



Danish Energy Agency

# PUBLIC CONSULTATION ON THE CCS FUND

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CCS

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## 1. Introduction

The Danish Energy Agency (DEA) invites potential bidders and other relevant market actors to participate in the public consultation on the deployment of the Carbon capture and storage fund (CCS Fund).<sup>1</sup>

This consultation will provide an opportunity to submit written comments regarding the DEA's main assumptions and considerations regarding the CCS Fund's impact on competition and the proportionality of the aid. In section 2 of this memo, the DEA has included specific questions centred on these themes.

In section 3, 4 and 5, the DEA outlines main elements of the draft tender material. The DEA also encourages potential bidders to examine the two attached appendices, Appendix 3 *Requirements specification* and Appendix 4 *Description of the Subsidy and Economy Scheme*.

From 18 December 2023 to 15 January 2024, the DEA conducted a round of market dialogue on the CCS Fund. A general summary of the input received can be found on the [DEA's website](#).

### 1.1 Public CEEAG consultation

The DEA assesses that the CCS Fund constitutes state aid as defined in art. 107(1) of the Treaty on the Functioning of the European Union (TFEU). The CCS Fund will therefore be designed in accordance with the Commission's Guidelines on State aid for climate, environmental protection and energy 2022 (CEEAG)<sup>2</sup> to ensure compatibility with the internal market under art. 107(3)(c) of the TFEU.

This public consultation fulfils the obligation for the DEA according to section 4.1.3.4 of the CEEAG<sup>3</sup>. The public consultation should cover the following topics:<sup>4</sup>

- I. The scope of the technologies eligible for aid under the scheme.
- II. Method and estimate of subsidy per ton of CO<sub>2e</sub> emission avoided (per reference project).

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<sup>1</sup> With the [agreement on a strengthened framework for CCS in Denmark](#) (in Danish: "Aftale om styrkede rammevilkår for CCS i Danmark") of 20 September 2023, a majority of the Danish Parliament decided to merge the second phase of the CCUS fund and the Green Tax Reform fund into one combined fund, the "CCS Fund".

<sup>2</sup> Communication from the Commission, Guidelines on State aid for climate, environmental protection and energy 2022 (2022/C 80/01) (CEEAG).

<sup>3</sup> According to section 4.1.3.4 of the CEEAG, Member States must conduct a public consultation, asking for views on an aid scheme's competition impact and proportionality, before notifying the aid. The duration of the public consultation should be at least six weeks

<sup>4</sup> The DEA notes that a sixth (vi) topic should be included where the aid supports investment in natural gas-based generation or industrial production is listed in point 99(a) of the CEEAG. While fossil-based CCS are included in CCS Fund, this topic is, nevertheless, irrelevant to the schemes, as it does not support investment in gas generation or industrial production.



- III. Proposed use and scope of the competitive bidding process.
- IV. Main parameters for allocation of the aid (i.e. award criteria used in the tender)
- V. Main assumptions used to demonstrate the incentive effect, the necessity and the proportionality of the aid.

The questions posed in section 2 of this memo cover the five topics listed above and potential bidders are invited to submit their answers to the specific questions posed.

The DEA wishes to emphasize that no final decisions have been made with respect to e.g. the legal framework and structure of the deployment of the CCS Fund and the tender process. Thus, all aspects of the assumptions and considerations presented in this document may be subject to change.

The DEA notes that dialogue with the Commission concerning State aid approval of the CCS Fund is ongoing.<sup>5</sup> The DEA expects approval of the scheme in due time before the deadline for submission of the bidders' BAFO. Thus, the deployment of the fund is dependent on the Commission's prior approval, which may also entail changes of the considerations outlined in this memo.

## 1.2 Key components of the CCS Fund

The purpose of the CCS Fund is to achieve CO<sub>2</sub> emission reductions and/or negative emissions by permanently and geologically storing fossil and/or biogenic and/or atmospheric CO<sub>2</sub>. The overarching aim of the CCS Fund is thus to contribute to the realization of Denmark's climate targets as outlined in the Danish Climate Act<sup>6</sup> (in Danish: "Klimaloven"). Consequently, the capture plant(s) and/or direct air capture plant(s) on which the recipient(s) of the subsidy bases its project must therefore be placed in Denmark.

The DEA is responsible for administering the CCS Fund, which is scheduled for deployment between years 2029-2044. The CCS Fund's total budget amounts to approximately 28.3 billion DKK (2024 prices) (including VAT and coverage of potential derived tax losses<sup>7</sup>). Reference is also made to section 4.1.

The CCS Fund will be deployed through one single competitive bidding process. Consequently, the timeline for the CCS Fund competitive bidding process has been revised. See section 7 for a preliminary timeline for the competitive bidding process of the CCS Fund.

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<sup>5</sup> 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

<sup>6</sup> In Danish: "Klimaloven".

<sup>7</sup> In Danish "afledt afgiftstab"



The DEA will conduct the bidding process of the CCS fund as a negotiated procedure in accordance with the principles in Part II of the Danish Public Tender Act. See section 5 for a description of the proposed competitive bidding process.

## 2. Themes for public consultation

The DEA invites potential bidders and other interested parties to comment on the following:

### 2.1 Technologies eligible for aid

- a) Given the requirement that the technologies eligible for aid must be able to store CO<sub>2</sub> permanently and the political agreements, does bidder agree with the DEA's definition on the limitation of the technologies eligible for aid under the CCS Fund (see section 3.2)?

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

- a) Does bidder have any comments regarding the methods, assumptions and estimations stated in section 3.4 of this memo and Appendix 2 *Emission avoidance analysis of reference projects* concerning subsidy per ton of CO<sub>2</sub>e emission avoided?

### 2.3 Proposed use and scope of the competitive bidding process

- a) The DEA believes that the competitive bidding process outlined in section 5 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 CCS. 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.

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

- a) The DEA believes that the proposed award criteria outlined in section 5.5 of the memo ensure sufficient competition between different technologies, keeping the aid for each project to the minimum needed to induce investments in CCS. 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 a realization of Denmark's climate targets<sup>8</sup>. However, the DEA welcomes comments as to how the tender

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<sup>8</sup> As outlined in the Danish Climate Act (in Danish: "Klimaloven")



design may be altered to increase competition between different types of technologies.

## 2.5 Main assumptions used to demonstrate the incentive effect, the necessity and the proportionality of the aid

- a) Is it reasonable to assume that the counterfactual scenario includes no or only negligible potential revenue streams, for example that the potential income from the sale of certified negative emission is far from enough to incentivize CCS from biogenic CO<sub>2</sub> point sources, as stated in section 3.3 of this memo and Appendix 1 *Techno-economic assessment of CCS technologies*?
- b) Are the assumed financial elements outlined in section in section 3.3 and Appendix 1 *Techno-economic assessment of CCS technologies* in alignment with the expected cost base and revenue streams?
- c) Is the adjustment mechanism described in section 4.2 of this memo and Appendix 4 *Description of subsidy and economy scheme* sufficient to ensure that overcompensation is avoided to the highest possible extent; if not, how should it be amended?
- d) The DEA does, currently, not intend to adjust the aid level during the contract period for potential cost savings related to the operation of the capture plant, transportation or storage, as the DEA believes that the bidders will factor such potential savings into their offered rate. Given the length of the aid contract (up to 16 years), is this a reasonable assumption?
- e) As stated in Appendix 4 *Description of subsidy and economy scheme*<sup>9</sup>, the DEA intends to use the annual projected values of EU allowances (EUA) for the period 2029 to 2044 provided by the Ministry of Finance in the key figures catalogue (in Danish: *nøgletalskataloget*) as the baseline values to be used for the DEA's adjustment of the subsidy during the contract period ("method 1"). Specifically, each quarter of each year the DEA intends to adjust the subsidy rate if the actual market value of EUA exceeds the projected values of EUA (provided in the tender material) of a given year.

An alternative method would be for the DEA to provide one single EUA baseline value, e.g. the projected value of EUA in 2030, in the tender material and to use this as the baseline value for the DEA's adjustment of the subsidy during the contract period ("method 2"). Then, each quarter of each year the DEA would adjust the subsidy if the actual EUA market value exceeds this singular baseline value.

Considering the respective methods' impact on how the bidder will build its business and calculate the offered rate, what are the advantages and disadvantages of method 1 and method 2 in the bidder's opinion?

- f) As stated in Appendix 4 *Description of subsidy and economy scheme*<sup>10</sup>, the bidder shall provide in their offer information on income what the bidder has considered when calculating their offered rate. This includes, inter alia, income based on (at the time of the submission of offer) concluded

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<sup>9</sup> See subparagraph 1.3.1.

<sup>10</sup> See paragraph 1.7.



agreements on sale of carbon credits and – if relevant – expected income from future agreements on sales of carbon credits.

Taking the *additionality*<sup>11</sup> criteria of the [EU carbon removals certification framework](#) as well as independent carbon credit bureaus' certification standards into consideration, does the bidder assess it to be possible to sell new carbon credits<sup>12</sup> during the contract period, resulting in excess income compared to the income from carbon credit sales stated in the bidder's BAFO?

## 3. Current assumptions and considerations

### 3.1 Scope of contract

The DEA wishes to enter into one or more contract(s) pursuant to which the recipient(s) of the subsidies (each recipient "the Operator") is responsible for achieving CO<sub>2</sub> emission reductions and/or negative CO<sub>2</sub> emissions in accordance with the contract.

The Operator may be any economic operator or a group of operators willing to assume the responsibility for achieving the CO<sub>2</sub> emission reductions and/or negative CO<sub>2</sub> emissions in accordance with the contract by performing the contract by itself and/or by engaging sub-suppliers. Furthermore, the Operator must ensure that all certificates, approvals, and permits necessary to establish and operate the CCS value chain are obtained.

The Operator may base their project on CO<sub>2</sub> capture from one point source or direct air capture plant, a combination of point sources or direct air capture plants or a portfolio of several point sources or direct air capture plants. In connection with this, the Operator shall ensure that the captured CO<sub>2</sub> originates from (a) Carbon Capture Plant(s) placed in Denmark.

The Operator shall furthermore ensure that a minimum of 100,000 tonnes of CO<sub>2</sub> is captured and permanently, geologically stored annually from year 2030 and until and including 2044. It will also be possible for a bidder to receive subsidy in 2029 if they have specified in their offer a quantity of CO<sub>2</sub> to be captured and permanently, geologically stored in 2029 (see also section 3.6).

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<sup>11</sup> See e.g. the [EU Commission's Q&A on the EU carbon removals certification framework](#) for a description of the additionality criteria.

<sup>12</sup> I.e. sale of carbon credits that was not originally part of the bidder's business case at the time of the submission of bid, thus leading to a consideration of the additionality.





### 3.2 Technologies eligible for aid

The CCS Fund will be a technology-neutral tender covering all technologies that can provide permanent CO<sub>2</sub> reductions through the capture and storage of fossil-based CO<sub>2</sub>, non-fossil-based CO<sub>2</sub> or atmospheric CO<sub>2</sub>. Hence, the technologies in mind include industrial processes, energy and waste sectors, biogas upgrading plants and CO<sub>2</sub> captured through direct air capture and storage (DACCS).

The CCS Fund will not include biochar produced through pyrolysis, or natural processes, such as afforestation.

### 3.3 Incentive effect and the need for aid

For the Commission to approve the CCS Fund, the DEA must, among other things, demonstrate that the aid is necessary to induce investment in CCS 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.

The DEA has conducted a discounted cash-flow analysis, calculating the net present value of a series of CCS reference projects. The analysis is enclosed as *Appendix 1 Techno-economic assessment of CCS technologies*. The assessment includes a reference plant in each industry of a given size with a certain amount of yearly full load hours. The sectors assessed are cement, waste incineration, biomass combined heat and power (CHP) and biogas upgrading, as they are considered the most relevant sectors for the CCS Fund.

The cost estimates in Appendix 1 include capital expenditure (CAPEX) associated with commissioning carbon capture (including liquefaction and interim CO<sub>2</sub> storage terminals where applicable) and operational expenditure (OPEX), including transportation and storage of CO<sub>2</sub>. As stated in Appendix 1, the costs from CCS may vary from sector to sector, likewise the benefits (i.e. potential incomes or savings). For example, sectors where CCS is based on fossil-based CO<sub>2</sub> may obtain savings from acquiring fewer EU allowances (EUA) or paying a lower CO<sub>2</sub> or emissions tax. Furthermore, waste to energy and biomass CHP sell the waste heat from the capture process as district heating. These incomes and saving are included in the NPV analysis.

While the DEA cannot rule out that some biogenic CO<sub>2</sub> emitters may generate an income from the sale of certified negative emissions, no income from the sale of certificates has been included in the counterfactual scenario. The reason is that the DEA is unable to reliably gauge how the future demand for carbon credits based on bioenergy-CCS (BECCS) and DACCS will develop. Moreover, only a limited number of carbon credit agreements based on BECCS and DACCS have so far been made globally. Consequently, the DEA is unable to reliably determine the value of such potential BECCS or DACCS generated carbon credits. Nevertheless, even assuming a high carbon credit value, the DEA believes that this potential income is not enough to incentivize CCS.



### 3.4 Subsidy per ton of CO<sub>2</sub>e emission avoided

In Appendix 2 *Emission avoided analysis of reference projects*, the DEA has estimated the subsidy per ton of CO<sub>2</sub> avoided for each of the reference projects described above in section 3.3 of this memo.

As stated in Appendix 2, the analysis is based on the method and assumptions of the EU Innovation Fund's methodological principles for the net calculation of GHG emission avoidance, as suggested in note 67 to point 115 of the CEEAG.

In section 5 of Appendix 2, the estimated net emissions are set in relation to the net cost of capture, calculating the net cost per ton of emission avoided, corresponding to the estimated subsidy per ton of CO<sub>2</sub> avoided.

### 3.5 Capture and storage from year 2029

The DEA wants to incentivize capture and storage of CO<sub>2</sub> in 2029. Thus, it will be possible for a bidder to receive subsidy for capture and storage of CO<sub>2</sub> in 2029, see also section 3.6 and 4.4 regarding contracted quantity and penalty, respectively.

From year 2030 and until and including 2044, the operator shall ensure that a minimum of 100,000 tonnes of CO<sub>2</sub> is captured and permanently, geologically stored annually. Consequently, the operator's commercial operation date (COD) shall take place in 2030. It is possible for the operator to capture and store the quantity of CO<sub>2</sub> specified in their offer with one point source, a combination of point sources or a portfolio of several point sources.

COD is defined as the date when the operator shall commence the operation of the full CCS value chain (capture, transport and storage of CO<sub>2</sub>). If the operator's performance of the contract is based on more than one carbon capture plant, operation of the full value chain (i.e. COD) encompasses operation of all carbon capture plants.

In addition to the requirement that the operator's commercial operation date shall take place in 2030, the operator shall also commence demonstration of operation of the carbon capture plant(s) on which the operator's bases its project no later than 1 December 2029, cf. R-3 in Requirements specification<sup>13</sup>.

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

In the offer, the bidders are to specify the annual quantity of CO<sub>2</sub> that the bidder will be obliged to capture and permanently, geologically store annually from 2030-2044, which as a minimum shall be 100.000 tonnes of CO<sub>2</sub>. The bidder will also have the option to specify an optional quantity of CO<sub>2</sub> to be captured and permanently, geologically stored in 2029 (2029-quantity). Combined, the bidder's annual quantity and 2029-quantity is known as the "contracted quantity"

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<sup>13</sup> This requirement will, however, be deemed irrelevant if COD is scheduled before or on the 1 December 2029.



The quantity to be delivered annually by the operator will be the actual, verified quantity of CO<sub>2</sub> stored.

Additionally, the bidder also has the option to offer a “minimum annual quantity” (of minimum 100,000 tonnes) if the bidder wishes the option to enter into a contract with a quantity less than the specified annual quantity in the event that the bidder’s offer is a marginal offer, cf. section 5.8.

### 3.7 Bid cap

The bidder shall submit an offered rate per tonne captured and stored CO<sub>2</sub>. The DEA will establish a maximum bid cap that the evaluation amount must not exceed. The evaluation amount is the offered rate per tonne CO<sub>2</sub> plus an evaluation-technical supplement reflecting possible savings or reimbursement of CO<sub>2</sub> taxes<sup>14</sup> that implementation of CCS would entail for the bidder in question, see also section 5.5. Offers with an evaluation amount exceeding the bid cap will not be considered.

The purpose of the bid cap is to ensure mature projects and support competitive pricing.

### 3.8 Exit Clause

The operators will have a certain flexibility to exit (“termination for convenience”), which will make it possible to withdraw from the contract.

The exit clause can come into effect at the earliest by January 1st 2036 with a minimum of two (2) calendar years notice. This means that the notice can be submitted December 31st 2033 at the earliest. The exit option is designed to ensure that the expected reductions to the 2030 target are delivered, and in order to give the DEA an opportunity to conduct a new competitive bidding process.

No fee will be applied for the operator’s termination for convenience.

Regarding termination for cause, see section 4.5.

### 3.9 Extension of time

The Operator is only entitled to a postponement of the COD to the extent that one of following circumstances in clause iii) in items a) – d) renders it impossible for the Operator to timely achieve the COD and under the conditions that the relevant circumstance:

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<sup>14</sup> The CO<sub>2</sub> taxes in question are: 1) Emission tax (in Danish: *emissionsafgift*) as governed by Act on taxation of CO<sub>2</sub>e-emissions from quota covered sectors (Act on emission tax) no. 182 of 4 June 2024; and/or 2) CO<sub>2</sub> tax (in Danish: *CO<sub>2</sub>-afgift*) as governed by Act on carbon dioxide tax on certain energy products, cf. consolidation Act no. 1353 of 2 September 2020 with later amendments thereof, including e.g. by Act amending the Act on carbon dioxide tax on certain energy products, Act on energy tax on mineral oil products, etc., Act on tax on natural gas and city gas, etc., Act on tax on hard coal, lignite and coke, etc. and various other laws<sup>14</sup> no. 183 of 4 June 2024.



- i) could not be foreseen at the deadline for submission of the Operator's offer,
- ii) could not be overcome after the parties entered into the contract, including by timely dialogue with the authorities, amendments to the operator's solution (acceptable to the DEA), investments of work, money, etc. that are not clearly unreasonable taking the amount of subsidies to be granted under the contract into account, and
- iii) cannot in any other way be attributed to the Operator's own circumstances (including, for the avoidance of doubt, the circumstances of its sub-suppliers):
  - a) Injunctions or prohibitions by the authorities,
  - b) 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,
  - c) If the establishment of one or more elements of the value chain 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.
  - d) If the Operator (including for the avoidance of doubt, the sub-suppliers) has not received permits and/or approvals from authorities required to be able to achieve the COD at the date specified Operator's offer.

The Operator is furthermore entitled to a postponement of the COD in case of a Force Majeure event.

If the Operator considers that it is entitled to a postponement of the COD, 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 circumstance(s) claimed, and that the delay cannot be avoided or mitigated.

A possible postponement of the COD shall be limited to correspond to the actual delay caused by the relevant circumstance in items a) - d) above and shall take into account the Operator's obligation to prevent, avoid, overcome, absorb, minimise or mitigate the delay.

As a result of the postponement of the COD, the Quantity may be proportionally reduced in the year(s) affected by the postponement. The DEA will assess the circumstances and the actual delay on the basis of documentation from the Operator and, if justified, grant a postponement of the COD.

The Operator shall not be entitled to an increase of subsidies or any other additional payment or compensation in case of a postponement of the COD. This also includes any extension of the subsidy period.

If circumstances in clause iii) under items a) - d), continue beyond twelve (12) months after the Operator's notification, the DEA is entitled – but not obliged – to



terminate the contract and no party shall have any claim against the other party based on the termination.

### 3.10 Changes in the value chain during the contract

The DEA will include regulation in the contract regarding the Operator's access during the contract to make permanent or temporary changes to the value chain which is encompassed by the Operator's solution description in the offer, including e.g. changes related to the carbon capture plant, the means of transport of CO<sub>2</sub> and the storage site.

The regulation is expected to include predefined terms and conditions for the circumstances that may trigger the Operator's access to make permanent and temporary changes to the value chain. Furthermore, the regulation is expected to include predefined terms and conditions in relation to requirements which must be fulfilled by the Operator to use the change access.

The regulation will entail that the Operator is not required to follow the change management process, if the change falls within the scope of the regulation.

### 3.11 Force Majeure

The DEA proposes a Force Majeure clause as follows:

3.11.1 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.

3.11.2 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 the list in brackets 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.

3.11.3 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.

3.11.4 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 3.11.1-3.11.2; and
- b) the person whom the Operator has engaged would be so exempt if clauses 3.11.1-3.11.3 were applied to him.

#### 3.11.5 Continued force majeure

If the Force Majeure event continues beyond twelve (12) months after a Party's Force Majeure notification under clause 3.11.1., 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).

### 3.12 Guarantee

The winning bidder will have to provide a 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 have 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 favor 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.

A draft performance and warranty guarantee shall be submitted along with the indicative offer (INDO<sup>15</sup>) and a final version shall be submitted at the time of best and final offer (BAFO<sup>16</sup>).

The guarantor shall be domiciled in the EU / EEA.

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<sup>15</sup> In Danish: et indledende tilbud

<sup>16</sup> In Danish: endeligt tilbud



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.

### 3.13 Other requirements

For other requirements that the DEA intends to incorporate in the tender material please see the attached Draft Appendix 3, Requirements Specification.

## 4. Subsidy and penalties

### 4.1 Subsidy profile

Table 1: CCS Fund – Subsidy profile

Year	2029-2044	Total
Million DKK (2024-prices)	1.770	28.322

**Note: Subsidy profile includes VAT payments and coverage of potential derived tax losses**

The CCS Fund shall cover potential derived tax losses that stem from the award of contract(s) to bidders who will avoid national CO<sub>2</sub> taxes by capturing and storing their CO<sub>2</sub> emissions. As such, the calculation of the annual subsidy cap depends on the composition of the final contract recipient(s). The annual subsidy cap for the period 2029-2044 can, at most<sup>17</sup>, be 1.770 million DKK (including VAT).

### 4.2 Annual Adjustment of subsidy

The overall principles of the subsidy and economy scheme are outlined below. For further information, the DEA refers to Appendix 4 *Description of the subsidy and economy scheme*, which includes a description of the DEA's current overall

<sup>17</sup> If none of the contract recipient(s) are subject to national CO<sub>2</sub> taxes.



assumptions and considerations regarding the payment of subsidies, including adjustment mechanisms, invoicing and final settlement.

The subsidy will be paid per tonne of CO<sub>2</sub> captured and stored in accordance with the contract, including requirements regarding verification and documentation.

Subsidy will only be paid for permanent, geological storage of the contracted quantity. The Operator is not remunerated or compensated for any costs by the DEA other than the subsidy per tonne of CO<sub>2</sub>. Further, the CCS fund is a funding governed by statutory appropriation with expenditure ceiling (in Danish: *Lovbunden bevilling under udgiftsloft*). This implies that unused subsidy for a year cannot be postponed or transferred, in whole or in part, to the subsequent years.

The subsidy will be based on a rate per tonne of CO<sub>2</sub> offered by the bidder (the Offered Rate) with the following adjustments:

- Adjustments due to inflation
- Adjustments regarding European Union Allowances
- Adjustments regarding CO<sub>2</sub> related taxes
- Adjustments regarding carbon credits related to the storage of CO<sub>2</sub>
- Adjustments regarding biogenic and atmospheric CO<sub>2</sub> in relation to EU Emissions Trade Scheme or similar EU-mandated trade scheme, if this becomes relevant due to amendment of legislation.

As a general rule the adjustments can only reduce the subsidy.

### 4.3 Other funding in relation to the same eligible cost

The total amount of public funding, including State aid, de minimis aid and centrally managed Union funding, in relation to the same eligible cost must not lead to overcompensation.

Interested bidders are encouraged to seek legal advice if the bidder has or intends to apply for other public funding than encompassed by this subsidy scheme, to ensure that public funding obtained (aside from funding from this subsidy scheme) will not conflict with CEEAG.

In regards of funding from the EU Innovation Fund, economic operators are also encouraged to consult the European Climate, Infrastructure, and Environment Executive Agency (CINEA) regarding how funding from the EU Innovation Fund and this subsidy scheme can be combined.

### 4.4 Penalties

There will be a penalty scheme for non-performance. The proposed penalty scheme is outlined in the following.

The Operator has the opportunity to store from 2029 and will be obliged to store the annual contracted quantity ( $Q_k$ ; tonnes CO<sub>2</sub> per year) in the years 2030-2044.





Penalties are imposed for a two-year period from COD. However, if the COD is in 2029, the penalty period will constitute the years 2030-2031, meaning that non-performance in 2029 will not be subject to penalty.

Further, reference is made to remarks for termination for convenience, cf. section 3.8, and for termination for cause, cf. section 4.5.

The penalty will be calculated as the non-performed contracted quantity as follows:

$$\text{Penalty}(Q_f) = 1/2 * p_k * (Q_k - Q_f), \text{ where}$$

*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 contracted quantity*

The penalty level will constitute fifty percent (50%) of the offered rate per tonne of CO<sub>2</sub> not delivered. This means that the maximum penalty over the two years from COD (at the earliest from 2030) will amount to one year's total subsidy.

The penalty will not apply in case of e.g.:

- Force majeure, cf. section 3.11.
- Reduced demand for the main product,
- Efficiency improvements in the main activity, and
- The capture plant and/or any other CCS installation, after COD, by public order is ordered to reduce or temporarily stop operation.

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 fossil or biogenic 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 production or energy optimisation leads to reduced CO<sub>2</sub> generation from the source to a level which makes it impossible for the operator to deliver the contracted quantity.

“By public order” refers to the situation where a public authority, with the necessary legal authority, requires the operator to reduce or stop operation e.g. at the capture plant due to the stability of the electricity grid. Furthermore, the operator will not be remunerated for lost subsidy under the contract for non-performance due to such a public order. The bidder should note that there will be no specific provisions in the subsidy contract that regulate the DEA's options to reduce or stop production.

Other 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.



## 4.5 Termination for cause

The DEA is entitled to terminate the contract with immediate effect, in whole or in part, in case of material breach of the contract. Material breach entitling the DEA to terminate the contract for cause shall include, but not limited to, the following:

- a) If the Operator is in delay in achieving the COD by more than twelve (12) months, or, if the COD has been postponed, calculated from the date that the COD has been postponed to.
- b) Non-performance of the Operator with respect to the annual quantity in two (2) consecutive calendar years by 25 % of the CO<sub>2</sub> or more in each year.
- c) Material breach of any of the operator's warranties under the contract.
- d) The operator's substantial and repeated and / or ongoing non-performance of its obligations.

In case the DEA terminates the contract for cause, the Operator will be imposed a termination fee, constituting fifty percent (50%) of the offered rate per tonne of CO<sub>2</sub> not delivered over a two years period. This means that the maximum termination fee for the two years of consecutive non-performance will amount to one year's total subsidy.

In case of overlap between the Operator's penalty period and the period in which the Operator's consecutive non-performance results in a termination for cause, any penalty incurred by the Operator will be deducted from the termination fee.

Regarding termination for convenience, see section 3.8.

## 5. Competitive bidding process and award of contracts

The aid under the CCS Fund will be granted through one competitive bidding process. The competitive bidding process will be conducted as a negotiated procedure (in Danish: Udbud med Forhandling) in accordance with the rules and principles of section II of the Danish Public Procurement Act, which implements the EU's Public Procurement Directive<sup>18</sup> into Danish law. The procedure entails that candidates that are interested in participating in the competitive bidding procedure must as a first step apply for prequalification.

Secondly, the prequalified bidders are invited to submit an INDO that will serve as the foundation for the negotiations.

Thirdly, the negotiation procedure will take place. The bidders have the possibility to adjust and optimise their offer in accordance with e.g., the award criteria during negotiations. At the same time, the bidders may propose that the DEA adjusts the specified contract requirements. Once the negotiations are finished, the DEA will

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<sup>18</sup> Directive 2014/24/EU of the European Parliament and of the Council of 26 February on public procurement and repealing Directive 2004/18/EU.



make necessary adjustments to the contract and tender documents – if any – and publish the updated version to the bidders in order to allow them to submit their BAFO.

## 5.1 Prequalification

During the prequalification, the DEA will assess the candidates based on their:

- Economic and financial standing, and
- Technical and professional ability.

While all candidates must fulfil the economic and financial requirement, technical and professional ability will be used to select among candidates.

The DEA plans to set the maximum number of prequalified candidates on the basis of an analysis of the market, while also taking into consideration the competition pressure and significant transaction costs incurred by bidders by participating in a negotiated procedure.

## 5.2 Economic and financial standing

As a minimum requirement, the candidate will be required to present a positive (above zero) equity for the latest financial year prior to prequalification application.

## 5.3 Selection of candidates

If more candidates - than what have been set by the DEA as the maximum number of prequalified candidates - fulfil the minimum requirements regarding economic and financial capacity and are not covered by any of the applicable exclusion grounds, the selection of candidates invited to the competitive bidding process will be based on an evaluation of the following criteria:

- Which candidates have demonstrated the most relevant experiences with CCS activities (carbon capture, transport and storage), such as demonstration projects, pilot projects and research projects.
- Which candidates have demonstrated the most relevant experiences with acquiring and establishing plants or platforms and/or modifying or expanding plants or platforms and commissioning hereof.

## 5.4 Organisation

Candidates can participate in the bidding process irrespective of whether the candidate is a single operator, the candidate relies on the technical and professional ability and/or financial and economic capacity of other entities to fulfil the suitability requirements, or the candidate is a group of operators (e.g., a consortium). It will e.g. be possible to use an SPV (Special Purpose Vehicle).



If the candidate is a group of operators (e.g., a consortium), the participants of the group will be required by the DEA to undertake joint and several liability for the performance of the contract.

If the candidate relies on the economic and financial capacity of other entities in relation to the suitability requirements (regarding financial capacity), the candidate and the entities in question will be required by the DEA entity to undertake joint and several liability for the performance of the contract.

## 5.5 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:

- *Subsidy* (weight 80%) evaluated on basis of the evaluation amount, which means the offered rate plus a calculated evaluation-technical supplement
- *Project maturity* (weight 20%) evaluated based on the information provided by the bidder, considering different aspects of maturity, for example, technical and operational maturity.

For each sub-criteria, bidders will be allocated points from 0 to 10. The overall score for the final award criterion best price-quality ratio is the weighted average of the points allocated under the two sub-criteria.

For the sub-criterion subsidy, 10 points will be attributed to the bidder with the lowest evaluation amount. The evaluation amount is the offered rate per tonne CO<sub>2</sub> plus an evaluation-technical supplement reflecting possible savings or reimbursement of CO<sub>2</sub> taxes that implementation of CCS would entail for the bidder in question. This price adjustment aims at assuring that the aid under the CCS Fund should be granted to projects with the lowest cost for the Danish state in the form of aid expenditure and foregone CO<sub>2</sub> tax revenue.

For the sub-criterion project maturity, the DEA will award points based on a descriptive scale from 10 points for excellent down to 0 points for irrelevant.

## 5.6 Evaluation model

For the evaluation of which offers have the best price-quality ratio, the DEA uses the following evaluation model which is divided into three phases:

Phase 1: Initially, the DEA will evaluate all compliant offers in relation to the qualitative sub-criterion "Project Maturity". Each offer will be awarded one overall point from 0 points (minimum) to 10 points (maximum) for the sub-criterion "Project Maturity". An offer, which is awarded 5 points (corresponding to Satisfactory on the descriptive scale) or a higher point (i.e. 6, 7, 8, 9 or 10 points) for the sub-criterion "Project Maturity", will proceed to Phase 2. An offer, which is awarded less than 5 points (i.e. 0, 1, 2, 3 or 4 points), will be rejected and will therefore not proceed in the evaluation.



Phase 2: The DEA will evaluate the offers that proceeded from Phase 1 to Phase 2 in relation to the financial sub-criterion “Subsidy”. Each offer will be awarded one point in accordance with a financial framework from 10 points (maximum) to 0 points (minimum) for the sub-criterion “Subsidy”.

Phase 3: After the evaluation of the offers in relation to the sub-criterion “Project maturity” in Phase 1 and sub-criterion “Subsidy” in Phase 2, the DEA will identify the offer(s) with the best price-quality ratio by calculating the overall number of points for each offer. The overall number of points of each offer is calculated by comparing the total weighted number of points achieved by the offers under the sub-criteria “Subsidy” (Phase 2) and “Project maturity” (Phase 1). The offer(s) having achieved the highest number of points will be found to have offered the best price-quality ratio.

A contract will be awarded to the bidder(s) that submit an offer, which is compliant with the requirements set out in the tender documents, and with highest scores, and that can be kept within the available funds.

## 5.7 Awarding multiple contracts and ranking

The DEA has the possibility to award multiple contracts for the capture, transport, and storage of CO<sub>2</sub>.

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.

## 5.8 The Marginal Offer

As the competitive bidding process is open for more than one contract (with varying volumes of CO<sub>2</sub>) and the annual subsidy cap is fixed, cf. section 4.1, a situation could arise in which case there will be a “marginal offer”. The “marginal offer” is the offer with the highest evaluation score after the offers that can be fully accommodated within the available annual funds (“the next offer in line”). The marginal offer complies with the requirements set out in the tender conditions, but if the DEA awards a contract, it would entail that the available annual subsidy cap would be exceeded. To the extent, that the marginal offer includes an offer of reduced annual quantity (i.e. a quantity less than the specified preferred annual quantity, but equal to or above the minimum annual quantity of 100.000 tonnes of CO<sub>2</sub> (cf. section 3.6)), which can be accommodated within the remaining available funds, the DEA will award such a contract, encompassing the reduced annual quantity, to the bidder.

Note, the bidder of the marginal offer will not be given the opportunity to accept or reject the award of a contract as this will be based on the bidder’s offered rate and offered reduced annual quantity.



If an award of a contract cannot be made to the “marginal offer”, the DEA will not award further contract(s).

## 6. Participating in the dialogue

The deadline for submitting inputs is:

**20 August 2024**

Inputs can be submitted by e-mail under the headline “Public consultation CCS Fund” to [ccs-puljer@ens.dk](mailto:ccs-puljer@ens.dk) with copy to [makp@ens.dk](mailto:makp@ens.dk).

The DEA may ask a limited number of consultation participants specific additional questions and/or invite a limited number of consultation participants to participate in dialogue meetings if found relevant by the DEA.

## 7. Preliminary timeline and next steps

The DEA plans to publish a contract notice and the tender material in October 2024, which will mark the initiation of the actual tender procedure.

As described in the section above regarding the tender procedure, the DEA will grant the aid following the principles of the Danish Public Procurement Act, which sets strict limits for what can be changed in a tender/aid scheme after the initiation of the competitive bidding process without annulling the process and starting anew.

The DEA aims at the following timeline for the CCS tender:

<b>Tender stage/Notification process</b>	<b>Timeline</b>
Public consultation	June – August 2024
Publication of the tender material	October 2024
Deadline for application for prequalification	January 2025
Deadline for indicative offer (INDO)	May 2025
Deadline for best and final offer (BAFO)	November 2025
Contract award	April 2026

The output of the public consultation will serve as input for the DEA’s final design of the tender documents.

We look forward to receiving your response no later than 20 August 2024 23:59.