

# Invitation to market dialogue

## NECCS Fund

**Office/department**  
Subsoil resources/ CCS

**Date**  
31-03-2023

**J no.** 2023 - 715

[LLPE]

**Danish Energy Agency**

Carsten Niebuhrs Gade 43  
1577 København V

T: +45 3392 6700  
E: [ens@ens.dk](mailto:ens@ens.dk)

[www.ens.dk](http://www.ens.dk)

## Indhold

1	Introduction.....	4
2	Input encouraged from the market dialogue .....	5
2.1	Value chain for carbon capture and storage .....	5
2.2	Finances and payment .....	6
2.3	The Danish Heat Supply Act and the Danish Electricity Supply Act .....	6
2.4	Project maturity.....	7
2.5	Public acceptance.....	7
2.6	Substantial comments regarding information presented in this document	7
3	State aid approval .....	8
3.1	Technologies eligible for aid .....	8
3.2	Incentive effect, need for aid and subsidy per ton of CO <sub>2</sub> e emission avoided.....	9
3.3	Additional input encouraged from the market dialogue concerning state aid approval.....	11
3.3.1	Technologies eligible for aid .....	11
3.3.2	Method and estimate of subsidy per ton of CO <sub>2</sub> e emission avoided (per reference project). .....	11
3.3.3	Proposed use and scope of the competitive bidding process. ....	11
3.3.4	Main parameters for allocation of the aid including for enabling competition between different types of technologies/bidders .....	12
3.3.5	Main assumptions used to demonstrate the incentive effect, the necessity and the proportionality of the aid.....	12
4	Current assumptions and considerations.....	12
4.1	Scope of Contract.....	13
4.2	Multiple contracts to be awarded.....	13
4.3	Capture and storage from year 2025.....	13
4.4	Contracted quantity of the stored CO <sub>2</sub> .....	13
4.5	Duration of Contract and Exit Clause .....	14
4.6	Extension of time .....	14
4.7	Force Majeure.....	15
4.8	Guarantee.....	17
4.9	Other requirements.....	18

5	Payment and adjustment of subsidy .....	18
5.1	Payment profile.....	18
5.2	Annual adjustment of subsidy.....	19
5.3	Penalties .....	20
6	Tender Procedure .....	21
6.1	Award criteria.....	21
6.2	Ranking.....	22
6.3	The marginal offer.....	22
7	Participation in the dialogue .....	23
8	Preliminary timeline and next steps .....	23
8.1	Glossary.....	25
8.2	Abbreviations .....	25

## 1 Introduction

The Danish Energy Agency (DEA) invites potential Bidder and relevant market operators to participate in the second round of market dialogue on the deployment of the Negative emissions carbon capture and storage fund ('NECCS').

As part of the Danish Financial act of 2022, the Danish Parliament has introduced a green partial agreement. The agreement established a market-based fund (NECCS) of 2.6 billion. DKK incl. VAT., dedicated to the establishment of a value-chain for negative carbon emissions. The fund strives to realize negative emissions of 0.5 million tonnes CO<sub>2</sub>/year (MTA) from year 2025. The capture plant(s) must be located in Denmark. The DEA is responsible for deploying the NECCS fund, which is scheduled for deployment between years 2025-2032 in order to contribute to the fulfilment of the emission reduction targets for 2025 and 2030 in the Danish Climate Act.

The fund covers the costs of capture, transport, and permanent storage of biogenic or atmospheric CO<sub>2</sub>. The Bidder are therefore to be responsible for the entire CCS value chain. The deployment of the fund supports that CO<sub>2</sub> capture, transportation, and storage are established simultaneously. This is necessary to ensure the coherence of the value chain for capture, transportation, and storage in order to realize the required negative emissions by year 2025.

The DEA expects that the deployment of the NECCS fund will be conducted as an open procedure in accordance with the principles in Part II of the Danish Public Tender Act. The DEA further expects that the tender process, including the tender material, will be conducted in English.

The DEA's overall considerations regarding the deployment of the NECCS fund are outlined in this note. The DEA wishes to emphasize that no final determinations and decisions have been made with respect to e.g. the legal framework and structure of the deployment of the funds and the foreseen tender process.

This market dialogue will provide an opportunity for the market and potential bidders to submit written feedback, input, and recommendations regarding the main elements of the tender. During the first round of market dialogue, potential bidders and other market operators gave input to the DEA under the following topics:

- **Timeline:** When could the operators be ready with respect to the different parts of the value chain, i.e. capture, transport and storage. What would be the desired timespan from tender publication to beginning of operation.
- **CCS vs CCU:** How is the timing of the NECCS tender relative to the expected development of a market for green CO<sub>2</sub> and carbon usage. What would be desired with respect to opt-out possibilities in case the CCU market took off earlier.
- **Storage possibilities:** Which storage possibilities did the stakeholders foresee and when.
- **Negative quotas through EU ETS:** What were the expectations and wishes to the EU ETS regarding biogenic CO<sub>2</sub>.
- **Voluntary carbon credits/carbon offsets:** The opportunity to obtain income from voluntary carbon credits in addition to state aid.
- **Penalty:** What were the objectives against a penalty system in the tender design.

The input from the market dialogue has been used in this tender outline.

## 2 Input encouraged from the market dialogue

The DEA invites the market to provide written input on questions specified below as well as general remarks to the content of this document including Appendix A, Requirement Specification. The output of the market dialogue serves as input for the DEA's final design of the tender material. Statements from the Bidder at this time are in no way binding. The DEA would like to invite the market to comment on the following:

### 2.1 Value chain for carbon capture and storage

- a) What is the quantity of captured and stored CO<sub>2</sub> that the Bidder expects to be able to provide in the offer from year 2025 and until end of Contracting Period? Please specify in MTA CO<sub>2</sub>

- b) Where is the Bidder planning on storing CO<sub>2</sub>? (Notice that the storage site is not part of the evaluation criteria)
- c) With the current information available about the CCS value chain, which considerations does the Bidder deem relevant to share with the DEA to improve price certainty during the Contract?
- d) Currently there is 50 million. DKK allocated for NECCS in 2024. Would it be realistic for the Bidder to capture and permanently store a quantity of CO<sub>2</sub> in the year 2024 (i.e. ramp-up quantity) taking into account that this could serve as an advantage in the evaluation of offers? (Notice that an offer of ramp-up quantity in 2024 is currently not a part of the DEA's proposed method for evaluation of offers)

## 2.2 Finances and payment

- a) Does the proposed subsidy model give rise to any remarks?
- b) Is there a market for the sale of certificates from negative emissions? (if yes: what are the relevant prices you would expect? What is the expected market size?)
- c) What financial means does the bidder consider to secure and ensure sufficient financial capabilities e.g. equity for the establishment of the project?

## 2.3 The Danish Heat Supply Act<sup>1</sup> and the Danish Electricity Supply Act<sup>2</sup>

- a) What financial means does a bidder subject to the Danish Heat Supply Act and/or the Danish Electricity Supply Act consider to secure and ensure sufficient financial capabilities e.g. equity for the establishment of the project?
- b) What considerations does it give rise to for the Bidder that the cost of capturing CO<sub>2</sub> cannot be fully or partially passed on to heating customers?
- c) Are there other legal concerns?
- d) What consequences does it have for a municipally owned company that it is expected to make use of or establish a separate company (in Danish: "Tilknyttet aktivitet") for the CO<sub>2</sub> activities?

---

<sup>1</sup> In Danish: "Lov om varmforsyning"

<sup>2</sup> In Danish: "Lov om elforsyning"

- e) Please elaborate specifically regarding:
- Consequences for preparation of the offer?
  - Consequences for the Bidder's business case and offered price?
  - Consequences for other related important issues?

## 2.4 Project maturity

- a) Which activities does the Bidder expect to prepare to document the project's feasibility and certainty of reaching a final investment decision (FID) within the timeline? Which specific technical activities does the Bidder expect to prepare before making a FID?
- b) Which regulatory approvals are needed in order to establish a CCS value chain and what is the expected time frame? Please provide further information on the concerns regarding regulatory approvals including any suggestions as to how this can be taken into consideration in the process.
- c) Which barriers does the Bidder expect to be the most significant challenges regarding the project's time schedule?

## 2.5 Public acceptance

- a) Are there any challenges that need to be addressed regarding the public acceptance of negative emissions CCS projects?
- b) If so, how can these challenges be tackled?
- c) Feasibility of participation in the Tender
- d) Does the Bidder foresee any issues in complying with the requirements described in Appendix A?
- e) With the current information available, does the Bidder deem it possible to make an offer?
- f) With the current information available, does the Bidder deem it necessary to include any Reservations in the Offer?

## 2.6 Substantial comments regarding information presented in this document

- a) Based on the information presented in this document, does the Bidder have any substantial comments

### 3 State aid approval

The DEA assesses that the NECCS fund constitute state aid as defined in art. 107(1) of the Treaty on the Functioning of the European Union (TFEU). The DEA will notify the tender to the European Commission following the procedure prescribed by Article 108 of the TFEU as state aid for the removal of greenhouse gasses. The measure will be designed in accordance with the Commission's Guidelines on State aid for climate, environmental protection and energy 2022 (CEEAG)<sup>3</sup> to ensure compatibility with the internal market under art. 107(3)(c) of the TFEU.

According to section 4.1.3.4 of the CEEAG, Member States must conduct a public consultation, asking for views on the scheme's competition impact and proportionality, before notifying the aid. The duration of the public consultation should be at least six weeks and should cover the following topics:

- i. The scope of the technologies eligible for aid under the scheme.
- ii. Method and estimate of subsidy per ton of CO<sub>2</sub>e emission avoided (per reference project).
- iii. Proposed use and scope of the competitive bidding process.
- iv. Main parameters for allocation of the aid (i.e. evaluation criteria used in the tender)
- v. Main assumptions used to demonstrate the incentive effect, the necessity and the proportionality of the aid.

In addition to allowing potential bidders to submit feedback on different aspects of the tender, this market dialogue also serves as the public consultation that the DEA must conduct according to section 4.1.3.4 of the CEEAG.

#### 3.1 Technologies eligible for aid

The NECCS scheme is a technology-neutral tender including all technologies that can provide negative CO<sub>2</sub> emissions obtained through the capture and permanent geological storage of biogenic and/or atmospheric CO<sub>2</sub>. The technologies in mind are biogas upgrading plants, industrial processes, energy and waste sectors including biomass, and, finally, CO<sub>2</sub> captured through direct air capture and storage (DACCS).

---

<sup>3</sup> Communication from the Commission, Guidelines on State aid for climate, environmental protection and energy 2022 (2022/C 80/01) (CEEAG).



Consequently, negative emissions based on biochar amendments to soil and natural processes such as afforestation will not be applicable for the NECCS scheme.

The effect of biochar amendments to soil is nonpermanent and the CO<sub>2</sub> reductions are expected to be very limited in the short-run (5-10 years). Additionally, the specific amount of CO<sub>2</sub> reductions in the process is difficult to assess. Likewise, the carbon uptake through afforestation is very limited in the first 10 years. The uptake is, for example, zero in the first years until the trees reach a height of 1.3 m.

### **3.2 Incentive effect, need for aid and subsidy per ton of CO<sub>2</sub>e emission avoided**

For the Commission to approve the NECCS scheme, the DEA must among other things demonstrate that the aid is necessary and that it has an incentive effect, cf. point 22 of the CEEAG. Justifying the necessity of the aid and its incentive effect entails the quantification of potential cost and revenues in the likely counterfactual scenario, i.e. the situation without aid, for each eligible technology, cf. points 28, 38 and 90 of the CEEAG.

Negative emissions are currently not covered by any of the regulatory incentives nationally or EU-wide with respect to reducing CO<sub>2</sub> emissions in terms of taxes or the quotas through EU-ETS. Hence, no potential income from negative taxes or negative quotas should be included in the likely counterfactual scenario.

Moreover, the DEA assess that the market for carbon offsets through certified negative emissions still is immature. The DEA finds it unlikely that the market will mature markedly, while the EU carbon removal certification framework is in development. The certification methodologies are not expected to be finalized before 2028, after which a market will have to evolve. However, the DEA invites the market to provide insight on whether they expect an income from the sale of certificates during the Contract Period.

A significant part of the potential aid beneficiaries may also generate a minor income through the sale of surplus heat. The sale of surplus heat will be included as a possible revenue in the counterfactual scenario. Nevertheless, the DEA finds that the sale of surplus heating is not enough to offset the cost of CCS.

The DEA has carried out an initial dialogue with the industry, which indicates that some producers of upgraded biogas have signed an agreement with actors wanting to utilize the captured CO<sub>2</sub> in the productions of, for example to produce e-fuels (PtX). However, the DEA believes that the potential demand for biogenic CO<sub>2</sub> is less than the potential supply from biogenic emission sources among the eligible technologies. Finally, producing e-fuels (PtX) will not generate negative emissions, which is the target of the NECCS scheme.

Thus, DEA finds that the likely counterfactual scenario would be a situation without sufficient revenue streams that could incentivize rational agents to invest in the eligible negative emissions technologies.

Concerning the relevant costs, the DEA has based its assessment of the counterfactual scenario on an eight-year project period. For CCS in waste incineration plants and biomass-fueled combined heat and power plants (CHP plants), capital expenditures (CAPEX) include CO<sub>2</sub> capture plants, liquefaction and CO<sub>2</sub> terminals for intermediate storage. The plants are assumed to have flue gas condensation, so as to minimize CAPEX by excluding pre-treatment unit (coolers) while maximizing income from surplus heat. For CCS in biogas upgrading plants, CAPEX only include liquefaction plants and CO<sub>2</sub> terminals for intermediate storage.. The depreciation period is assumed to be 15 years. Hence, CAPEX take into account the salvage value of the investments after the eight-year project period.

Operating expenditure (OPEX) include all relevant fixed and variable cost, for example electricity. Transportation and storage are assumed to be provided by subcontractors but are included as a cost in the counterfactual scenario. Costs are based on transportation by truck and shipping to offshore storage facilities.

Concerning DACCS, the DEA assumes that the technology is even more immature than the other eligible technologies. To the DEA's knowledge, only 18 plants are operational worldwide, and financial data is scarce.

The cost information is based on the Technology Data for Carbon Capture, Transport and Storage available on the DEA's website<sup>4</sup>.

---

4 <https://ens.dk/en/our-services/projections-and-models/technology-data/technology-data-carbon-capture-transport-and>

As the scheme concerns carbon capture, the estimation of the subsidy per ton of CO<sub>2</sub>e emission avoided will be based on the assessed cost of capture in the given technology.

### **3.3 Additional input encouraged from the market dialogue concerning state aid approval**

In addition to the questions posed under section 2, the DEA invites the market to comment on the following:

#### **3.3.1 Technologies eligible for aid**

- a) Given the requirement that the technologies eligible for aid must be able to store CO<sub>2</sub> permanently, does the Bidder have any comments regarding the limitation of the technologies under this Contract?

#### **3.3.2 Method and estimate of subsidy per ton of CO<sub>2</sub>e emission avoided (per reference project).**

- a) Does the Bidder have any comments regarding the assumptions stated in section 3.2 of this memo that the estimated subsidy per ton of CO<sub>2</sub>e emission avoided is equal to the total levelized cost of capture or should other parameters be included in the estimate?

#### **3.3.3 Proposed use and scope of the competitive bidding process.**

- a) The DEA believes that the tender process outlined in section 7 of this memo is the most efficient way to ensure competition among Bidders, keeping the aid for each project to the minimum needed to induce investments in NECCS. However, the DEA welcomes opinions on how the use or scope of the tender process could be amended to achieve more competition for the funds.

### **3.3.4 Main parameters for allocation of the aid including for enabling competition between different types of technologies/bidders**

- a) The DEA believes that the proposed evaluation criteria outlined in section 7 of the memo ensure sufficient competition between different technologies and obtaining the lowest possible subsidy per ton of CO<sub>2</sub> emission avoided. However, the DEA welcomes considerations concerning the criteria used for allocating the aid, enabling competition between different types of technologies.
- b) The DEA believes that the proposed tender design described in this memo strikes a reasonable balance between ensuring competition between different types of technologies and an expeditious realization of the goal of capturing 0.5 MTA of CO<sub>2</sub> from 2025. However, the DEA welcomes comments as to how the tender design may be altered to increase competition between different types of technologies.

### **3.3.5 Main assumptions used to demonstrate the incentive effect, the necessity and the proportionality of the aid.**

- a) Is it a reasonable assessment of the counterfactual scenario, i.e. the situation without aid, that it includes no or only negligible potential revenue streams?
- b) Are the assumed financial elements outlined in section 3.2 in alignment with the expected cost base and revenue streams?
- c) In case a claw back mechanism is introduced to avoid overcompensation from sale of certificates from negative emissions, how would that affect your bid?

## **4 Current assumptions and considerations**

The DEA will notify the NECCS fund to the European Commission. Thus, the deployment of the fund is dependent on the Commission's prior approval, which may entail changes of the considerations outlined in this memo.

- 1) The purpose of this second market dialogue is to present the DEA's overall considerations regarding the deployment of the NECCS fund. Thus, all aspects

of the assumptions and considerations presented in this document may be subject to change.

#### **4.1 Scope of Contract**

The Operator must deliver capture, transport, and permanent storage of biogenic or atmospheric CO<sub>2</sub>. Thus, the Operator is responsible for the establishment and operation of one fully integrated value chain, including agreements with relevant subcontractors, such as the point source of emission or a transport and storage operator. The Bidder can be any legal entity that can assume responsibility for the full CCS value chain.

While the point source of emission must be placed in Denmark, there is no requirement that the captured CO<sub>2</sub> must be stored in Denmark.

Furthermore, the Operator shall document the quantity of stored CO<sub>2</sub> and that the storage complies with the applicable rules, including the requirements of the Directive 2009/31/EC (EU's CCS Directive). The Operator must obtain all certificates, approvals, and permits necessary to establish and operate the Value Chain.

#### **4.2 Multiple contracts to be awarded**

The DEA has the possibility to offer multiple contracts for the capture, transport, and storage. The intention of the NECCS fund is to achieve negative CO<sub>2</sub> emissions through the storage of biogenic or atmospheric CO<sub>2</sub> and aims to support NECCS projects at any scale. There is a cap of DKK 2.6 billion incl. VAT (current prices) on the total aid paid out by the DEA to all the winning bidder(s) over the entire 8-year aid period from start of January 2025.

#### **4.3 Capture and storage from year 2025**

The Operator must capture and permanently store the yearly contracted quantity CO<sub>2</sub> from 2025. The Operator may deliver the reductions with one point source, a combination of point sources or a portfolio of several point sources. The subsidy will be paid per ton CO<sub>2</sub> captured and permanently stored per year.

#### **4.4 Contracted quantity of the stored CO<sub>2</sub>**

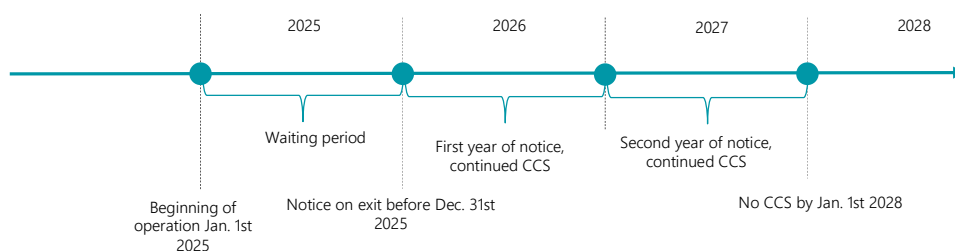
There will be no minimum amount of CO<sub>2</sub> to be captured and stored by the individual bidders. There is no maximum amount of CO<sub>2</sub> captured and stored by

the individual bidder either. Thus, all of the aid could be granted to one operator.

The quantity to be delivered annually by the Operator will be the actual, verified quantity of biogenic or atmospheric CO<sub>2</sub> stored. The stored quantity will not be subject to corrections due to any emissions from the operation of the Value Chain, e.g. emissions stemming from energy use or road transportation of CO<sub>2</sub>.

#### 4.5 Duration of Contract and Exit Clause

The Contract between the DEA and Operator is expected to be an 8-year operating agreement from 2025-2032. It is under consideration to build in a unilateral exit clause into the Contract that can be used by the Operator. The exit clause can at the earliest be used after one year of storing CO<sub>2</sub>, with minimum two (2) full calendar years notice. This means the first notice can be handed in ultimo 2025 with 2 years of notice and hence leaving the Contract ultimo 2027, as exemplified in the timeline below.



The purpose of the proposed exit clause is to allow for exit within a foreseeable time.

#### 4.6 Extension of time

The DEA considers allowing delay without penalty in certain situations. The proposal of the regulation is as follows:

The Operator has the right to an extension of the time-limit for storing 80 % of the contracted quantity in 2025 after obtaining the DEA's written consent, if the delay is caused by one or more of the following circumstances:

1. In case of a Force Majeure event, see clause regarding Force Majeure in section 4.7.
2. Injunctions or prohibitions by the authorities, which are not caused by circumstances attributable to the Operator.
3. A requirement for a stay of execution following directly from legislation or from a decision by a board of appeal or a court of law.
4. If the Operator has not received the necessary licenses, exemptions etc. from authorities, despite the Operator (including sub-suppliers) having applied with the relevant authorities no later than 1 July 2024.
5. If the installation(s) covered by the Contract or the CO2 storage site cannot be initiated due to a large preliminary study, see section 26(3) of the Danish Museum Act (museumsloven), cf. Consolidating Act no. 358 of 8 April 2014, or the project is suspended due to archaeological studies, see section 27 of the Danish Museum Act, cf. Consolidating Act no. 358 of 8 April 2014.

If the Operator considers that it is entitled to an extension of a time-limit, the Operator must notify the DEA of this in writing as soon as possible. The Operator must submit documentation that confirms that the delay has been caused by the circumstances claimed, and that the delay cannot be avoided or mitigated.

If circumstances for delay mentioned above continue beyond twelve (12) months after the Operator's notification to the DEA, the DEA shall be entitled – but not obliged – to terminate the Contract and no Party shall have any claim against the other Party based on the termination.

## 4.7 Force Majeure

The DEA proposes Force Majeure clause as follows:

- 4.7.1 If a Force Majeure event occurs, the Parties' obligations towards each other shall be suspended for the time being to the extent that they cannot be performed due to the Force Majeure event, provided that the Force Majeure situation is notified to the other Party with supporting arguments and particulars

describing the nature and extent of the Force Majeure event. The notice must be received within ten (10) Business Days after the Party in question finds or should have found a Force Majeure event to have occurred.

4.7.2 To this effect, Force Majeure is defined as an event:

- a) outside the control of the Parties, and of a certain qualified nature (e.g. terrorism, sabotage, war, hostilities, riots, nuclear or natural disasters, epidemics and evacuation; while this list is not exhaustive, only events of a comparable nature shall be included);
- b) unforeseeable or not reasonably foreseeable at the deadline for submission of the Operator's Offer; and furthermore,
- c) not possible to overcome; neither by investments of work, nor money, etc.

4.7.3 For the avoidance of doubt, industrial disputes, strikes and events of a similar nature concerning the Operator or a sub-supplier shall not be regarded as Force Majeure.

4.7.4 If the Operator's failure to perform under the Contract is due to failure by a third party that the Operator has engaged to perform the whole or a part of the Contract the Operator is exempt from performing his obligation only if:

- a) the Operator is exempt under clauses 4.7.1-4.7.2; and
- b) the person whom the Operator has engaged would be so exempt if clauses 4.7.1-4.7.3 were applied to him.

4.7.5 Continued force majeure

If the Force Majeure event continues beyond twelve (12) months after a Party's Force Majeure notification under clause 4.7.1., the other Party (the Party who did not invoke the Force Majeure clause) shall be entitled – but not obliged – to terminate the Contract.

If the Operator gives notice of termination in accordance with the preceding paragraph, the DEA shall be entitled to require the Operator not to terminate provided that the DEA undertakes to cover the Operator's documented and incurred additional costs in the continued Force Majeure period, i.e. after the lapse of the one hundred and eighty (180) Business Days after the Force Majeure notification. In accordance with the general rules of Danish law, the Operator shall have a duty to reduce such costs as much as possible, and the



DEA may at any time with a notice of three (3) months cease to cover the Operator's costs (at which point in time both Parties shall be entitled to terminate the Contract if the Force Majeure event persists).

## 4.8 Guarantee

The winning Bidder will have to provide either a Performance and Warranty Guarantee or a Parent Company Guarantee.

### Performance and Warranty Guarantee

The performance and warranty guarantee shall be issued in favour of the DEA on terms and conditions which will be specified. All expenses in issuing and maintaining the Guarantee shall be carried by the Operator. The Operator shall ensure that the Guarantee is valid and enforceable until the criteria for release of the guarantee has been fulfilled.

The financial amount of the guarantee shall correspond to 3 years cumulated full yearly penalty.

To ensure the Operator's due and punctual performance of the Contract, the Operator has prior to Contract signing provided to the DEA an unconditional and irrevocable on-demand performance and warranty guarantee issued by a guarantor in favour of the DEA. Such guarantee shall be in the form specified by the DEA and shall cover any type of claim raised by the DEA, including but not limited to claims for Penalties, repayment and reduction of Subsidies and damages.

The Guarantor shall be domiciled in the EU / EEA.

The Guarantor shall at least have the ratings for long-term debt specified below from two (2) of the mentioned three rating institutions (or corresponding ratings for long-term debt from similar reputable international rating institutions):

- a) A- rating for long-term debt issued by Standard & Poor's;
- b) A- rating for long-term debt issued by Fitch; and / or
- c) A3 rating for long-term debt issued by Moody's.

### Parent Company Guarantee

As an alternative to providing a Performance and Warranty Guarantee, the Operator can provide a Parent Company Guarantee. A Parent Company Guarantee is, when the Operator prior to contract signing has provided to the DEA

an unconditional and irrevocable on-demand guarantee issued by the Ultimate Parent Company of the Operator – if any – in favour of the DEA.

The financial amount of the Parent Company Guarantee shall correspond to 3 years cumulated full yearly penalty.

The Parent Company Guarantee shall cover any type of claim raised by the DEA, including but not limited to claims for penalties, repayment and reduction of Subsidies and damages.

The Parent Company Guarantee shall be issued for the entire Contracting Period.

#### **4.9 Other requirements**

For other requirements that the DEA intends to incorporate in the tender material please see Appendix A, Requirement Specification.

### **5 Payment and adjustment of subsidy**

This section outlines conditions for subsidy payed.

The subsidy is paid per tonne biogenic or atmospheric CO<sub>2</sub> that has been verified as captured and permanently stored, cf. section 3.1. The fund will not be deployable for up-front costs, such as projecting, construction, etc. Neither will winning Bidder be remunerated by the fund for delivery of any other service or compensated for any costs other than the agreed subsidy per tonne biogenic or atmospheric CO<sub>2</sub> stored.

#### **5.1 Payment profile**

The fund's deployment profile is based on the political agreement (FL2022), which determines an annual deployment profile and that the collective size of the fund is DKK 2.6 billion (current prices).

The political agreement states an annual deployment profile of DKK 272.5 million in support in 2023, DKK 223.3 million in 2024 and DKK 255.9 million annually in

2025-2032. Due to the feedback received in the first marked dialogue funds allocated in 2023 and 2024 have been reallocated to 2025-2032 as per Table 1.

Table 1

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032
<i>Annual subsidy cap, million DKK (2023-prices)</i>	50.2	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9

The subsidy will be paid per tonne CO<sub>2</sub> captured and stored. A fixed subsidy per tonne CO<sub>2</sub> will be offered for a fixed annual amount of CO<sub>2</sub> for the Contracting Period. The Price per tonne CO<sub>2</sub> will be adjusted throughout the Contracting Period to reflect inflation. Penalties for non-compliance will also apply.

Payment of the subsidy will be made as a monthly payment based on the actual delivery of capture and storage of CO<sub>2</sub>. The payment will continue throughout the Contracting Period, with the potential last payment being for CO<sub>2</sub> stored in the year 2032.

## 5.2 Annual adjustment of subsidy

Subsidies will be adjusted for inflation annually, in accordance with the Price- and Wage Assumptions underpinning public grants on the Danish Financial Act.

The Price- and Wage Assumptions are set in May for the following year by the Danish Agency for Public Finance and Management. E.g. the adjustment for expected inflation on public grants for the year 2023 was set in May 2022.

The DEA will announce the inflation adjustment rate and its effect on subsidies paid to the contracting parties in January of any given year. E.g., each contracting party will receive information from the DEA about the inflation adjustment rate and adjusted subsidy paid per ton CO<sub>2</sub> delivered in 2027 in January that same year.

### 5.3 Penalties

The DEA considers a penalty scheme as outlined in the following.

The Operator is committed to deliver the annually stored quantity (Q) in each of the years 2025-2032. If the Operator does not deliver the committed quantities (tons CO<sub>2</sub> per year), a penalty will have to be paid. Before any penalty a 20 percentage of flexibility is given to the Operator, meaning that the penalty is imposed on the Operator in case the stored quantities are less than 80 percentage of the committed quantities.

The penalty will be one third of the payment to the Operator if the quantities had actually been delivered. The penalty can be calculated as presented below.

$$Penalty(Q_f) = \frac{1}{3} * p_k * (0.8 * Q_k - Q_f), \text{ where}$$

*Q<sub>f</sub> is the actual delivered quantity,*

*p<sub>k</sub> is the Operator's subsidy and*

*Q<sub>k</sub> is the Operator's contract quantity*

The penalty will not apply in case of:

- Force majeure, cf. section 4.7
- Reduced demand for the main product
- Efficiency improvements in the main activity

Reduced demand for main products refers to a situation, in which a decline in demand for the Operator main products renders the Operator unable to deliver the Contracted Quantity of biogenic or atmospheric CO<sub>2</sub>. For instance, a year with reduced demand for district heating. In such a situation, a winning Operator will not be required to resume unnecessary operations (e.g. burning fuels to produce heat), in order not to be penalized under the contract.

Efficiency improvements in the main activity refers to a situation in which a winning Operator investments in the main activity improve efficiency with reduced GHG emissions as a consequence. E.g. if a winning Operator installs flue gas condensation, thus necessitating the burning of a lesser quantity of fuel to meet demand for the main product.

It should be noted, that the above refers to situations where the Operator inability to meet contractual demands constitute a side-effect of the triggering factor. Initiatives taken explicitly with the objective of reducing the quantity of eligible CO<sub>2</sub> under the contract or use it for other purposes will not be exempt from penalties. For example, if a winning Operator switch fuels and consequently is unable to deliver the contracted quantity of biogenic CO<sub>2</sub>. Another example could be, if a winning Operator commence production of e-fuels that require a CO<sub>2</sub>-feedstock and as a consequence is unable to fulfill the contract.

## 6 Tender Procedure

The deployment of the NECCS funds will be conducted as an open procedure in accordance with the principles in Part II of the Danish Public Tender Act.

The open procedure is a one-step tender process, which means that there will be no negotiations. Furthermore, all Bidders can submit one offer based on the tender documents and the published Contract Notice. All Bidders will be evaluated in the line with methodology and criteria set out in the tender documents.

### 6.1 Award criteria

The DEA will award the contract based on an evaluation of the best price-quality ratio. For the evaluation of which bid offers the best price-quality ratio, the DEA expects to apply the following sub-criteria where the sub-criterion price per tonne captured and stored CO<sub>2</sub> will be given the most weight in the evaluation:

- Price per tonne captured and stored CO<sub>2</sub>
- Project maturity will be qualitatively evaluated based on to what extent the bid demonstrates certainty of execution of the proposed project as described in Appendix A, Requirements Specification in.

A project that is highly competitive on one Award Criterion can potentially be outperformed by projects with high performance on the other Award Criteria, dependent on the weight to be specified in the tender material.

## 6.2 Ranking

The DEA considers to apply the following ranking system in the evaluation of Offers.

If several offers have received the same score, the offers in question will be ranked according to quantity of CO<sub>2</sub>, from the largest to the smallest.

If several offers, each of which can be accommodated within the available funds, receive the same score and have the same quantity of CO<sub>2</sub>, the offers in question will be ranked through drawing lots to the extent that it is not possible to award all of the offers a Contract within the available funds.

## 6.3 The marginal offer

The DEA considers to apply the following evaluation method in case of a “marginal offer”.

The "marginal offer" means an offer that complies with the requirements set out in the tender conditions, which – assessed on the basis of the score of the offer – can be awarded a Contract, but which would entail that the available funds would be exceeded. In case of a marginal offer, the DEA will offer the Bidder with the marginal offer the opportunity to downscale its quantity of CO<sub>2</sub> such that it can be contained within available funds, but at the rate originally offered.

The DEA will send a conditional award letter to the marginal Bidder via the digital tendering system with information about the downscaled quantity of CO<sub>2</sub> that can be contained within the available funds. The conditional award letter will state that in order for the DEA to be able to accept the offer, the Bidder will have to downscale the offered quantity of CO<sub>2</sub> such that it can be contained within the available funds.

If the marginal Bidder rejects the offer or if the DEA does not receive an acceptance of the conditional award letter from the marginal bidder no later than 10 (ten) working days after the DEA has sent the conditional award letter, the DEA will consider this a rejection of the offer to downscale and the conditional offer of contract will lapse without further notice. Hereafter, the DEA will send a conditional award letter to the marginal Bidder with second highest score who get the

opportunity to downscale its quantity of CO<sub>2</sub> such that it can be contained within the available funds at the originally offered rate. This procedure will be repeated until a conditional award letter is accepted or there are no more marginal Bidders.

If there are marginal offers with the same score these will be ranked in the order from smallest to largest quantity of CO<sub>2</sub> stored. This entail that the marginal offer with the lowest quantity of CO<sub>2</sub> will receive a conditional award letter. This procedure will be repeated until a conditional award letter is accepted or there are no more marginal Bidders.

## 7 Participation in the dialogue

The deadlines for submitting written contributions to the second round of market dialogue are:

**8 May: Deadline for submitting written input on questions posed under section 2 as well as for general remarks to the content of this market dialogue**

**17 May: Deadline for submitting written input on questions posed under section 4**

The written input may potentially be elaborated on in writing and/or discussed at dialogue meetings if found relevant by the DEA. The DEA may ask a limited number of market operators' specific additional questions and/or invite a limited number of market operators to participate in dialogue meetings.

Written contribution to the market dialogue can be submitted by e-mail annotated with sagsnr. 2023-715 to the DEA, [ens@ens.dk](mailto:ens@ens.dk) with copy to [lpe@ens.dk](mailto:lpe@ens.dk) or by regular mail to: Energistyrelsen, Carsten Niebuhrs Gade 43, 1577 København V.

## 8 Preliminary timeline and next steps

Currently, the DEA expects that the timeline for the tender process will be as follows:

**26 April: Information meeting hosted by the DEA regarding the market dialogue and upcoming Tender**

**8 May: Deadline for submitting written input on questions posed under section 2 as well as for general remarks to the content of this market dialogue**

**17 May: Deadline for submitting written input on questions posed under section 3.3**

**30 June: Tender will open for submission of offers**

**23 October: Deadline for submission of offers**

**Ultimo 2023: Award of contract(s)**

The output of the market dialogue will serve as input for the DEA's final design of the Tender documents.

We look forward to receiving your feedback.

Danish Energy Agency



## 8.1 Glossary

1. Bidder covers potential bidders.
2. Carbon capture and storage (CCS) is a process consisting of the separation of CO<sub>2</sub> from industrial and energy-related sources, transport to a storage location, and permanent storage of the CO<sub>2</sub>.
3. Contract means this contract between the parties on carbon capture, transportation, and storage, including the Appendices.
4. Contracting Period is the duration of the contract.
5. Operator means the winning bidder(s), which have entered into the Contract with the DEA.
6. Party means either the Operator or the DEA.
7. Tonne is a metric ton, equal to 1,000 kg
8. Ultimate Parent Company means an entity that is not itself controlled by another entity of the group of controlled entities of which the Operator is part. Control is presumed to exist when an entity (i) owns, directly, or indirectly through other entities, more than half of the voting power of an entity, or (ii) has the power of more than half of the voting rights of an entity by virtue of ownership and/or an agreement with one or more shareholders.
9. Value chain is the full range of activities needed to capture, transport, and permanently store CO<sub>2</sub>.

## 8.2 Abbreviations

CCS = Carbon Capture and Storage

CCUS = Carbon Capture Utilization and Storage

DEA = Danish Energy Agency

EU = European Union

FID = Final Investment Decision

MT = Million Tonnes

MTA = Million Tonnes Annually

T = Tonnes