appendix 5.A)**

The Operator should have provided a Draft Detailed

Milestone Plan for the DEA as part of its BAFO in Appendix

5.A, Detailed Milestone Plan

If the Draft Detailed Milestone Plan is not a part of BAFO, the Operator shall provide the Detailed Milestone Plan 30 days after Contract Signing.

If the Operator has completed a Draft Detailed Milestone
Plan for the DEA as part of its BAFO, the Operator shall
provide the Detailed Milestone Plan for the DEA's review
and approval 30 days after Contract Signing.

The final version of the Detailed Milestone Plan shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

The Detailed Milestone Plan (Appendix 5.A, Detailed Milestone Plan) should be in accordance with the Master Milestone Plan (Appendix 5, Master Milestone Plan). This means that the Detailed Milestone Plan (Appendix 5.A) should include identical Programme Milestones, Project Milestones, and Timing as specified in the Master Milestone Plan, Appendix 5. The Detailed Milestone Plan should also include activities, including Timing of the activities, contributing directly or indirectly to the progress and success of the project, including Sub-Suppliers' activities.

For R-1, an activity means a certain body of work needed to achieve a Project Milestone (e.g., submission of application for planning permission).

All Aactivities shall-should be properly planned with due regard to relevant factors, including – but not limited to HSE, risk and quality management before the Commercial Operation Date.

The activities for the Pre-construction and Construction phases, in the Detailed Milestone Plan, do not need to follow a specific timely order but can overlap.



If more than one submission date for a permit, approval, and certificate is anticipated by the Operator, an activity for each submission shall be created by the Operator in the Detailed Milestone Plan.

In case of inconsistency between the information provided in Appendix 5.A and Appendix 5, Appendix 5 shall prevail.

### Milestone Plan report (Sub-appendix 4.B)

The Operator should have provided an example of the Milestone Plan report as part of its BAFO.

If the example of the Milestone Plan report is not a part of BAFO, the Operator shall provide the <u>example of the</u> Milestone Plan <u>report for the DEA's review and approval</u> 30 days after Contract Signing.

The Operator shall prepare a Milestone Plan report to ensure that the DEA is kept informed about the status of the Master Milestone Plan and Detailed Milestone Plan. The Operator shall ensure that the DEA is able to maintain a complete and detailed overview of the progress of the Master Milestone Plan and Detailed Milestone Plan.

The Milestone Plan report shall describe the Operator's status, performance, and control of the <u>-aActivities</u> with reference to the Master Milestone Plan <u>and Detailed</u> <u>Milestone Plan</u>. The Milestone Plan report shall be submitted to the DEA as part of the Quarterly Meetings, cf. Appendix 8, Governance.

As a minimum, the Milestone Plan report shall cover the following:

- Actual progress regarding the <u>Master Milestone</u>
   Plan and <u>Detailed Milestone Plan</u>
- Actual progress regarding the Project Milestone Plan
- Risk analysis of the Programme <u>Milestones</u> and the Project <u>Milestones</u>.
- Outlook on expected progress for the next period



# R-2 Operational Requirement

For the CCS Activities, the Operator shall provide and execute an:

Authority Approval Plan

The plan shall be in accordance with the following requirements:

### **Authority Approval Plan**

The Operator has completed a Draft Authority Approval Plan for the DEA as part of its BAFO in a separate subappendix to Appendix 4, Solution description.

The Authority Approval Plan shall describe identify the necessary Activities needed to obtain all permits, approvals, and certificates to establish and operate the full Value Chain, with clear indication of time of submission and expected approval from authorities and/or third parties. It should also include permits, approvals, and certificates already obtained to establish and operate the full Value Chain.

The Operator should for each permit, approval, and certificate state the timing in the format DD.MM.YYYY, however, if the Operator instead provides a time span in the Authority Approval Plan, the last date in the time span will be considered as the time of submission and/or expected approval. -

The Authority Approval Plan shall should describe how the Operator will interact with authorities and other relevant third parties.

The Authority Approval Plan shall should describe how the Operator will maintain the necessary permits, approvals, and certifications throughout the Contract duration.

The Operator shall provide the Authority Approval Plan for the DEA's review and approval 30 days after Contract Signing. The final version shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.



The Authority Approval Plan shall be specified and complied with in accordance with the Programme Milestones 1.2 & 2.1, as specified in Appendix 5, Master Milestone Plan-Time schedules.

The Operator shall deliver an update on the Authority Approval Plan as part of the Quarterly Meetings with the DEA during the Pre-construction and Construction Phase cf. Appendix 8, Governance.

### R-3 Operational Requirement

For the CCS Activities, the Operator shall provide and execute a:

- Risk Management Plan
- Risk assessment plan
- Risk assessment matrix
- Risk log

The Risk Management Plan, the Risk assessment plan, Risk assessment matrix, and Risk log shall be in accordance with the following requirements:

### Risk Management Plan

The Operator has completed a Draft Risk Management Plan for the DEA as part of its BAFO in a separate subappendix to Appendix 4, Solution description.

The Risk Management Plan shall reflect relevant concepts, management and risk evaluation elements as established in ISO 31000 or an equivalent standard.

The Risk Management Plan shall include a description of a chosen risk management framework and approach.

The Risk Management Plan shall encompass identification, analysis, evaluation, as well as mitigation planning and mitigation plan implementation, and tracking in accordance with the pre-established risk levels.

The Risk Management Plan shall have the ALARP- (as low as reasonably practicable) concept implemented.

As a minimum, the Risk Management Plan shall establish the framework to address risks related to:

Costs



- Planning, i.e. Programme and Project Milestones
- QHSE
- Information security
- Reputation
- Change management

The Operator shall provide the Risk Management Plan for the DEA's review and approval 30 days after Contract Signing. The final version of the Risk Management Plan shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

The Operator shall share an update of the Risk Management Plan as part of the Quarterly Meetings with the DEA during the Contract cf. Appendix 8, Governance.

### Risk assessment plan

The Operator has completed a draft Risk assessment plan for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Risk assessment plan shall, for each project phase (i.e., Pre-construction, Construction, and Operation and Maintenance) and risk assessment, specify:

- Scope
- The assessment type/methodology, e.g., Hazard and Operability Analysis (HAZOP), Hazard Identification (HAZID)
- Risk criteria
- Standards
- Estimated point in time for execution
- Responsibility for execution

The Operator shall ensure that the definition and planning of each risk assessment to be executed include a role description of the competences needed and responsibility. If a third party shall execute a risk assessment, this should be specified.

#### Risk assessment matrix

The Operator has completed a draft risk assessment matrix for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Risk assessment matrix shall include criteria to grade risks into different significance levels.

The Risk assessment matrix shall describe how risks in different significance levels are to be addressed.

### Risk log

The Operator has completed a draft Risk log for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Operator shall deliver updated versions of a Risk log as part of the Quarterly Meetings with the DEA during the Contract cf. Appendix 8, Governance.

The Risk log shall display all-relevant risks identified, including:

- Unique risk identification number
- Risk description
- Estimated risk likelihood and consequence
- Risk significance level in accordance with the projects risk criteria
- Description of identified risk mitigating measures in accordance with the risk criteria
- Responsibility, status, and deadline for risk mitigating measures

# R-4 Operational Requirement

For the CCS Activities, the Operator shall provide and execute a:

- QHSE Plan
- QHSE log
- QHSE report
- Inspection procedure

The QHSE plan, QHSE log, QHSE report, and Inspection procedure shall be in accordance with the following requirements:

### **QHSE PLAN**

The Operator has completed a draft QHSE Plan for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.



The Operator shall provide the QHSE Plan for the DEA's review and approval 30 days after Contract Signing. The final version of the QHSE Plan shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

The Operator shall deliver an update on the QHSE Plan as part of the Quarterly Meetings with the DEA during the Contract, cf. Appendix 8, Governance.

#### Governance

The QHSE Plan shall comply with relevant Danish QHSE legislation or applicable law.

The QHSE Plan shall present compliance with QHSE requirements and QHSE management systems, that enables the DEA to carry out audits of the Operator, e.g., by having implemented an ISO 9001, ISO 14001, ISO 45001, and/or an equivalent standard. The QHSE management systems shall establish relevant processes for project development and operations. Upon request, with a notice of at least two weeks, the DEA shall be enabled to Audit such management system. This kind of Audit may be conducted by an independent third party chosen by the DEA.

#### Communication

The QHSE Plan shall describe how the Operator will ensure communication about QHSE with the DEA, its Sub-Suppliers, and other relevant stakeholders.

The QHSE Plan shall describe how residual risks and QHSE critical design information is communicated to the design and construction teams, including how the layout of the construction sites are planned.

#### Design

The QHSE Plan shall describe how to ensure that required working methods, materials, structures, and the like, are intended to be used and organised in relation to each other, so that work can be performed in compliance with applicable QHSE legislation.



The QHSE Plan shall describe how to ensure that no materials are required to be used that can impair health or safety if they can be replaced by non-hazardous or less hazardous substances.

### Emergency Preparedness

The QHSE Plan shall describe emergency preparedness arrangements towards addressing realistic QHSE crisis scenarios.

As a minimum, the crisis scenarios in the emergency preparedness description shall cover:

- Mitigation
- Preparation
- Response
- Recovery
- Crisis communication planning
- Crisis communication training to relevant stakeholders (internal and external stakeholders).

### **QHSE** log

The Operator should have provided a draft QHSE log for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

If the draft QHSE log is not a part of BAFO, the Operator shall provide the QHSE log 30 days after Contract Signing.

The Operator shall deliver an updated QHSE log as part of the Quarterly Meetings with the DEA during the Contract, cf. Appendix 8, Governance.

As a minimum, the QHSE log shall describe:

- Reported incidents
- Follow up on QHSE reported incidents
- Accidents
- Follow up on QHSE reported accidents
- Nonconformities
- QHSE pre-established activities, e.g., weekly
   QHSE site meetings

### **QHSE** report



The Operator should have provided a list of headlines for the QHSE report for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

If the draft QHSE report is not a part of BAFO, the Operator shall provide the QHSE report 30 days after Contract Signing.

The Operator shall deliver a QHSE report as part of the Quarterly Meetings with the DEA during the Contract, cf. Appendix 8, Governance.

As a minimum, the QHSE report shall cover:

- Performance of KPIs
- Description of findings from construction site visits
- Description of details on QHSE performance

### **Inspection procedure**

The Operator should have provided a draft Inspection procedure for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

If the draft Inspection Procedure is not a part of BAFO, the Operator shall provide the Inspection Procedure 30 days after Contract Signing.

The Operator shall deliver an <u>updated</u> Inspection procedure as part of the Quarterly Meetings with the DEA during the Contract, cf. Appendix 8, Governance.

The Operator shall carry out Inspections to construction sites for the CCS Value Chain and document relevant findings in a systematic manner, including photographic recording.

The Operator shall carry out Inspections of the construction sites once a month per construction site.

As a minimum, the Inspection procedure shall describe:

- How the Inspections to construction sites are performed and documented, including which specific parts of the constructions/construction sites will be inspected
- How Inspections and findings at the constructions/construction sites will be



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		documented, and particularly how they are to be addressed
R-5	Operational Requirement	<ul> <li>For the CCS Activities, the Operator has provided:</li> <li>Knowledge Sharing Plan</li> <li>Furthermore, the Operator shall provide:</li> <li>Knowledge sharing summary report</li> <li>The plan and reporting shall be in accordance with the</li> </ul>
		following requirements:  Knowledge Sharing Plan The Operator has provided a draft of the Knowledge Sharing Plan for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.  The Operator shall deliver a final version of the Knowledge Sharing Plan for the DEA's review and approval 30 days after Contract Signing. The final version of the Knowledge Sharing Plan shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.
		The Operator shall from the beginning of the Contract and until 1 January 2030 execute the activities specified in the Knowledge Sharing Plan.  The Knowledge Sharing Plan shall describe the content of the knowledge sharing summary report.  As a minimum, the Knowledge Sharing Plan shall cover a:  • Description of how the Operator expects to conduct the knowledge sharing between the Operator, the DEA, the CCUS Community and the public  • Description of critical knowledge gaps identified during the Pre-construction, Construction, and Operation & Maintenance Phases  • Description of what project information will be shared with the CCUS Community and the public  • Description of how and when the Operator will publish/present and make information and data available to the CCUS Community and the public



- Description of the data and information methodology of the Knowledge sharing summary report, to ensure quality and consistency
- Description of the content of the Knowledge sharing summary report

The Operator shall ensure that the data and information is presented in an aggregated format across the project, and that KPI's are disclosed in a consistent format that can be compared year-by-year.

The Operator shall bi-annually deliver an update on the Knowledge Sharing Plan for the DEA's review and approval as part of the External Engagement Meetings with the DEA until 1 January 2030 cf. Appendix 8, Governance.

### Knowledge sharing summary report

The Operator should have provided an example of a Knowledge sharing summary report for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

If the example of the Knowledge sharing summary report is not a part of BAFO, the Operator shall provide the example of the Knowledge sharing summary report 30 days after Contract Signing.

The Operator shall bi-annually deliver a Knowledge sharing summary report for the DEA's review and approval as part of the External Engagement Meetings with the DEA until 1 January 2030 cf. Appendix 8, Governance.

As a minimum, the Operator's Knowledge sharing summary report shall include:

- The status and the Operator's key learnings in relation to establishment and operations of the CCS Activities. This shall include:
  - o The design
  - The procurement
  - The contracting
  - The construction
  - Test and commissioning,
  - Validation and operations of the Value Chain during the Pre-construction,



Construction, and Operation & Maintenance Phases.

The Operator shall include knowledge on both the technical, organisational, and commercial setup, such as technology performance, technical performance, budget performance, risk and QHSE performance as well as commercial issues and commercial performance.

Furthermore, the Operator's KPIs and figures from the Value Chain during the Pre-construction, Construction, and Operation & Maintenance Phases, summary reports from site and plant reviews, should also be included.

# R-6 Operational Requirement

For the CCS Activities, the Operator shall provide and execute a:

• Public Engagement Plan

The report shall be in accordance with the following requirements:

### **Public Engagement Plan**

The Operator has completed a draft Public Engagement Plan for the DEA as part of its BAFO in a separate subappendix to Appendix 4, Solution description.

The Operator shall from the beginning of the Contract and until 1 January 2030 execute the activities as specified in the Public Engagement Plan.

As a minimum, the Public Engagement Plan shall cover a:

- Description of how the Operator expects involve and communicate with local and national stakeholders to ensure local and national acceptance
- Description of how the Operator will handle resistance and public opposition from concerned citizens about local interests related to CCS
- Description of how the Operator will ensure open and non-biased communication with the public and the DEA regarding local and national acceptance of CCS



The Operator shall provide a final version of the Public Engagement Plan for the DEA's review and approval 30 days after Contract Signing. The final version of the Public Engagement Plan shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

The Operator shall bi-annually deliver an update on the Public Engagement Plan for the DEA's review and approval as part of the External Engagement Meetings with the DEA until 1 January 2030 cf. Appendix 8, Governance.

# R-7 Operational Requirement

For the CCS Activities, the Operator shall obtain, maintain, and provide documentation for:

- A) Documentation of the CO<sub>2</sub> storage site's compliance with the CCS Directive; and / or
- B) Documentation of the CO<sub>2</sub> storage site's compliance with ISO 27914:2017 if the storage site is not subject to the CCS Directive (as implemented in national law) or an equivalent standard.

### A) Storage site's compliance with the CCS Directive

The Operator shall prior to the Commercial Operation Date provide documentation of the storage site's compliance 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.

# B) Documentation of the CO<sub>2</sub> storage site's compliance with ISO 27914:2017

If the storage site is not subject to the CCS Directive (as implemented in national law), the Operator shall prior to the Commercial Operation Date provide a third-party certificate of conformity that the site operations conform to ISO 27914:2017 or an equivalent standard.

The documentation of the CO<sub>2</sub> storage site's compliance should be reflected as an <u>Project Milestone Activity</u> in Programme Milestone 2.1 in Appendix 5, <u>Master Milestone Plan Time schedules</u>.



R-8 Financial Requirement

For the CCS Activities, the Operator shall provide an:

Audited Financial Report of the CCS Activities

The Audited Financial Report of the CCS Activities shall be in accordance with the following requirements:

### **Financial Report of the CCS Activities**

The Operator shall from the first year 30 days after Contract Signing, i.e., 2023, and until 1 year after end of Contract deliver and present an audited Financial Report of the CCS Activities.

The Operator shall present the audited Financial Report of the CCS Activities no later than September 15 of the following year from the financial year under report.

The Audited Financial Report of the CCS Activities shall comply with the Danish Financial Statements Act, including the requirement set out in 'Årsregnskabslovens Bilag 2' (In Danish: Årsregnskabsloven) or applicable law.

If the Operator reports its Audited Financial Report of the CCS Activities according to the IFRS-standards then the requirements to report in compliance with the Danish Financial Statements Act means that the reporting also shall comply with the requirements of the IFRS.

The Operator shall ensure that the Financial Report of the CCS Activities only concerns the CCS Activities. This may be the case if the Operator's only activities are the CCS Activities or it may take place through financial unbundling of the CCS Activities. The Operator's obligation to ensure that the Financial Report only concerns the CCS Activities shall apply regardless of to what extent the Operator performs the CCS Activities on its own or through Sub-Suppliers and if the Operator is a sole entity or a group of entities.

In additional to the requirements of the Danish Financial Statements Act or applicable law the Financial Report of the CCS Activities shall specify the following items:

**Earnings** 



		<ul> <li>i. Savings from avoided or surplus EUA</li> <li>ii. Savings from avoided CO<sub>2</sub> taxes and energy taxes</li> <li>iii. Earnings related to storage of CO<sub>2</sub> not subject to EU's ETS such as certificates or allowances related to biogenic CO<sub>2</sub></li> <li>iv. Other earnings</li> <li>The sum of the specified earnings should add up to the total summary of earnings of the beforementioned earnings categories (i-iv) related to the CCS Activities.</li> </ul>
		i. Onshore logistics and intermediate storage (if relevant) ii. Offshore transport and permanent storage iii. Other OPEX iv. Corporate and other tax
		The sum of the specified costs should add up to the total summary of costs of the beforementioned cost categories (i-iv) related to the CCS Activities.
R-9	Financial Requirement	For the CCS Activities, the Operator shall optimise costs and earnings in the spirit of good business conduct.
		To support the monitoring of such optimisation, the Operator has completed and specified the following in Appendix 7, Subsidy and costs as part of its BAFO:
		Earnings
		<ul> <li>Savings from avoided or surplus EUA</li> <li>Savings from avoided CO<sub>2</sub> taxes and energy taxes</li> <li>Earnings related to storage of CO<sub>2</sub> not subject to EU's ETS such as certificates or allowances related to biogenic CO<sub>2</sub></li> <li>Other earnings</li> </ul>
		Costs
		<ul> <li>CAPEX</li> <li>Onshore logistics and intermediate storage (if relevant)</li> <li>Offshore transport and permanent storage</li> <li>Other OPEX</li> <li>Corporate and other tax</li> <li>Depreciation</li> </ul>



The completion of Appendix 7, Subsidy and costs shall comply with the principles of the Danish Financial Statements Act, including the requirement set out in 'Årsregnskabslovens Bilag 2' (In Danish: Årsregnskabsloven) or applicable law as the cash flows of the Operator's business case will be reported in the Audited Financial Report for the CCS Activities.

The Operator shall include an overview of the initiatives, which the Operator has performed to obtain revenues and/or savings related to the above items, in an annual Financial Report, to be presented and discussed as part of the Annual Management Meeting, cf. Appendix 8, Governance.

### Requirements for the Pre-construction Phase

This section outlines the Requirements for the Pre-construction Phase.

Nr.	Category	Requirement
R-10	Operational	For the CCS Activities, the Operator shall provide and
	Requirement	execute a:
		Construction Interface Procedure
		The Construction Interface Procedure shall be in accordance
		with the following requirements:
		Construction Interface Procedure
		The Operator has completed a draft Construction Interface
		Procedure, including the establishment of interface registers towards other contractual parties, for the CCS Activities as
		part of its BAFO in a separate sub-appendix to Appendix 4,
		Solution description.
		As a minimum, the Construction Interface Procedure shall cover:
		<ul> <li>Description of the interfaces between the Operator and Sub-Suppliers</li> </ul>
		Description of how the Operator effectively
		manages the interfaces between Operator and
		Sub-Suppliers, including, but not limited to:
		<ul> <li>How to provide access to the construction sites</li> </ul>
		and works to other parties e.g., Sub-Suppliers



### How to provide all the necessary information and training for the execution of works by other parties e.g., Sub-Suppliers

- How to provide those equipment/parts of the works necessary for the execution of works by other parties
- How to provide the necessary resources for joint Inspections, reviews, testing, and commissioning
- How to address simultaneous operations where two or more parties (e.g., Operator, Sub-Suppliers) have interfaces, including QHSE and risk considerations

The Operator shall provide the Construction Interface Procedure for the DEA's review and approval 30 days after Contract Signing. The final version of the Construction Interface Procedure shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

The Operator shall deliver an update on the Construction Interface Procedure as part of the Quarterly Meetings with the DEA during the Construction Phase as specified in Appendix 8, Governance.

# R-11 Financial Requirement

For the CCS Activities, the Operator shall provide and execute a:

- Financing Plan
- Financing model summary sheet (only to be provided in case of external financing, i.e., not parent company financing)

The Financing Plan and Financing model summary sheet shall be in accordance with the following requirements:

#### Financing Plan

The Operator has completed a draft Financing Plan for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Financing Plan shall describe the expected investments in writing with a clear connection to the numbers stated in the Financing model summary sheet.



The Financing Plan shall describe the access to the necessary funding and expected investments from e.g., owners, financial institutions, investors, or venture capitalists. Furthermore, the Financing Plan shall cover:

- Expected financial risks and mitigation measures
- Descriptions or documentation of commitment of project funders and investors

### Financing model summary sheet

The Operator has completed a draft Financing model summary sheet (only to be provided in case of external financing, i.e., not parent company financing) for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Financing model summary sheet shall describe the expected investments in numbers with a clear connection to the written description submitted in the Financing Plan.

The Operator shall provide a final version of the Financing Plan and Financing model summary sheet for the DEA's review and approval 30 days after Contract Signing. The final version of the Financing Plan and the Financing model summary sheet shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

# R-12 Financial Requirement

For the CCS Activities, the Operator shall provide and execute a:

- Business Plan
- Business model summary sheet

The Business Plan and Business model summary sheet shall be in accordance with the following requirements:

#### **Business Plan**

The Operator has completed a draft Business Plan for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Business Plan shall describe and substantiate the economic feasibility of the project providing a detailed overview of the expected investments, operating expenses, and revenue streams cash flow. Explicitly, it is expected



that the Operator not only presents the cost structures of its own works, but also applies similar level of detail to its Sub-Suppliers, as a minimum, the terms and conditions of the contract with the Sub-Suppliers

The Business Plan shall describe the following bullet points in writing and have a clear connection to the numbers stated in the Business model summary sheet.

As a minimum, the Business Plan shall cover:

- Expected cost structure, (e.g. terms and conditions, contract, bonus schemes, volume reductions/increases, back-to-back terms, prices, duration of contract, conditions for termination of contract, fixed and variable payments, etc.)
- Cash flow with full transparency, i.e., details of Sub-Suppliers, costs, revenue, risk premiums, taxes, and incentives for constructing and operating the Value Chain
- The calculations of the Subsidy per tonne stored CO<sub>2</sub>
- All relevant information regarding any applications on subsidy relating to CCS <u>Aactivities</u> submitted before BAFO
- The project's viability, i.e., return of enough revenue to meet its financial obligations, including relevant sensitivity analyses

### **Business model summary sheet**

The Operator has completed a draft Business model summary sheet for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Business model summary sheet shall describe the following bullet points with numbers and have a clear connection to the written description submitted in the Business Plan.



As a minimum, the Business model summary sheet shall cover:

- Expected cost structure (e.g. terms and conditions, contract, bonus schemes, volume reductions/increases, back-to-back terms, prices, duration of contract, conditions for termination of contract, fixed and variable payments, etc.)
- Cash flow with full transparency, i.e., details of Sub-Suppliers, costs, revenue, risk premiums, taxes, and incentives for constructing and operating the Value Chain
- The calculations of the Subsidy per tonne stored CO<sub>2</sub>
- All relevant information regarding any applications on subsidy relating to CCS Activities submitted before BAFO.
- The project's viability, i.e., return of enough revenue to meet its financial obligations, including relevant sensitivity analyses

The Operator shall provide a final version of the Business Plan for the DEA's review and approval 30 days after Contract Signing. The final version of the Business Plan shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

# R-13 Technical Requirement

For the CCS Activities, the Operator shall provide and execute a:

- Technical Design, including technical feasibility assessment
- Total design verification plan

The Technical design and Total design verification plan shall be in accordance with the following requirements:

#### **Technical Design**

The Operator has completed a draft Technical Design for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.



The Operator shall from the beginning of the Contract and until the Operation & Maintenance Phase maintain the Technical Design.

As a minimum, the Technical Design shall cover:

- Description of the design for delivering the captured CO<sub>2</sub> for storage (e.g., direct pipeline to offshore intermediate storage facility, near storage field, or ship transport to storage site)
- Description of the maturity of the technology, i.e., the technology readiness and technical feasibility of delivering the Contracted Quantity of CO<sub>2</sub> within the proposed operational environment for each of the different major components in the Value Chain (e.g., carbon capture plant, transport infrastructure, intermediate storage, and permanent storage) and the Value Chain integrations. For the different major components in the Value Chain, the concrete specifications on input and output from subsuppliers, energy balances for the system, and plans for energy integration of components at the plant as well as external energy sources/receivers should be included.
- Description of the assessment of the related main technical risks and proposed risk mitigation measures
- Name of the plant or plants, address of the plant or plants, the name and registration number for the plant(s) production unit (in Danish: "Produktionsenhed" og "P-nummer"), corresponding to the minimum requirements regarding technical and professional ability cf. III.1.3 in the Tender notice.

A third-party technology qualification shall be carried out if any of the technologies proposed to be used in the Technical Design is characterised as innovative technology. The conclusions of the qualification shall be documented in the form of a Verification, certification, or similar, proving



that the technology can achieve its objectives with an acceptable level of confidence.

The Operator shall provide a final version of the Technical Design for the DEA's review and approval 30 days after Contract Signing. The final version of the Technical Design shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

### Total design verification plan

The Operator has completed a draft Total design verification plan for the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.

The Total design verification plan shall describe all-the design, engineering, and technical qualification activities of the CCS Activities carried out by the Operator and its Sub-Suppliers. The conclusions on how the proposed design fulfils the pre-agreed requirements shall be presented in a synthesis.

### Requirements for the Construction Phase

This section outlines the Requirements for the Construction Phase.

Nr.	Category	Requirement
R-14	Technical	For the CCS Activities, the Operator shall provide and
	Requirement	execute a:
		Test and Commissioning Plan
		Test event log
		The Test and Commissioning plan and Test event log shall
		be in accordance with the following requirements:
		Test and Commissioning Plan
		The Operator has completed a draft Test and
		Commissioning Plan to the DEA as part of its BAFO in a
		separate sub-appendix to Appendix 4, Solution description.
		The Test and Commissioning Plan shall ensure that the
		different elements, that comprise the Value Chain, perform
		individually and in accordance with established



specifications in R-13, Technical Design. <u>The Operator</u> shall complete all testing and commissioning required for commencement of the operation of the full Value Chain before Commercial Operation Date (Programme Milestone 3.1).

The Operator's Test and Commissioning Plan shall include a test event log, which establishes a structure for updating the DEA on the Quarterly Meetings, cf. Appendix 8, Governance.

As a minimum, the Test and Commissioning Plan shall cover:

- Description of the content and process of the test documentation, including how test procedures are designed, performed, and reported upon.
- Description of how the tests will be documented in the test event log
- Description of how retesting and closing of test events, when required, will be performed

The Operator shall deliver and present the Test and Commissioning Plan for the DEA's review and approval as part of the last Quarterly Meeting with the DEA (and at the latest 3 months before the <u>Programme</u> Milestone 'Test and Commissioning Done'), cf. Appendix 5, <u>Master Milestone</u> Plan Time schedules.

The Test and Commissioning Plan shall be specified and complied with in accordance with the Programme Milestones 2.5, as specified in Appendix 5, Master Milestone Plan Time schedules.

The Operator shall provide a final version of the Test and Commissioning Plan for the DEA's review and approval 30 days after Contract Signing. The final version of the Test and Commissioning Plan shall be in accordance with the draft provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

### Test event log

The Operator should have provided a draft Test event log to the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.



If the draft Test event log is not a part of BAFO, the Operator shall provide the Test event log 30 days after Contract Signing.

The Operator shall deliver updated versions of a Test event log as part of the Quarterly Meetings with the DEA during the Pre-construction and Construction Phase cf. Appendix 8, Governance.

As a minimum, the Test event log shall cover:

- Number of tests conducted
- Description of the tests
- Description of the consequences, if any, of the test Results of the tests

# R-15 Operational Requirement

The Operator shall commence operation of the carbon capture plant(s) before 1 December 2025. cf. Programme Milestone 2.3. This implies that a minimum of 0,001 MT CO<sub>2</sub> is captured in the period from 1 December 2025 until 31 December 2025. If the Operator's performance is based on more than one carbon capture plant, the minimum of 0,001 MT CO<sub>2</sub> in total shall be based on proportions from each of the plants.

This requirement is deemed irrelevant if the date of Commercial Operation Date is scheduled before or on the 1 December 2025 as stated by the Operator in the Master Milestone Plan, cf. Appendix 5, <a href="Time-Master Milestone">Time-Master Milestone</a> <a href="Planschedules">Planschedules</a>.

The documentation of the <u>Ceommercial Oeperation Date</u> of the carbon capture plant(s) shall be specified and complied with in accordance with the Programme Milestones 2.4, as specified in Appendix 5, <u>Time schedules Master Milestone Plan</u>.

### Requirements for the Operation & Maintenance Phase

This section outlines the Requirements for the Operation & Maintenance Phase.

	Category	Nr. C
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R-16	Operational Requirement	The Operator shall capture, transport, and permanently store the Contracted Quantity every year of the Contract
R-17	Technical Requirement	The Operator shall, to the extent that the Operator captures and stores CO <sub>2</sub> from a CHP Plant under this Contract, ensure that, from 1 January 2030, no more than 10% of such CO <sub>2</sub> originates from fossil energy sources.
R-18	Operational Requirement	For the CCS Activities, the Operator shall provide a:  • Report on CO <sub>2</sub> production (subject to the EU ETS) if relevant
		The report on CO <sub>2</sub> production (subject to the EU ETS) shall be issued three times annually as specified below.
		This reporting requirement will cover the variation between forecast and actual production from designated point source(s) of CO <sub>2</sub> .
		The reporting shall be in accordance with the following requirements (if applicable):
		Report on CO <sub>2</sub> production (subject to the EU ETS) When relevant, and if applicable at the time of BAFO, the Operator has completed an example of the Report on CO <sub>2</sub> production (subject to the EU ETS) as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description.
		The Operator shall provide a final version of the example of the Report on CO <sub>2</sub> production (subject to the EU ETS) for the DEA's review and approval 30 days after Contract Signing. The final version shall be in accordance with the example provided in the Operator's BAFO, unless the DEA approves deviations from the example provided in the BAFO.
		The Report on CO <sub>2</sub> production (subject to the EU ETS) shall contain two types of data: actual and forecasted data.
		The Fraction is given as a percentage of the total quantity (a number between 0% and 100%).
		The actual data:



The Operator shall in the Report on CO<sub>2</sub> production (subject to the EU ETS) report on the actual Fraction of CO<sub>2</sub> production from the point source(s) that the carbon capture plant(s) is attached to, which would have been subject to the EU ETS if the CO<sub>2</sub> had not been captured and stored.

The Operator shall when documenting the actual Fraction base the calculation on the Operator's existing and verified CO<sub>2</sub> emission report (In Danish: CO<sub>2</sub> udledningsrapport) under the EU ETS and the rules in Danish Executive Order no. 2134 of 21 December 2020 (*In Danish:* "Bekendtgørelsen om CO<sub>2</sub>-kvoter"), Chapter 4 <a href="https://www.retsinformation.dk/eli/lta/2020/2134">https://www.retsinformation.dk/eli/lta/2020/2134</a> (And any rules that may amend or supersede these rules). The documentation for the Verification shall be included.

If the Actual Fossil (EUA) Fraction, as defined in Appendix 6, Subsidy and economy scheme, is different from the Fraction of fossil (EUA) CO<sub>2</sub> at the point source, the Operator shall document how the difference is obtained with reference to the regulations governing the ETS.

#### The forecasted data:

The Operator shall in the Report on CO<sub>2</sub> production (subject to the EU ETS) report the Forecast Fossil (EUA) Fraction and Annual Forecast Quantity as defined in Appendix 6, Subsidy and economy scheme.

The Operator shall when documenting the forecasted Fraction base the calculation on the Operator's own prognosis data in good faith and based on the same definitions as apply for reporting the Actual Fossil (EUA) Fraction.

### The reporting frequency:

In the Report on CO<sub>2</sub> production (subject to the EU ETS), the Operator shall prior to a given calendar year report a prognosis for the forecasted Fraction and quantity in the coming year. The Report on CO<sub>2</sub> production (subject to EU ETS) shall be reported annually, latest 30 November (prior to the calendar year).

The Operator shall provide an updated forecast of quantity and composition of the CO<sub>2</sub> (Updated Forecast Fossil



(EUA) Fraction and Updated Annual Forecast Quantity as defined in Appendix 6, Subsidy and economy scheme). The updated forecast shall be based on realised production in Q1-Q3 and on the Operator's forecasted values for Q4 of the year of production. The updated forecast shall be provided latest 340 October November of each calendar year.

After each calendar year, the Operator shall report the actual Fraction for the year passed. The actual Fraction shall be calculated with reference to the Delivered Quantity, cf. Appendix 7, Subsidy and costs. The actual Fraction reporting shall be verified and reported annually, latest by 30<sup>th</sup> March (in the year after).

The Operator shall deliver and present the verified Report on CO<sub>2</sub> production (subject to the EU ETS) at the Annual Management Meetings, cf. Appendix 8, Governance, from Contract Signing to 1 year after contract termination.

# R-19 Operational Requirement

For the CCS Activities, the Operator shall provide a:

Description of the Measurement system for CO<sub>2</sub> storage reporting

The Operator shall furthermore provide, with each invoice, a:

Report on Delivered Quantity

The system and reporting shall be in accordance with the following requirements:

### Measurement system for CO<sub>2</sub> storage reporting

The Operator shall ensure that the quantities of stored CO<sub>2</sub> are measured and reported accurately to the DEA by use of a measurement system for CO<sub>2</sub> storage reporting.

The measurement system for CO<sub>2</sub> storage reporting shall comprise technical components as well as the procedures required for ensuring the accuracy, integrity and timeliness of the measurement and reporting of data with the required intervals to the DEA.



The reporting of the quantities shall 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 has provided a description of the measurement system for CO<sub>2</sub> storage reporting as part of its BAFO in a separate sub-appendix in Appendix 4, Solution description.

The Operator's description shall describe how the exact CO<sub>2</sub> quantity stored is accurately measured, handling the expected uncertainties.

The Operator shall apply the CCS Directive's Annex II, (f)  $CO_2$  volumetric and (g)  $CO_2$  pressure and temperature and (h) chemical analysis.

The Operator's description shall describe how the technical measurements needed for determining the exact CO<sub>2</sub> quantity stored, will be technically designed, physically located, practically implemented and calibrated.

The Operator's description shall describe how the technical measurements will remain accurate over the full duration of the Operation & Maintenance Phase.

The measurement system for CO<sub>2</sub> storage reporting shall always be in accordance with the description.

The Operator shall design and implement an Information Security Management System (ISMS) based on the ISO 27001 standard or an equivalent standard to ensure the integrity of the measurement data both at rest and in transit when reporting to the DEA over the full duration of the Operation & Maintenance Phase.

The ISMS shall be considered as part of the measurement system for CO<sub>2</sub> storage reporting and the Operator's



description of the Measurement System for CO<sub>2</sub> Storage Reporting shall include the ISMS.

The Operator shall obtain and provide to the DEA a validation and Verification of the measurement system for CO<sub>2</sub> storage reporting from an Accredited Third Party. The validation of the measurement system for CO<sub>2</sub> storage reporting by an Accredited Third Party shall encompass a validation that the design of the measurement system complies with the requirements of the Contract. The validation shall be completed and the documentation for the validation shall be provided to the DEA prior as part of to the Construction Phase, Programme Milestone 2.1, as per Appendix 5, Master Milestone Plan.

The Verification of the measurement system for CO<sub>2</sub> storage reporting implemented (as built) by an Accredited Third Party shall encompass a Verification that the measurement system complies with the requirements of the Contract and the validated design. The Verification shall be completed and the documentation for the Verification shall be provided to the DEA prior to the Commercial Operation Date as part of Programme Milestone 2.5, as per Appendix 5, Master Milestone Plan.

The Operator shall obtain a separate Verification stating that the ISMS complies with the requirements of the Contract in the form of a ISAE 3402 Type 1 or equivalent Audit statement by an independent Accredited Third Party. The Verification shall be completed and the documentation for the Verification shall be provided to the DEA prior to the Commercial Operation Date.

From start of the Operation & Maintenance Phase the Operator shall ensure that the measurement system for CO<sub>2</sub> storage reporting is verified (with respect to compliance with the requirements of the Contract and the validated design) every year by an Accredited Third Party and provide documentation for the Verification to the DEA no later than March.

From start of the Operation & Maintenance Phase the Operator shall obtain a separate Verification of the ISMS (with respect to compliance with the requirements of the



Contract) every year in the form of a ISAE 3402 Type 2 or equivalent Audit statement by an independent Accredited Third Party and provide documentation for the Verification to the DEA no later than March.

If requested by DEA, the Operator must, at no extra cost to the DEA, change the measurement system for CO<sub>2</sub> storage reporting. Such changes may include changes of the methodology, system, components, procedures, etc. of the measurement system for CO<sub>2</sub> storage reporting. The Operator shall provide an updated description validated by an Accredited Third Party before changes are implemented following Appendix 10, Change management, for the review and approval of the DEA. After implementing such changes, the Operator shall provide a Verification of the measurement system for CO<sub>2</sub> storage reporting implemented (as built) by an Accredited Third Party (as the case may be taking into account the nature of the changes).

### **Report on Delivered Quantity**

The Operator has completed an example of the Report on Delivered Quantity to the DEA as part of its BAFO in a separate sub-appendix to Appendix 4, Solution description

The Operator shall with each invoice to the DEA deliver a Report on Delivered Quantity based on the above mentioned principles for metering to the DEA from Commercial Operation Date until end of Contract.

The Report on Delivered Quantity shall cover:

- The quantity stored within the invoicing period
- The quantity stored in the financial year
- The quantity stored since Contract Signing

# R-20 Operational Requirement

For the CCS Activities, the Operator shall provide a:

• CO<sub>2</sub> Origin Verification Plan

The purpose of the  $CO_2$  Origin Verification Plan is to establish and document the link between the captured  $CO_2$  and the stored  $CO_2$  and, - in case the stored  $CO_2$  is physically mixed with  $CO_2$  of other origin than the designated point source(s) e.g., through third party access make appropriate adjustments to the Fraction of the stored  $CO_2$ , so this can be reported and documented.



The Operator shall furthermore obtain and provide, on a yearly basis, after Commercial Operation Date a:

Verification of origin of stored quantity of CO<sub>2</sub>

The CO<sub>2</sub> Origin Verification Plan and Verification of origin of stored quantity of CO<sub>2</sub> shall be in accordance with the following requirements:

### CO<sub>2</sub> Origin Verification Plan

The Operator has provided draft CO<sub>2</sub> Origin Verification Plan as part of their BAFO to the DEA in a separate subappendix to Appendix 4, Solution description.

The Operator shall provide a final version of the  $CO_2$  Origin Verification Plan for the DEA's review and approval 30 days after Contract Signing. The final version of the  $CO_2$  Origin Verification Plan shall be in accordance with the draft version provided in the Operator's BAFO, unless the DEA approves deviations from the draft.

The CO<sub>2</sub> Origin Verification Plan shall also describe the method, design, implementation, and operations used to ensure accurate reporting.

The CO<sub>2</sub> Origin Verification Plan shall describe how the Operator will obtain the Audit of the documentation of origin of the stored CO<sub>2</sub>.

The Operator shall apply an internationally recognised standard or method for handling the origination of CO<sub>2</sub>. If no such standard or method is relevant for the Operator's business, the Operator may apply the principles applicable to biogas/natural gas, and/or electricity or similar, i.e. the principles of the "Renewable Energy Directive" Directive 2009/28/EC, revised in 2018 and the "Guarantees of Origin" Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC Text with EEA relevance and DIRECTIVE (EU) 2018/2001 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2018 on the promotion of the use of energy from



renewable sources and any rules that may amend or supersede these rules. If the beforementioned principles are not relevant for the Operator's business, the Operator should describe the selected method for handling the origination of CO<sub>2</sub>.

When a standard for handling the origination of CO<sub>2</sub> exists the Operator shall apply it and provide documentation to the DEA once certification is achieved.

The CO<sub>2</sub> Origin Verification Plan shall furthermore describe the management system to ensure the data integrity during the Operation & Maintenance Phase.

### Verification of origin of stored quantity of CO<sub>2</sub>

The Operator shall ensure and document that the full quantity of  $CO_2$  stored has been captured at the point source(s) encompassed by the Contract, and, in case the stored  $CO_2$  is physically mixed with  $CO_2$  of other origin, make appropriate adjustments of the Fraction of the stored quantity of  $CO_2$ . This shall be verified by an Accredited EU ETS Third-Party Auditor annually from Commercial Operation Date until end of Contract. The Operator shall provide documentation of the Verification to the DEA no later than  $30^{th}$  March in the year after storage.