Cluster Sequencing for Carbon Capture Usage and Storage Deployment: Track-1 Expansion

ICC Project Plan



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# Contents

[Contents 3](#_Toc149914851)

[ICC Project Plan Introduction 4](#_Toc149914852)

[Important information regarding this process 5](#_Toc149914853)

[Disclosure of information 7](#_Toc149914854)

[Glossary of terms 8](#_Toc149914855)

[Definitions 10](#_Toc149914856)

[Units 11](#_Toc149914857)

[1. Applicant information 13](#_Toc149914858)

[2. Eligibility 14](#_Toc149914859)

[3. ICC Project Overview 16](#_Toc149914860)

[4. Deliverability 19](#_Toc149914861)

# ICC Project Plan Introduction

In December 2023, the Department for Energy Security and Net Zero (DESNZ) launched the Track 1 expansion process for the HyNet cluster with the aim of filling the remaining transport and storage capacity expected to be available in 2030, to support HMG’s ambition of storing and capturing 20-30Mt CO₂ per year.

This form accompanies the opening of an application window for Projects to apply to expand the HyNet cluster, and should be read alongside the HyNet Track 1 Expansion Application Guidance Document to understand what is required to submit and why, the timelines for submitting clarification questions and submitting your final application form. You should note in particular that the caveats and reservations set out in Chapter 2 of the Track-1 Expansion Guidance document apply equally here.

DESNZ is seeking to fully utilise the capacity of Track-1 Clusters through a Track-1 Expansion (Track-1x) process.

This document sets out the questions that ICC projects should answer as part of their Track-1x submission. The information and relevant supporting evidence provided by capture projects within the completed Project Plan will, alongside the Initial Cost Information Form (Annex B2) and Financial Statement Form (Annex C), and the Economic Benefits Form (Annex D), form the basis of the assessment to determine which capture projects are shortlisted. This document is an Annex to the Track-1x Guidance Document and should be read alongside it. Please see the Track-1x Guidance Document for further guidance on the assessment process, including how the information will be assessed and note that the caveats and reservations set out in Chapter 2 of that document apply equally here.

The Track-1x CCUS Cluster Sequencing Process will be run by the Department for Energy Security and Net Zero (DESNZ). If applicants have any general questions about the submission process or about filling in any part of the submission documentation, please email queries to ccust1x@energysecurity.gov.uk.

## Important information regarding this process

* **The deadline** for finalised Track-1 Expansion submissions is 23:59 on 28 March 2024.
* The assessment process will be run fairly, transparently, and objectively in accordance with the published Track-1 Expansion guidance.
* The information provided within this form will be used throughout the Track-1 Expansion process and the negotiations/due diligence phase. Entering a negotiation does not mean that a contract will be awarded. Any decision to award support would only be made subject to the successful completion of any negotiation and due diligence.
* Further timetable details for this process are set out in the Track-1 Expansion Guidance Document.
* DESNZ will not be responsible for any costs incurred in the preparation of any submission, irrespective of whether the capture project is successful in the Track-1 Expansion process.
* Projects will need to satisfy the eligibility criteria to be considered in the Deliverability Assessment.
* The evaluation will be based on Deliverability only. Cost and Economic Benefit information will also be collected. Cost information provided will inform shortlisting and value for money assessment. Economic benefits data will not be considered when assessing Projects against the eligibility criteria and will also not be considered as part of the deliverability assessment. However, capturing the economic benefits of Net Zero is an important priority for UK government and to do this we need to develop robust, resilient, UK supply chains. If Applicants are shortlisted to go through to negotiations and/or offered access to the T&S network, HMG may ask the Applicant to submit or publish more detailed plans on supply chains, skills and economic benefits.
* This document, the ICC Project Plan, is divided into four sections:
	+ Section 1, Applicant Information.
	+ Section 2, Eligibility, information submitted in this section will be used to determine the eligibility of the ICC Project.
	+ Section 3, ICC Project Overview, information submitted in this section will be used to improve DESNZ’s understanding of the Project and may also be used to inform the Deliverability assessment.
	+ Section 4, Deliverability, information submitted in this section will be used to assess the project against the Deliverability criteria set out in the Track-1x guidance document.
* Alongside the ICC Project Plan the assessment of the Project will be supported by the submission of several forms:
	+ Annex B2 – Initial Cost Information Form will be used to collect the cost data for the ICC Project.
	+ Annex C - Financial Statement Form will be used to assess of the financial and commercial health of participating companies within the Deliverability criterion. This form should be considered supplementary to the questions to assess the Project’s deliverability. The figures included in the form should be supported by relevant accounting notes and documentation.
	+ Annex D – Economic Benefits Form seeks to understand how key components and services required to deliver the Project will be sourced; how risks that may affect the supply of these key components may be mitigated; and how Projects are engaging with new entrants and small and medium-sized enterprises (SMEs).
* Across the assessment DESNZ will place significant emphasis on the credibility and consistency of information provided.
* Information provided in the Eligibility and Project Overview section will be used to inform the Deliverability assessment. This is to allow for consistency and credibility checks and not so answers can be continued in other sections. Any obvious continuation of answers will be removed.
* After the ICC Project submissions have been individually assessed, DESNZ will carry out a Shortlisting Process, which has been designed to enable us to ensure the overall outcome of the process meets the strategic objectives of the Track-1 Expansion process and Department as a whole. The process used for this step is described in Chapter 9 of the Track-1 Expansion Guidance Document.
* DESNZ reserves the right not to accept any submission and reserves the right to cancel the process before it has completed or at any time before any support has been awarded.
* DESNZ reserves the right not to consider a submission further if an applicant fails to disclose information requested.
* Each individual piece of supporting evidence can be referenced multiple times in the ICC Project Plan but should be uploaded only once to the portal.
* Please note that the word limit does not cover the references sections. This is so applicants can be specific as to where information can be found in any documents provided. If this section is used to continue answers, the words will be removed before the assessment.
* Any information provided above the word limits will be removed before information is provided to assessors and will not count towards the score. We will remove words in excess of the count from the end of the relevant question or section. This will be completed before the documentation is provided to assessors.

## Disclosure of information

Reasons for decisions on submissions will be recorded at all stages for good administration and to ensure that there is a clear audit trail for all decisions. Administrative records will be maintained for all submissions irrespective of whether they are successful or not.

Please refer to Chapter 2 (Process Overview) of the T1x Guidance Document for additional detail on entry into non-disclosure agreements and Chapter 3 (General Considerations) for additional detail on parties involved in the T1x process.

All information provided by applicants may be disclosed in accordance with DESNZ’s legal obligations (including under the Freedom of Information Act 2000 (FOIA), the Data Protection Act 2018, General Data Protection Regulation (GDPR) and the Environmental Information Regulations 2004 (EIR) in the event that a request for information is received). More information on the FOIA, Data Protection Act (2018), GDPR and EIR (including information on exemptions) can be found at: <https://ico.org.uk/for-organisations/>

To help DESNZ deal with information requests and without prejudice to the paragraph above, in the box below, please set out the reasons why you consider any specific information should not be disclosed, including (if possible) by reference to the specific exemption contained in the relevant legislation (for example, because disclosure of the information would prejudice your commercial interests under section 43 of the FOIA), explaining why this is the case.

Where appropriate, please also state whether you consider the reason(s) information should not be disclosed by DESNZ only apply for a particular time period. If we receive an information request, we will consider your views as stated on the submission form. However, DESNZ will ultimately decide how to respond to an information request and whether any information should be withheld, subject to the Information Commissioner's Office decision in the event of the requestor appealing the decision.

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| Please detail what specific information, if any, within this submission should not be disclosed and the reasons why. Please include (if possible) reference to the specific exemption contained in the relevant legislation. |
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## Glossary of terms

Table 1 – Acronyms

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| Acronym | Definition |
| ACT | Advanced Conversion Technologies |
| ATT  | Advanced Thermal Treatment  |
| BECCS | Bioenergy with Carbon Capture & Storage |
| CaaS | Capture as a Service |
| CaaSCo | Capture as a Service Company  |
| CHP  | Combined Heat and Power  |
| CHPQA | Combined Heat and Power Quality Assurance  |
| CO₂ | Carbon Dioxide  |
| COD | Commercial Operation Date  |
| DESNZ | Department for Energy Security and Net Zero (formerly a part of BEIS) |
| DPA | Dispatchable Power Agreement |
| EfW | Energy from Waste  |
| EIR | The Environmental Information Regulations 2004 |
| EOI | Expression of Interest |
| FID | Final Investment Decision |
| FOIA 2000 | The Freedom of Information Act 2000 |
| GDPR | General Data Protection Regulation |
| HMG | His Majesty’s Government |
| ICC | Industrial Carbon Capture |
| Ktpa | Kilo-tonnes per annum |
| MoU | Memorandum of Understanding |
| Mtpa | Megatonnes per annum |
| MWh or MW | Mega-Watts per hour or Mega-Watts |
| OpEx | Operating Expenditure |
| OCP | Operational Conditions Precedent |
| pBECCS | Power Bioenergy with Carbon Capture and Storage |
| SIC | Standard Industry Classification  |
| SME | Small and Medium-Sized Enterprise |
| T1x | Track-1 Expansion |
| T&S | Transport and Storage Network |
| T&S Co | Transport and Storage Company is a licensed company operating and maintaining a T&S Network (T&S Operator) |
| tpa | Tonnes per annum |

## Definitions

Table 2 – Definitions

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| Term | Definition |
| Applicant | Legal entity that intends to apply for support, and will be taken through to negotiations if successful (see also Project Representative). |
| Battery Limit | The geographic boundaries identifying scope of works for process units or the Project. |
| Business Model(s) | Contract mechanisms to support the implementation and operation of CCUS Clusters. |
| Capture as a Service (CaaS) | Service provided by a third party to capture emissions on behalf of an industrial emitter(s).  |
| CaaSCo | A company offering to capture emissions on behalf of an industrial emitter(s). |
| CaaS Group | The industrial emitters and the CaaSCo involved in CaaS.  |
| CCS or CCUS | Carbon Capture and Storage or Carbon Capture, Usage and Storage |
| Cluster | T&S Network (incorporating the onshore and offshore network and offshore storage facility) and associated capture Projects. |
| Commercial Operation Date (COD) | The date the plant is confirmed to meet the Operational Conditions Precedent (OCP) and the Project begins operating and transporting captured CO₂ emissions to permanent storage. |
| Cross Chain | All elements of the cluster including development, delivery and operation of all Emitters as well as Onshore, Offshore and storage infrastructure. |
| Final Investment Decision (FID) | FID is the point in the project planning process when the decision to make major financial commitments is taken and contracts are signed for engineering, procurement, and construction. |
| Hydrogen Production | CCUS-enabled hydrogen production. |
| ICC Project | An industrial facility including carbon dioxide emission source(s) targeted for abatement.For the purpose of this assessment, an ‘industrial facility’ is defined as a: facility; orpart of a facility (which can include an industrial process or collection of industrial process(es));which manufactures products, treats materials and/or provides services for use in or as part of an industrial process or collection of industrial process(es) and falls within one or more eligible sectors. For CaaS Group Projects, emitters within the Group must all individually meet the definition of an industrial facility as set out above. |
| Minimum CO2 supply rate | The CO2 flow below which the CaaS plant cannot operate |
| Operational Conditions Precedent | Conditions that must be satisfied, or waived, in order for payments under the Contract to commence. |
| Offtaker (hydrogen) | In the context of the Track-1 Expansion process, an offtaker is both the end user of low carbon hydrogen and, where relevant, any intermediary party who may purchase and resell hydrogen to end users. Where there is an intermediary party or where end users do not purchase hydrogen directly from producers, information and evidence of both end users and the intermediary need to be included in the submission form. |
| OCP Design Capture Rate | The design capture rate expected to be achieved during the OCP test. |
| Operational Conditions Precedent | The Operational Conditions Precedent (OCPs) are a set of requirements a Project must demonstrate to the appropriate counterparty to prove that they have commissioned their facility and are ready for commercial operations. The OCP requirements are outlined in the relevant business model Terms and Conditions. |
| Project | Power CCUS, ICC including Waste ICC, Hydrogen, GGRs or pBECCS production facility – including carbon dioxide emission source(s) targeted for abatement – development and its associated CO₂ capture facilities, that will be assessed in the Track-1 Expansion process. |
| Project Representative | Legal entity responsible for accessing the submission Portal and submitting the Project Plan and associated Annexes to DESNZ. The Project Representative is expected to be from the primary, or partner, organisation responsible for Project development. For Capture-as-a-Service (CaaS) this must be a CaaS Group Lead. Project Representative may be the same person as the Applicant. |
| Storage | Geological store for the captured CO₂ from the end of the injection well. |
| Submission | The total submission submitted by the Project including the Project Plan and associated Annexes. |
| Transport & Storage Network (T&S Network) | The network consisting (wholly or mainly) of:• pipelines used for the transportation of captured carbon dioxide from one capture plant to a storage facility or to or from any T&S Network; or• routes used for the transportation of captured carbon dioxide from one capture plant to a storage site or to or from any T&S Network; and• storage site for the geological storage of carbon dioxide. |
| Unsupported Project | This has the meaning given to it in Chapter 3.3 of the T1x HyNet Process – Application Guidance.  |

## Units

Where possible please use units of measurement defined by the International System of Units (SI) within your answers. For example:

* Electrical energy or Power: MWh or MW.
* Thermal energy or Power: MWh or MW.
* Gas energy or Power: MWh or MW – Gross Calorific Value basis.
* Gas calorific value: MJ/kg – Gross Calorific Value basis.
* CO2 flow rate: mass basis – tonnes per annum, (tpa, ktpa or Mtpa) for annual average or total annual flow rate. Instantaneous or peak flow rates should be provided in tonnes per hour (tph).

## Applicant information

Contact information will be collected through the Expression of Interest process. Completed versions of this document, ICC Initial Cost Information Form (Annex B2), Financial Statement Form (Annex C), and Economic Benefits Form (Annex D) are to be uploaded to the individual sharepoint site alongside any supporting evidence.

## Eligibility

Eligibility Criteria are fully described in the Track-1x Guidance Document.

Note: For CaaS Groups, individual industrial emitter within the Group must all individually meet these criteria, if applicable.
For CaaS Groups, word limits in this eligibility section will be increased to apply per individual emitter within the group.

Eligibility will be checked against the evidence submitted within this section, Section 3, and Section 4. Applicants will be notified via email on whether or not they have met the eligibility criteria. Only eligible Projects will progress to the next stage where they will progress to the Deliverability Assessment.

Please confirm and evidence how the ICC Project meets the Eligibility Criteria and provide appropriate supporting evidence for the following requirements.

**The Applicant must be incorporated and registered in the UK. (250 words)**

Supporting evidence is expected to include a UK company registration number demonstrating that the Applicant is incorporated and registered in the UK.

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**Evidence:**

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| Document reference | Document name | Relevant page/section |
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**Must be able to demonstrate direct, onshore, pipeline access to the HyNet T&S Network, with no intermediate non-pipeline transportation of CO₂ (250 words)**

Evidence of access to a T&S Network should include as a minimum:

* an MOU with the T&S Co.;
* a high-level pipeline connection study including routing of intermediate pipelines or pipework to connect to the T&S.

The connection study need not be detailed for this eligibility criteria but must identify onshore, direct, pipeline route options between the project site and connection point to the T&S Network. Further detail, if available, would be beneficial for the Deliverability assessment question 4.6.

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**Evidence:**

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**Must be able to be operational no later than the end of December 2030 (250 words)**

Supporting evidence is expected to include a project schedule.

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**Evidence:**

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**Must be located onshore in the UK. (250 words)**

Supporting evidence could include a site layout or map and proof that the facility is located above mean low tide (with the exemption of jetties or loading facilities).

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**Evidence:**

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**Must meet the definition of an industrial facility (250 words)**

Supporting evidence is expected to the company’s SIC codes. Projects which could reasonably be classified under the eligible SIC codes but are registered with a non-eligible SIC code may also be eligible and should provide evidence for that they would meet the definition of an industrial facility.

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**Evidence:**

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**Must deploy an eligible CCUS technology (250 words)**

Supporting evidence could include a basis of design, process summary or other engineering study showing the technology and configuration.

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**Evidence:**

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**Must be designed to meet a minimum capture rate of at least 85% (250 words)**

Supporting evidence could include a basis of design, mass balance, flow diagram or table, performance guarantee, or engineering study.

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**Evidence:**

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### Additional evidence requirements for Projects in the Oil and Gas, CCUS-enabled Hydrogen, Waste Management or CHP sectors only

**Oil and gas (250 words)**

If the Industrial Capture Project is an oil and gas Project, applicants must provide the following:

Evidence that the Project is at an onshore oil and gas facility. Such evidence could include a site layout or map and proof that the facility is above mean low tide (with the exemption of jetties or loading facilities).

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**Evidence:**

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**CCUS-enabled Hydrogen (250 words)**

If the Industrial Capture Project is a CCUS-enabled hydrogen Project, applicants must provide the following:

Evidence that the Project is retrofitting CCUS onto an existing “grey” hydrogen facility. Such evidence could include proof that they are operational through executed fuel supply agreements, offtake agreements or environmental permits with an operational date in the past.

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**Evidence:**

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**Combined Heat and Power (250 words)**

If the Industrial Capture Project is a CHP Project where the CHP facility’s flue gas stream is not combined with other industrial process(es) streams directed to the capture plant, applicants must provide the following:

Evidence that at least 70% of the energy output of the CHP facility is, or will be by the time CCUS operations (for new build or otherwise), utilised by industrial facilities[[1]](#footnote-2). This could include the capacity of the CHP facility, identifying end user(s), information on the type of industrial activity taking place at the site of the end user(s), details of the amount of heat and electricity used by the identified end users in relation to the total output of the CHP facility. Where the energy is, or will be, supplied to third-party customer(s), contracts, provisional agreements or invoices for energy use could be given; or, where there is common ownership between the CHP and the industrial user of the energy, internal records demonstrating heat/electricity consumption could be given. For a new facility, evidence could be supported by the design parameters of the facility, such as the heat and material balances indicating electrical demand and steam consumption. Note: this is not required for cases where the CHP facility’s flue gas stream is combined with other industrial process(es)’ streams directed to the capture plant.

Note: This eligibility criteria does not apply to CHP-included projects, where the CHP facilities flue gas stream is combined with other streams directed to the capture plant.

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**Evidence:**

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**Waste Management**

If the Industrial Capture Project is a Waste Management project please confirm and evidence how the Waste ICC Project meets the following additional Eligibility Criteria and provide appropriate supporting evidence for the following requirements.

**Must process an eligible waste feedstock (250 words)**

Supporting evidence could include a list of intended waste codes, secured environmental permit or permit plans, waste supply contracts, basis of design or process description. Evidence should also include expected biogenic and fossil CO2 proportions generated for each year of the contract.

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**Evidence:**

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**Must be classed as an eligible waste management technology (250 words)**

Supporting evidence could include basis of design or process description.

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**Evidence:**

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**Must be classed as ‘energy recovery’ (for specified waste management technology types) (250 words)**

For EfW and ACT/ATT gasification-to-energy (i.e. electricity or heat) facilities, evidence that the plant is R1 rated (or will be at the time of CCS operations) is required. Evidence of this could include application forms or confirmation from the Environment Agency to prove R1 status. ATT/ACT facilities producing fuel will be deemed as ‘energy recovery’ due to the production of their outputs and are therefore not required to provide additional evidence.

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**Evidence:**

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## ICC Project Overview

### Project Overview

### ICC Project Description (2000 words)

The description of the Industrial Capture Project should include reference to appropriate supporting information to include, but not limited to the following:

*Note: CaaS Groups have a word count adjustment for this question using the base limit of 2000 words, plus 300 words maximum for each Project in the CaaS Group.*

1. Is the industrial facility in operation, construction or development? If the industrial facility and/or capture plant is in development, at what stage is it at? When is FID and/or operating date programmed/anticipated for the industrial facility and/or capture plant? For CaaS Group Projects, please elaborate on each entity in the Group.
2. The design life of the Industrial Capture Project, including the capture facility and overall and remaining plant life for any pre-existing plants. Please describe any plans for life extension.
3. Supporting evidence of engineering work completed and the status of ongoing work.
4. Annual profiles showing the anticipated CO2 capture mass flow rate, the net CO2 on-site emissions reduction, and any associated emissions for the Industrial Capture Project plant. These figures should be consistent with the capture rate and operating profile of the industrial facility and capture plant. A table or spreadsheet should be provided in evidence.
5. The captured and uncaptured CO2 sources within the ETS boundary of the industrial facility, including annual CO2 mass emissions.
6. A description of the capture process including capture rate, energy efficiency, any additional power / thermal energy requirements and the proposed technology type (including the extent to which this is a firm position).
7. An explanation of whether the project will capture and store biogenic emissions and if the project will generate negative emissions. If this is the case please provide quantities of biogenic and negative emissions. Projects are encouraged to provide detail of the feedstock used to fuel the facility.
8. The process design basis of the industrial facility. Projects may include any official documentation that describes the purpose of the facility, such as planning permissions or environmental permits. For CaaS Group Projects, please elaborate on each entity in the Group.
9. A concise description of the market for the industrial facility’s product(s) or services over the proposed CO2 capture operational period, and any confirmed offtakers or users. For CaaS Group Projects, please elaborate on each entity in the Group.
10. A description of the extent to which the industrial facility’s product(s) or services will be used regionally within the cluster, within the UK or exported. For CaaS Group Projects, please elaborate on each entity in the Group.
11. To what extent the Industrial Capture Project is dependent on future market sales / off-takers or other agreements (e.g., fuel supply) to be able to confirm programme delivery dates and volume certainties. For CaaS Group Projects, please elaborate on each entity in the Group.
12. For Waste Management projects, describe the outputs from the plant and the effect of installing carbon capture. For instance, the impact on net electrical output for an EfW, or for ATT/ACT the fuel or product output.
13. Whether CO₂ export to CO₂ users (CCU) is expected alongside storage of CO2 via the transport and storage network. For Projects looking to implement a combination of CCU and CCS, please include the estimated percentage of CO₂ stored from the Project’s captured CO₂ volumes per year for the duration of the contract length.

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### Capture-as-a-Service Project

### Capture as a Service (CaaS) Project Description (500 words)

*Note: this section is specifically for ‘Capture as a Service’ Projects receiving CO2 volumes from multiple independent industrial facilities. Such Projects will be considered as a group as one overall Industrial Capture Project. However, please note that there are certain criteria which are applicable to each individual industrial emitter, please refer to the Track-1 Expansion guidance for more details.*

Please describe the CaaS organisational structure and describe the commercial arrangements between the relevant industrial facilities and the CaaS organisation (CaaSCo).

Please describe the interconnecting infrastructure prior to the T&S delivery point demonstrating that:

1. emitters connect to the CaaS Co. by pipeline, with no intermediate non-pipeline transport; and
2. all CO2 pipeline transport prior to the T&S delivery point does not constitute a licensable activity involving the transport of CO2. Please provide evidence of engineering studies addressing the CaaS requirements including the interconnecting infrastructure. Describe any minimum criteria for CaaS viability, such as minimum CO2 supply rate.

Supporting evidence could include a site layout, drawings or process flow diagrams showing the interconnecting infrastructure, organisation chart, commercial agreements and engineering studies.

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**Evidence:**

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### ICC Project status and key metrics (250 words)

Please fill in the metrics within the table below. Any additional graphs to summarise the captured CO₂ profile would be beneficial. Please also refer to Annex B2 Initial Cost Information Form. Where metrics are repeated across annexes it is expected that the same figures and methodologies should be used.

|  |  |
| --- | --- |
| Metric | Value |
| Final Investment Decision date |  |
| Commercial Operation Date |  |
| Annual average CO2 export to the T&S to the end of 2050 (Mtpa) |  |
| Overall capital costs (£m) |  |
| Overall operational costs to end of 2050 (£m) |  |
| OCP Design Capture Rate(%)We define CO₂ capture rate (technology efficiency) as the percentage of CO₂ emissions captured from the specific emissions streams that the capture technology is applied to. |  |
| Application Rate (%)Defined as CO2 emissions captured from the specific stream(s) that the capture technology is applied to, as a percentage of total CO2 emissions on site (%). |  |

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| References to supporting documentation for Section 3.3 |
| Document reference | Document name | Relevant page/section |
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### Expansion Phases

This section is to describe whether there is planned follow on development of ICC at the site beyond the currently described project. Such project phases would be assessed outside of this current Track-1 Expansion process, but it is useful to understand the context and intentions for the site.

### Expansion of ICC Project (500 words)

Please provide a concise description of additional stages of development of the ICC Project, where relevant, whether this be multiple staged units or applying capture to additional CO₂ sources within the ICC Project site. Please include a description of the uncertainty around these future phases in terms of execution, offtake market, CO2 mass flow to the T&S, costs and capture efficiency. Only the phase that will be operational by 2030 shall be considered within this application for support via the T1x process.

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| References to supporting documentation for Section 3.4.1 |
| Document reference | Document name | Relevant page/section |
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## Deliverability

### Organisational and Technical Maturity

### Organisational structure – company level (750 words)

What is the company structure? Please provide a chart which positions the project vehicle within any wider company structure highlighting the following information for each entity within the structure:

1. Primary activity and location
2. Ownership (including details of any stock market listings)
3. Where within the company/group structure will key investment decisions be taken.
4. If a new legal entity is to be created for the purpose of this Project, where in the company/group structure this will sit and the expected timing of its incorporation.

Please provide a capability statement, which includes relevant corporate experience and identifies personnel with key roles and responsibilities. Please also provide brief details of the company’s approach to ensuring Corporate Governance best practice.

Please provide details of the ultimate beneficial owner of the corporate group, as well as the details of any shareholder (or group of related shareholders) owning more than 5% of the group’s equity capital.

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| References to supporting documentation for Section 4.1.1 |
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### Organisational structure and governance – project level (750 words)

Please describe the organisational structure at a project level including how the delivery of the Project will be managed and the experience of key personnel. Please describe the status of any commercial agreements between parties within the delivery structure alongside plans to progress future agreements, including key milestones and any dependencies.

Please also provide details of any new legal entity to be created for the purpose of this Project. Where relevant please include any anticipated joint venture arrangements or agreements alongside the activities and associated timeline to finalise any joint venture arrangements.

Please describe the capability of the project developers and governance arrangements.

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| References to supporting documentation for Section 4.1.2 |
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### Technical Maturity (750 words)

Please describe the level of project engineering definition providing the studies completed as evidence. With reference to the schedule, describe the studies to be completed and, where identified, who will complete them.

Please describe the project and provide supporting information detailing the following:

1. The location and layout of the project, clearly identifying related facilities and required third party connections;
2. Process description with schematics or process flow diagrams;
3. Engagement with the supply chain to date including technology providers, contractors (tier 1 contractors or beyond), equipment suppliers, consultants and external advisors, and planned future engagement;
4. Maturity of the supply chain for this type of project;
5. Access to intellectual property and demonstration of the technology at scale for both components and system with evidence of the operating record of the technology (e.g. duration in service). The CO2 capture quantities anticipated, capture rate, energy efficiency and any associated emissions;
6. For retrofit projects, the status and operation of any related facilities including remaining operational life and any planned life extension programmes;
7. The status of required land, access and third-party connections required to deliver the project such as electricity, fuel, or water. Note; there is a separate section covering the CO2 T&S connection.

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| References to supporting documentation for Section 4.1.3 |
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### Project Schedule (1000 words)

Please provide an integrated schedule for the ICC Project. This should be at least Level 2 detail, fully logic linked, including critical path and float. This should show when the ICC Project comes online, and any key milestones such as: planning, consents, decisions gates, long lead equipment items, gas and electricity grid connections if applicable, FID, COD, etc. This should also show progress to date against the stated Project schedule, with documentation and engineering information provided to demonstrate that the ICC Project is progressing to plan.

The schedule must be provided in both pdf and native file format - Primavera P6 (XER) or MS Project (XML/MSP).

Please provide a concise description of the schedule’s critical path with reference to important parts of the schedule that the critical path is dependent on.

Please describe the development of the project business plan and how this relates to other key activities in the programme including securing intellectual property rights, finance and supply chain.

We recognise different projects are at varying degrees of development, so please provide the greatest level of detail currently available that is supportable with evidence.

Please describe areas of uncertainty in the schedule: if possible, please present the Base schedule with uncertainty ranges around individual activities and identify the key risks that could expand these ranges further.

Reference to separate ‘What if’ scenarios or quantitative schedule risk analysis of the schedules would be beneficial to increase confidence of deliverability within a given time.

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| References to supporting documentation for Section 4.2 |
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### Planning and Consents (750 words)

With reference to the schedule, please provide a description of the planning and consents required for the Project and the route to securing those consents. This is expected to include planning consents and environmental permit. It would be beneficial to demonstrate evidence of engagement with the relevant planning and permitting authorities and their feedback, or expert advice on the most appropriate approach to planning and permitting.

Please ensure that you highlight areas of risk and uncertainty surrounding planning and consents that could increase the durations or require design modifications to achieve approvals.

Reference to a separate Planning and Consents Register would be helpful, as would any evidence of engagement with statutory bodies or preparation work for applications. We would anticipate planning and consent risk being an intrinsic element of the Project risk register.

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| References to supporting documentation for Section 4.3 |
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### Risk Management (1000 words)

Please provide a concise description of all the major risks to the ICC Project and how they are going to be mitigated. It would be beneficial to evidence the risk management approach with a risk management plan or reference to company procedures in compliance with industry standards such as [ISO 31000](https://www.iso.org/iso-31000-risk-management.html).

The separation of construction and operation phase risks would be preferable.

The risk registers should include:

* Risks for all elements of the Project and downstream chain risks, including interface risks and details on risk owners.
* Mitigations and how they will be managed (e.g., eliminate, reduce, transfer, insurance, etc.) alongside estimated mitigation costs.
* Identification of risks that cannot be transferred to contractors or insurers or others.
* Probability estimates both pre and post mitigation.
* Three-point (high, low and most likely) impact estimates for cost and schedule impacts for both pre and post mitigation.
* Identification of any schedule activities that are impacted by the occurrence of each risk.
* Activity IDs included in the risk register.
* Any significant residual safety risks.
* Highlight Project innovation risks and mitigations.

Below are examples of key risks that may need to be considered in relation to the ICC Project (noting that this is not an exhaustive list of possible risks and that certain market and cross chain risks are addressed in the proposed ICC business model):[[2]](#footnote-3)

Development risks including:

1. If existing assets (e.g. in a retrofit project) cannot be re-used after further assessment.
2. Delays in obtaining planning consents and permits or any required licence or connection agreements.

Construction and commissioning risks including:

1. Contractor interfaces.
2. Insolvency of key suppliers.
3. Supply chain delays and delivery delay of critical equipment items.
4. Workforce/ Key skills availability.
5. Commissioning dependencies including unavailability of downstream T&S.

Operational risks including:

1. Limited design and operational experience of type of plant.
2. Underperformance of capture plant, increasing vented volumes of CO₂.
3. Higher than expected energy consumption, increasing OpEx.
4. For pre- or post-combustion capture, higher than expected solvent consumption, increasing OpEx.
5. High emissions of pollutants (e.g. nitrogen compounds).
6. Low availability/high downtime of capture plant, increasing vented volumes of CO₂ and resulting in greater intermittency.
7. Delays or cancellations of downstream projects – stranded asset risk.
8. Closure/bankruptcy of T&S – leaving capture plant as stranded asset.

Overarching or general risks including:

1. Force majeure events.
2. Regulatory risks for new technology or processes, for example, hydrogen – natural gas blending or other novel processes.

To increase our understanding of the Project and its credibility, the inclusion of an opportunity register alongside the risk register would be beneficial for the assessment.

A quantitative risk assessment for cost and schedule where available would be beneficial to evidence confidence in the estimates.

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| References to supporting documentation for Section 4.4 |
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### Financial and Commercial

This section aims to understand the financial and commercial health of all the companies involved in the development of the ICC Project and the proposed financing plan for the ICC Project. To support this assessment, please submit copies of the Financial Statement Form (Annex C) and associated financial documents as requested in Annex C for each *Business plan and financial health – company level* response.

### A - Business plan and financial health – company level (750 words)

Note: Each company participating in the development of the ICC Project must provide a response. Multiple responses may be necessary if the ICC Project is being developed in partnership.

Please describe the following:

* Describe how your company business plans and industrial output have been impacted by events since the start of 2020.
* What is the outlook for the company out to 2030? (Your answer should include, but not be limited to, a description of, and rationale for, expected trends in revenue, overheads and profitability, plus a comparison of these to the historical period.)
* Describe how the Project aligns with the company’s overall strategic ambitions in the UK to 2030 and beyond.

Please provide copies of the latest two sets of audited accounts, any accompanying reports, management accounts covering the remainder of the current financial year, and forecast financial accounts covering the remainder of the current financial year and a further ten years for the following companies where applicable:

1. The company or companies operating the Project.
2. The company or companies financing the Project.
3. The company or companies responsible for key investment decisions in relation to this Project.
4. The group parent company or companies (e.g., consolidated accounts) and ultimate parent. For the avoidance of doubt, the group parent should be regarded as the largest group in which the accounts of the companies operating and/or financing the Project are consolidated.

In support of these accounts and reports for the above entities, please include key assumptions underlying financial forecasts.

Please confirm that accounts for the above entities have not received a qualified audit report in any of the previous five years. Highlight any areas of material uncertainty raised by auditors in this period.

Please confirm if the corporate group currently has any financial obligation to HMG and provide details where applicable.

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| References to supporting documentation for Section 4.5.1 A |
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### B - Business plan and financial health – company level (750 words)

Note: Each company participating in the development of an individual project must provide a response. Multiple responses may be necessary where projects are being developed in partnership.

Please see Section 4.5.1 A for further details.

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| References to supporting documentation for Section 4.5.2 B |
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### C - Business plan and financial health – company level (750 words)

Note: Each company participating in the development of an individual project must provide a response. Multiple responses may be necessary where projects are being developed in partnership.

Please see Section 4.5.1 A for further details.

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| References to supporting documentation for Section 4.5.3 C |
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### D - Business plan and financial health – company level (750 words)

Note: Each company participating in the development of an individual project must provide a response. Multiple responses may be necessary where projects are being developed in partnership.

Please see Section 4.5.1 A for further details.

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| References to supporting documentation for Section 4.5.4 D |
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### E - Business plan and financial health – company level (750 words)

Note: Each company participating in the development of an individual project must provide a response. Multiple responses may be necessary where projects are being developed in partnership.

Please see Section 4.5.1 A for further details. If additional entries are needed to cover all companies participating in the development, please insert new sections 4.5.6 F Company etc.

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| References to supporting documentation for Section 4.5.5 E |
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### Financing plan – Project level (1000 words)

Note: In the event of multiple participants in a project, we would expect to see a single overarching financing plan and for it to be clear how each participant fits into that.

Please describe the proposed financing arrangements for progressing the Project. Your response should distinguish between different stages of the Project and explain what is needed to achieve a final investment decision. Within your answer, please provide the timeline, dependencies, key risks and mitigations for the financing process. Please also detail the assumptions underpinning the financing plan including key ratios.

If the Project will be financed by intragroup financing or external debt arrangements that already exist, then please provide a summary of those arrangements. Your summary of the debt arrangements should reference any factors that are material to the financing e.g., headroom, duration, security, and covenants.

If new capital needs to be raised then set out the type and amount of finance anticipated, the level of market engagement that has taken place, feedback received, as well as the activities and timescale needed to secure the financing.

Please summarise the status of key agreements needed to realise the Project and the plans to finalise them e.g., shareholder/sponsor documents, loan and security documents, and Project documents.

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| References to supporting documentation for Section 4.5.6 |
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### T&S Connection (1000 words)

Please describe the connection between the Project and the T&S. This should include:

* The battery limits of the Project, the intended interface point where responsibility for the connection is assumed, custody transfer of the captured CO2 will take place, and the eventual ownership and operational boundaries.
* The intermediate pipework in private land or pipelines in public land to connect to the T&S, major crossings.
* Evidence of engagement with the T&SCo, including agreements in place.

The information to answer this section could come from collaboration with the T&SCo or a high-level route options study by the applicant.

Please describe quality controls and required processing for the CO₂ entering the T&S system and how this meets the T&S specification. Please describe how the engineering solution is aligned to meet the T&S CO2 specification and what measures are in place to prevent off-spec CO2 from entering the T&S network.

Please describe the intended operating regime for the capture plant export to the T&S and any measures planned to manage intermittency or operability of the T&S network. In evidence, please provide a table showing annual mass flow rate of CO2 to the T&S and the expected CO2 percentage (on a mass basis) in the CO2 rich export stream.

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| References to supporting documentation for Section 4.6 |
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This publication is available from: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-december-2023-statement.>

If you need a version of this document in a more accessible format, please email ccust1x@energysecurity.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.

1. For CHP output only, we define an ‘industrial facility’ as a facility or part of a facility that is classified under Standard Industry Classification (SIC) codes 5 to 33 (excluding 24.46) and 38. Capture plants that are solely capturing emissions from the CHP facility are also an eligible end-use of the energy output, where energy output is also provided to industrial facilities. [↑](#footnote-ref-2)
2. Applicants should refer to the ICC Business model updates published in October 2023, December 2022 and July 2022 for more information on risks. [↑](#footnote-ref-3)