



Department for
Business, Energy
& Industrial Strategy

Carbon Capture, Usage and Storage

Dispatchable Power Agreement business model summary and consultation

Closing date: 10 June 2022



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Any enquiries regarding this publication should be sent to us at: powerccusconsultation@beis.gov.uk

Introduction

The summary set out in this document outlines the key design aspects of the Dispatchable Power Agreement (“DPA”) developed following our initial consultation on possible new business models for carbon capture usage and storage (CCUS) held in July 2019¹.

We subsequently developed the DPA design, articulated in updates released between December 2020 and November 2021 following engagement with CCUS expert groups, industry and relevant regulators. The proposed business model summarised in this document incorporates a number of additional positions developed subsequent to the October 2021 update. Alongside this document we have also published for consultation the draft DPA Front End Agreement, draft DPA Contract, and proposed gainshare schedule. These documents should be read in conjunction with the earlier December 2020, May 2021, October 2021 and November 2021 DPA business model updates.

We are now seeking views from stakeholders on the proposed form of the DPA and draft DPA Contract prior to the negotiation / due diligence phase of the Track-1 Phase-2 of the Cluster Sequencing for Carbon Capture Usage and Storage Deployment process². This consultation is being published alongside an update to the Industrial Carbon Capture (ICC) business model, which is designed to incentivise the deployment of carbon capture technology for industrial users in hard to abate industrial sectors.

A number of the proposed DPA contractual provisions have been outlined in the previous business model updates and, where relevant, references to those updates and the additional information and policy rationale they provide have been included. Any new provisions included in the draft DPA Contract, that were not included in the October draft Heads of Terms or articulated in the earlier DPA Business Model updates, are highlighted in this document in grey boxes for ease of reference.

This consultation sets out questions relating to the government’s current proposals for the business model for power CCUS. The proposals, as set out in the document, in whatever form they are expressed, are indicative only and do not constitute an offer by government and do not create a basis for any form of expectation or reliance. They remain subject to further development by the government, and approval by Ministers, in response to this consultation and in consultation with relevant regulators and the devolved administrations, as well as the development and Parliamentary approval of any necessary legislation, and completion of necessary contractual documentation. We reserve the right to review and amend all provisions within the document, for any reason and in particular to ensure that proposals provide value for money (VfM) and are consistent with the current subsidy control regime.

¹ [Business models for carbon capture, usage and storage: Consultation \(July 2019\)](#)

² [Cluster sequencing for carbon capture, usage and storage \(CCUS\) deployment: Phase-2 guidance \(November 2021\)](#)

In the Net Zero Strategy we announced our ambition to begin competitive allocation for power CCUS Projects in the 2020s. We intend to launch a call for evidence later this year to gather views and evidence on how we can best achieve this ambition and support the continued deployment of power CCUS Projects into the 2030s. Please note that any such call for evidence is separate to this consultation, which focuses on the proposed business model to support the initial power CCUS Projects.

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General information

Why we are consulting

This consultation sets out the proposed business model and associated draft DPA Contract developed since the publication of the initial DPA business model update³ in December 2020 which set out the principles of the model design along with provisional Heads of Terms⁴.

The proposed DPA business model and contract follows on from the consultation in 2019 on possible new business models for carbon capture usage and storage and the government response to that consultation⁵ which set out the following key principles to guide the CCUS business model designs:

- Decarbonisation – our policies should incentivise efficient capture, utilisation and storage of CO₂ where production is necessary but should not incentivise production of CO₂ or result in perverse outcomes.
- Sustainable financing – our policies should instil confidence among investors and attract new domestic and international entrants to the market in a sustainable manner and have the potential to become subsidy free.
- Economy – our policies should create value to the UK economy and support high-value jobs.
- Cost reductions – our policies should harness opportunities to drive down cost through innovation, learning by doing and competition as appropriate.
- Market and flexibility – our policies should be market based and minimise distortions in existing markets. They should be compatible with existing market frameworks but retain the flexibility to respond to market conditions and public needs as markets and the economy evolve.
- Value for money – our policies should be cost-efficient, providing value for money for taxpayers and consumers, and provide a risk-adjusted fair return to investors whilst recognising the first of a kind nature of the sector that with industry, we need to develop.
- Fair and reflective costs – the cost of deploying CCUS should be reflective and fair, and not undermine UK industrial competitiveness

In response to consultation feedback regarding power CCUS, the government set out its aims for a power CCUS revenue mechanism that:

- incentivises power CCUS to operate flexibly, dispatching after renewables and nuclear, but ahead of other unabated power plants as part of a flexible electricity system;

³ [Carbon capture, usage and storage: an update on business models \(December 2020\)](#)

⁴ [Dispatchable power agreement \(DPA\) - heads of terms: December 2020 update \(Annex D\)](#)

⁵ [Business models for carbon capture, usage and storage: Response \(September 2019\)](#)

- has the capacity to be competitively allocated;
- provides fair return on investment with appropriate risk allocation and without overcompensation; and
- ensures that the costs are affordable for electricity consumers. Any power CCUS business model would be subject to value for money and affordability assessments. In making such assessments, government will assess the total system costs of power CCUS.

Government expressed that it was minded to develop a business model with a revenue mechanism consisting of a payment for availability of low carbon generating capacity and a variable payment, the combination of which should enable a plant to operate flexibly, providing value to a low carbon electricity system whilst providing sufficient certainty to investors.

This consultation sets out the proposed business model and resulting contract upon which we invite views. We will consider the responses received to determine whether any issues identified necessitate further development to ensure the business model meets policy aims. External advisors may assist with analysis of responses.

Consultation details

Issued: 12 April 2022

Respond by: 10 June 2022 at 23:59 hours.

Enquiries to:

Carbon Capture Usage and Storage Policy Team

Department for Business, Energy and Industrial Strategy

3rd Floor

1 Victoria Street London

SW1H 0ET

Email: powerccusconsultation@beis.gov.uk

Consultation reference: Carbon Capture Usage and Storage – Dispatchable Power Agreement Business Model Summary and Consultation.

Audiences:

The government welcomes responses from anyone with an interest in the policy area. We envisage that the consultation will be of particular interest to those considering the development of new low carbon energy projects in Great Britain, electricity traders and suppliers, businesses operating in the power, renewables and bioenergy sector, and consumer

and environmental groups with an interest in the electricity sector. Should you wish to be involved in any future stakeholder events in connection with the Dispatchable Power Agreement please contact us via email at powerccusconsultation@beis.gov.uk.

Territorial extent:

The DPA is designed to operate in Great Britain only initially. This consultation therefore applies to Great Britain.

Electricity Generation is a devolved policy area in Northern Ireland, with responsibility resting with the Department for the Economy.

How to respond

Your response will be most useful if it is framed in direct response to the questions posed, and with evidence in support wherever possible. Further comments and wider evidence are also welcome. When responding, please state whether you are responding as an individual or representing the views of an organisation.

We encourage respondents to make use of the online e-consultation wherever possible when submitting responses as this is the Government's preferred method of receiving responses. However, responses in writing or via email will also be accepted. Should you wish to submit your main response via the e-consultation platform and provide supporting information via hard copy or email, please be clear that this is part of the same consultation response.

Respond online at: <https://beisgovuk.citizenspace.com/clean-electricity/ccus-dpa-business-model>

or

Email to: powerccusconsultation@beis.gov.uk

Write to:

Carbon Capture Usage and Storage Policy Team

Department for Business, Energy and Industrial Strategy

3rd Floor

1 Victoria Street

London

SW1H 0ET

A response form is available on the GOV.UK consultation page:

<https://www.gov.uk/government/consultations/carbon-capture-usage-and-storage-ccus-dispatchable-power-agreement-business-model>

When responding, please state whether you are responding as an individual or representing the views of an organisation.

Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential please tell us, but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable data protection laws. See our [privacy policy](#). External advisors may assist with analysis of responses.

We will summarise all responses and publish this summary on [GOV.UK](#). The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

Quality assurance

This consultation has been carried out in accordance with the government's [consultation principles](#).

If you have any complaints about the way this consultation has been conducted, please email: beis.bru@beis.gov.uk.

Disclaimer

The proposed terms, in this consultation and the associated draft DPA (includes DPA Front End Agreement, DPA Terms and Conditions, and DPA Gain Share Schedule) will be reviewed in light of this consultation but also remain subject to further development by the government in consultation with relevant regulators and the devolved administrations as well as subject to Parliamentary approval of any necessary legislative amendments and to ensure consistency with subsidy control principles. The proposals, as set out in this consultation document, do not therefore constitute an offer by government and do not create a basis for any form of expectation or reliance.

The draft DPA does not constitute definitive drafting of the DPA's terms. A number of the provisions and terms which require particular consideration and development have been square bracketed (with footnotes) in the DPA. BEIS reserves the right to review and amend these square bracketed provisions, and all other provisions set out in the DPA.

The draft DPA does not indicate any willingness or agreement on the part of the BEIS to enter into, or arrange the entry into, the DPA. The DPA does not constitute an offer and is not capable of acceptance.

The proposals

Introduction

What is the DPA

This consultation sets out our current proposed positions but these positions, regardless of how they are expressed, are not final and will remain subject to review and amendment, if required, including as a result of this consultation process. The capitalised terms used in this document are as defined in the draft DPA Contract (attached to this consultation) unless otherwise defined in this document.

The DPA is the proposed contractual framework for power CCUS, it is based on the Contracts for Difference (CfD) for Allocation Round 4 (CfD AR4) standard terms and conditions but adapted to enable natural gas fired power CCUS facilities (“Project”) to play a mid-merit role in meeting electricity demand, displacing unabated thermal generation plants. The DPA proposes an Availability Payment, linked to facility performance, to incentivise the availability of low carbon, non-weather dependant dispatchable generation capacity. The Availability Payment will be calculated and paid regardless of whether a facility is dispatching, and so will not incentivise facilities to displace lower cost and lower carbon sources of generation such as renewables and nuclear.

To ensure that a power CCUS Facility generates electricity ahead of higher carbon alternatives, we propose that a Variable Payment will account for the additional cost of generation for a power CCUS Facility compared to an unabated Reference Plant, which is intended to be a CCGT with the highest defined thermal efficiency, assessed on a lower heating value (LHV)⁶ basis operating on the GB electricity system.

Phase 2 allocation

The DPA has been developed as part of the wider CCUS Cluster Sequencing Process, and Projects were able to make submissions for a DPA in Phase-2⁷ of this process. The application window for Phase-2 closed on 21 January 2022.

Projects that are selected following successful evaluation in Phase-2 of the CCUS Cluster Sequencing Process will be invited to participate in the due diligence and negotiations stage, and may ultimately receive a DPA subject to final government compliance checks and terms set out in section 7.9 of the Cluster sequencing Phase 2 guidance⁸.

⁶ See 'Definition of Reference Plant' section of this document.

⁷ [Cluster sequencing for carbon capture, usage and storage \(CCUS\) deployment: Phase-2 guidance \(November 2021\)](#)

⁸ See document in footnote 7.

Energy Act 2013 and eligibility

It is intended that the Secretary of State will use the powers in Section 10 of the Energy Act 2013 to direct the DPA Counterparty to offer initial DPA contracts to generators that are selected through the Cluster Sequencing process. To enter into a DPA, a power CCUS Facility must meet the definition of an Eligible Generator which will be specified in the Contracts for Difference (Definition of Eligible Generator) Regulations 2014. In July 2021 we consulted on amendments to the Contracts for Difference (Definition of Eligible Generator) Regulations 2014 and Contracts for Difference (Allocation) Regulations 2014 to facilitate power CCUS⁹ including an amendment to the definition of an Eligible Generator. The response to that consultation was published on 29 March 2022.

Negotiation and consultation

We set out in the Phase-2 guidance¹⁰ document that after the evaluation of submissions and shortlisting, in line with government business case approvals processes, government envisages that there will be a period of negotiation/due diligence in the CCUS Cluster Sequencing Process, when shortlisted Projects will engage with the Department on a variety of technical and commercial issues. The exact timetable for negotiations is to be confirmed, with the first projects expected to be awarded contracts from mid-2023.

The majority of the conditions in the DPA Contract are expected to be applied without modification and are not intended to be negotiable on a per-project basis. This is intended to provide a fair, transparent foundation for negotiations that is grounded in the successful precedents of the CfD models. These fixed components of the contract will, subject to the outcome of this consultation and any further necessary modifications to reflect the feedback from it, reflect the fundamental tenets of the business model that have been described in this and previous publications and have been discussed extensively with stakeholders through expert groups and workshops during the development of the business model.

We anticipate that the Project-specific terms included in the Front End Agreement (defined below) will be subject to discussion in this phase. HMG retains the right to draw additional aspects of the business model into negotiations on a discretionary basis.

The method by which initial recipients of support are to be identified is set out in the document with title Cluster Sequencing for Carbon Capture, Usage and Storage (CCUS) Deployment: Phase-2 Guidance.

The terms offered during negotiations will consider the wider impacts of final project selection on the risk profile and resilience of the Track-1 Cluster Plans. This includes taking into account the subsequent plans for the clusters and other additional emitters and ensuring the cost of extending the T&S network to each project remains satisfactory. Any decision to award support at any stage of this process will only be made subject to government being comfortable with:

⁹ [Carbon capture usage and storage: amendments to Contracts for Difference regulations \(July 2021\)](#)

¹⁰ [Cluster sequencing for carbon capture, usage and storage \(CCUS\) deployment: Phase-2 guidance \(November 2021\)](#)

the application of subsidy control requirements, any balance sheet implications, the status of any relevant statutory consents and that the project represents value for money for the consumer and the taxpayer and is deliverable. It should also be noted that any decision to award support may be contingent on wider factors including finalisation of agreements with relevant T&S networks as well as the development and Parliamentary approval of any necessary legislation.

Form of the DPA

The DPA business model is split into:

- (a) the “Front End Agreement”, which is the document between the Generator and the DPA Counterparty, which includes the bespoke values and definitions agreed prior to the Agreement Date, such as the description of the generation facility;
 - (b) the “DPA Contract”, which is a set of standard terms, which will be common for all DPA recipients; and
 - (c) the “Direct Agreement”, which is a further agreement which can be entered into by the DPA Counterparty, the Generator, and a Lender/Security Trustee. This sets out the rights of the Lender/Security Trustee in relation to the DPA and the form of this Direct Agreement is found in Annex 5 of the DPA Contract.
 - (d) the gain share schedule, which outlines the provisions of the proposed gain share mechanism which may be applied to the DPA.
- together known as (“the DPA”).

We have published drafts of these alongside this consultation. We have included at Annex 2 of the DPA Contract a proposed Testing Schedule which sets out the anticipated requirements for the Commissioning Tests and Annual NDC Test.

The summary of the terms of the DPA Contract in this document should be read in conjunction with the full form draft DPA Contract published alongside this document. If there is a conflict between the summary of terms in this document and the draft DPA Contract, the draft DPA Contract shall prevail.

Parties

The DPA Contract is a private law, commercial contract between the Generator and the DPA Counterparty, which will be the Low Carbon Contracts Company Ltd.

Term length

Initial Projects, regardless of whether they are new build, repowered or retrofit, will have flexibility to choose an appropriate term length that is between 10 and 15 years¹¹. The intention

¹¹ Policy on term length is set out in more detail on page 8 of the [Dispatchable power agreement \(DPA\) business model: October 2021 update](#)

is to provide flexibility across a range of different approaches to implementing power CCUS whilst also facilitating competitive pricing and term lengths that are proportionate to the remaining operational life of each respective Project.

Commissioning

There are requirements which must be fulfilled by the Generator at various stages of the Facility's commissioning process. These are the Initial Conditions Precedent (ICPs), Milestone Requirement, Operational Conditions Precedent (OCPs) and the Longstop Date Commissioning Requirements.

Initial Conditions Precedent

The ICPs are the first milestone of the DPA. These are specified legal / regulatory requirements and conditions which the Generator must fulfil no later than twenty Business Days following signature of the DPA. The ICPs that must be delivered by a Generator are specified in Part A (Initial Conditions Precedent), Annex 1 (Conditions Precedent) of the draft DPA Contract. These notably include key Project documents, and corporate approvals.

If any of the ICPs are not either fulfilled by the Generator or waived by the DPA Counterparty within twenty (20) Business Days of the Agreement Date, then the DPA Counterparty will have the right but not obligation to issue a Pre-Start Date Termination Notice to the Generator further detail in respect of which is set out below in the section 'Pre-Start Date Termination'.

Milestone Requirement

Following the satisfaction (or waiver) of the ICPs, the Milestone Requirement is the next contractual milestone which must be fulfilled by the Generator. The Milestone Requirement in the DPA is designed to demonstrate commitment to and progression of the Project. The Generator will be required to demonstrate by the Milestone Delivery Date (see Milestone Delivery Date below) either:

- An actual spend of 10% of Total Project Pre-Commissioning Costs; or
- The satisfaction of specified Project Commitments.

More information about how each of the specific Milestone Requirements are satisfied is set out below.

Total Project Pre-Commissioning Costs

This Milestone Requirement is satisfied by the Generator demonstrating that it, and its direct shareholders, have in aggregate spent ten percent (10%) or more of the Total Project Pre-Commissioning Costs. This figure will be determined on a bespoke basis using the data about costs supplied during the Track-1 Phase-2 evaluation and the due diligence and negotiation phase. Evidence may include invoices, payment receipts and other supporting information necessary to demonstrate those costs have been incurred in relation to the Project.

Project Commitments

This Milestone Requirement is satisfied by the Generator providing evidence demonstrating that it meets the General and Technology Specific Project Commitments (“Project Commitments”), including demonstrating it has entered into commercially binding arrangements to acquire necessary Material Equipment to deliver the Project by the start of the Target Commissioning Window (TCW). Valid agreements may include engineering, procurement and construction agreements (EPC contracts, direct supply agreements or framework agreements with binding purchase orders). The Project Commitments are specified in Part A and B of Annex 3 (Project Commitments) of the Front End Agreement. The rationale for specifying Project Commitments is to deter speculative or underdeveloped Projects from applying for a DPA.

Milestone Delivery Date

The Initial Milestone Delivery Date shall be eighteen months after the Agreement Date but this period may be extended in some specific circumstances such as Force Majeure, electricity/gas network connection delays and T&S commissioning delays. Details of these circumstances are set out in the definition of Milestone Delivery Date in the DPA Contract.

If the Generator does not satisfy the Milestone Requirement by the Milestone Delivery Date, then the DPA Counterparty will have the right but not obligation to terminate the DPA Contract, further detail in respect of which is set out below in the section ‘Pre-Start Date Termination’.

Operational Conditions Precedent and Start Date

For the Start Date of the DPA to occur and for DPA payments to commence, a Generator must demonstrate to the DPA Counterparty that it has satisfied the Operational Conditions Precedent (OCPs). If the last day of the TCW¹² passes before the Generator has met the OCPs, the DPA Contract term will still commence from the last day of the TCW but payments will not commence until the OCPs are satisfied (“Start Date”) and so the DPA term will be eroded. This is to incentivise timely delivery of a Project and ensure that budget remains committed only to Projects that demonstrate sufficient progress.

The details of the OCP requirements are set out in full Part B (Operational Conditions Precedent), Annex 1 (Conditions Precedent) of the draft DPA Contract and include a requirement for a Generator to demonstrate in Commissioning Tests that the Facility meets thresholds in relation to its CO₂ Capture Rate, Net Dependable Capacity (NDC), Plant Net Efficiency and Start Up Times as set out in Table 1 (Summary of OCP thresholds) below.

¹² More detail about the TCW is explained on page 8 of the [Dispatchable power agreement \(DPA\) business model: May 2021 update](#)

Criteria	Minimum OCP Commissioning Requirements
NDC	Evidence that an NDC of not less than eighty five per cent. (85%) of the Generators Net Dependable Capacity Estimate has been Commissioned.
Start Up Times	Evidence that Start Up Times of not more than the Required Start Up Times have been Commissioned while the CO ₂ Capture Rate during the relevant overall test periods are equal to or greater than the OCP Required CO ₂ Capture Rate. Required Start Up Times means one hundred and twenty five per cent. (125%) of the Generator's Start Up Time Estimates.
CO ₂ Capture Rate	Evidence that the OCP Required Capture Rate has been Commissioned, meaning a Test Achieved CO ₂ Capture Rate which is equal to or greater than the higher of: (i) ten (10) percentage points lower than the Generator's CO ₂ Capture Rate Estimate; and (ii) eighty per cent. (80%).
Plant Net Efficiency	Evidence that a Plant Net Efficiency of not less than ninety per cent (90%) of the Generator's Plant Net Efficiency Estimate has been Commissioned.

Table 1: Summary of OCP thresholds.

Noting that the purpose of the DPA is to incentivise low carbon electricity generation, there is also an OCP requirement to demonstrate that the Facility has connected to a T&S Network, (i.e. which will ensure the transfer of captured CO₂ to permanent storage, a 'T&S Connection Confirmation CP'). This can be waived in some circumstances, further detail in respect of which is set out below in the section 'T&S Commissioning Delay Relief'.

Target Commissioning Window

The Initial Target Commissioning Window shall be a twelve (12) month period which will be set out in the Front-End Agreement and determined in the negotiation and due diligence phase prior to the Agreement Date. This period may be extended in some specific circumstances which are set out in detail in the definition of Target Commissioning Window in the draft DPA Contract (and which include Force Majeure, electricity/gas network connection delays and T&S commissioning delays).

Longstop Date¹³

The Longstop Period is the twelve (12) month period following the last day of the Target Commissioning Window, but this period may be extended in some specific circumstances which are set out in detail in the definition of Longstop Date in the draft DPA Contract (and which include Force Majeure, electricity/gas network connection delays and T&S

¹³ More detail on the Longstop Date is set out on page 9 of the [Dispatchable power agreement \(DPA\) business model: May 2021 update](#).

commissioning delays). The Longstop Date is the last day of the Longstop Period (as extended by those circumstances).

If any of the OCPs are not fulfilled by the Generator or waived by the DPA Counterparty prior to the Longstop Date, the DPA Counterparty will have the right but not obligation to terminate the DPA, further detail in respect of which is set out below in the section 'Pre-Start Date Termination'. The purpose of the Longstop Date is to prevent consumer subsidies being committed to Projects which secure DPAs but which never fully commission and also to incentivise developers to accurately assess capacity and performance of the Projects they intend to construct and commission.

Longstop Date Requirements¹⁴

In addition to the OCP requirements set out above, there is a further requirement for a Generator to demonstrate by the Longstop Date that the Facility meets the Minimum Longstop Date Commissioning Requirements as set out in Table 2 (Summary of the Minimum Longstop Date Commissioning Requirements) below. This is to ensure the Generator can capture carbon at the rate and deliver flexible low carbon generation capacity that it has proposed on its application for subsidy and therefore these steps ensure it is being properly offered.

Criteria	Minimum Longstop Date Commissioning Requirements
NDC	NDC demonstrated at the Longstop Date Performance Tests is equal to or greater than the Required Net Dependable Capacity, which is ninety per cent. (90%) of the Generator's Net Dependable Capacity Estimate.
Start Up Times	The Start Up Times demonstrated at the Longstop Date Performance Tests are equal to or lower than the Required Start Up Times at the same time as the CO ₂ Capture Rate during the relevant overall test periods is equal to or greater than the Required CO ₂ Capture Rate (discussed below). Required Start Up Times means one hundred and twenty-five per cent. (125%) of the Generator's Start Up Time Estimates.
CO ₂ Capture Rate	The Test Achieved CO ₂ Capture Rate demonstrated at the Longstop Date Performance Tests is equal to or greater than the Required CO ₂ Capture Rate. The Required CO ₂ Capture Rate means a Test Achieved CO ₂ Capture Rate which is equal to or greater than the higher of: (i) five (5) percentage points lower than the Generator's CO ₂ Capture Rate Estimate; and (ii) eighty five per cent, (85%).

¹⁴ More detail on the Longstop Date Commissioning Requirements is set out in the [Dispatchable power agreement \(DPA\) business model: October 2021 update](#).

Plant Net Efficiency	The Plant Net Efficiency demonstrated at the Longstop Date Performance Tests is equal to or greater than the Required Plant Net Efficiency. The Required Plant Net Efficiency is that not less than ninety five per cent. (95%) of the Generator's Plant Net Efficiency Estimate has been Commissioned.
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Table 2: Summary of the Minimum Longstop Date Commissioning Requirements.

If any of these Minimum Longstop Date Commissioning Requirements are not either fulfilled by the Generator or waived by the DPA Counterparty by the Longstop Date, the DPA Counterparty will have the right but not obligation to terminate the DPA, further detail in respect of which is set out below in the section 'Termination for failing to meet the Minimum Longstop Date Commissioning Requirements'.

Summary of OCP and Longstop Date Thresholds

The following table summarises the respective thresholds for both the OCP Performance Tests and the Longstop Date Performance Tests, noting that failing to meet the thresholds could lead to the termination of the DPA Contract¹⁵.

Criteria	OCP Performance Test	Longstop Date Performance Test
NDC	85% of the Net Dependable Capacity Estimate	90% of the Net Dependable Capacity Estimate
Start Up Times	125% of the Start Up Time Estimates	125% of the Start Up Time Estimates
CO ₂ Capture Rate	10 percentage points lower than the CO ₂ Capture Rate Estimate (with a floor of 80%)	5 percentage points lower than the CO ₂ Capture Rate Estimate
Plant Net Efficiency	90% of the Plant Net Efficiency Estimate	95% of the Plant Net Efficiency Estimate

Table 3: Summary of OCP and LSD Performance test thresholds.

Testing Requirements

The Performance Tests must include a combination of Full Load Tests and Start Up/Shut Down Tests. These tests, which must be carried out in accordance with specified Test Performance Standards, will be required to demonstrate that the Minimum Commissioning Requirements have been satisfied. This is necessary to ensure a consistent minimum standard

¹⁵ Termination provisions are summarised in the section 'Termination and Consequences of Termination' below.

is applied that ensures we have confidence in the information being provided upon which subsidy is offered.

We have further developed the Facility testing requirements following the proposed outline provided in the October 2021 DPA update. The proposed testing regime requirements for the Performance Tests are now set out in the Testing Requirements in annex 2 of the draft DPA Contract.

T&S Commissioning Delay Relief

To mitigate against the risks that arise if the T&S Network is not completed to schedule, the DPA offers limited relief for T&S Commissioning Delay Events which are outside of the Generator's control. The Generator may, if it considers that a T&S Commissioning Delay Event has occurred and is continuing, request either:

- A day for day delay to one or more of the Milestone Delivery Date, the Target Commissioning Window and/or the Longstop Date for any delay the T&S Commissioning Delay Event causes the Project; or
- That the DPA Counterparty waives the T&S Connection Confirmation CP if the Generator T&S Connection Works have been fully completed.

Where the Generator and the DPA Counterparty agree that the Generator T&S Connection Works have been fully completed, such that the Generator would otherwise be ready to connect to the T&S Network if the T&S Network was available, the Generator's obligation to fulfil the T&S Connection Confirmation CP will be waived so that if all other OCPs have been fulfilled, the Generator can achieve its Start Date and begin to receive Availability Payments.

If the T&S Connection Confirmation CP is waived, the Generator will receive no further extensions to its TCW or Longstop Date in relation to any T&S Commissioning Delay Event.

The Generator must notify the DPA Counterparty promptly upon becoming aware the T&S Network is or will be available (the 'T&S Network Availability Date'), and must then use reasonable endeavours to fulfil the T&S Connection Confirmation Requirement as soon as reasonably practicable, and in any event before the date that falls 3 months after the T&S Network Availability Date.

However, if the Generator fails to fulfil the T&S Connection Confirmation Requirement by that date, notwithstanding the availability of the T&S Network, the DPA Counterparty will have the right but not obligation to terminate the DPA (a 'Termination for failing to satisfy the T&S Connection Confirmation CP'). Any relief for T&S Commissioning Delays is subject to the process for termination for 'Failure to Remedy a T&S Prolonged Unavailability Event'. Further details are set out below in the section 'Termination'.

Payment Mechanism

As outlined above, the DPA will consist of two payments: (i); an Availability Payment for low carbon electricity generation capacity; and (ii) a Variable Payment to adjust the position of the Facility in the merit order relative to unabated Plants when demand cannot be met by low marginal cost technologies such as renewables or nuclear.

Availability Payment

The Availability Payment (AP) is designed to incentivise the availability of low carbon electricity generation and is based on the Availability Payment Rate (APR_i , expressed in £) which will be discussed in the negotiation / due diligence phase and included in the Front End Agreement. The Availability Payment will be reduced proportionally to reflect any reduction to the Availability of Capture or the Availability of Generation, which represent the Facility's capture rate and any loss of availability caused by generation outages.

The Availability Payment is calculated for each AP Billing Period with the following formula:

$$AP = \sum (AG_i \times AC_i \times NDC \times APR_i) + TSCF + TSRF$$

Term	Definition	Source
AP	Availability Payment in the AP Billing Period (£)	Calculated
AG_i	Availability of Generation applicable to Settlement Unit i (%)	Calculated
AC_i	Availability of Capture applicable to Settlement Unit i (%)	Calculated
NDC	Net Dependable Capacity (MW)	Measured through the OCP Performance Test or (where relevant) by the Longstop Performance Test and then through the Annual NDC Tests
APR_i	Availability Payment Rate per Settlement Unit i (£/MW/Settlement Unit)	Agreed in DPA and fully indexed to CPI.

Term	Definition	Source
<i>TSCF</i>	T&S Capacity Fee in the AP Billing Period (£)	Calculated ¹⁶
<i>TSRF</i>	T&S Residual Fee being the portion of any T&S residual charge relevant to the size of user's connection (£) in AP billing period.	Calculated ¹⁷

Table 4: Definition of terms in the Availability Payment rate formula.

Availability of Generation

The Availability of Generation is the net generating capacity of the Facility during an AP Settlement Unit, calculated in accordance with the following formula for each such unit:

- Where no Generation Outage Event (includes any derating event) occurs during an AP Settlement Unit:

$$AG_i = 1$$

- Where a Generation Outage Relief Event occurs during an AP Settlement Unit:

$$AG_i = 1$$

- Where a Generation Outage Event either starts, continues or ends during the relevant AP Settlement unit:

$$AG_i = AG_{OE_n} = 1 - \frac{\sum \left((NAC_{OE_n} - NAC_j) \times \Delta T_j \right)}{NAC_{OE_n} \times \Delta T_{Settlement Units}}$$

Term	Definition
AG_{OE_n}	Availability of Generation during Generation Outage Event n
NAC_j	Net Available Capacity during time segment j (MW)
ΔT_j	Duration of time segment j of the Generation Outage Event (hours)
NAC_{OE_n}	Net Available Capacity immediately preceding the Generation Outage Event n (MW)

¹⁶ The calculation of the T&S Capacity Fee for the AP Billing Period is set out in the DPA Contract.

¹⁷ The calculation of the T&S Residual Fee for the AP Billing Period is set out in the DPA Contract.

Term	Definition
$\Delta T_{Settlement\ Units}$	Generation Outage Event Duration (hours)

Table 5: Definition of terms in the Calculation of Availability of Generation formula.

For each term above the information will be derived from data declared on UK REMIT. If UK REMIT is unavailable at any time then this information shall be provided promptly to the DPA Counterparty directly as would have been provided had UK REMIT been available.

More information about the treatment of outages and the declarations system in the DPA Contract can be found below in the section 'Declarations'.

Availability of Capture

The Availability of Capture is determined for each AP Settlement Unit based on the following principles:

- For an AP Settlement Unit where a Capture Outage Relief Event occurs (a Capture Plant Outage Event that occurs as a direct result of a T&S Outage Event not attributable to the Generator):

$$AC_i = DCR_i$$

- For an AP Settlement Unit where Metered Electricity Output is equal to or less than zero (a Non-Operational Period):

$$AC_i = DCR_i$$

- For an AP Settlement Unit where Metered Electricity Output is greater than zero and no Capture Outage Relief Event occurs (an Operational Period):

$$AC_i = ACR_{ph}$$

Term	Definition	Source
ACR_{ph}	Achieved CO ₂ Capture Rate in the AP Billing Period (%)	Calculated (see further detail below)
DCR_i	Deemed CO ₂ Capture Rate (%) for AP Settlement Unit (i)	Calculated (see further detail below)

Table 6: Definition of terms in the Calculation of Availability of Capture formula.

Deemed CO₂ Capture Rate

The Deemed CO₂ Capture Rate for each AP Settlement Unit shall be the lower of the Deemed Rate (which is a rolling average of the Achieved CO₂ Capture Rate) and any Declared CO₂ Capture Rate. More detail is set out in relation to the Declared CO₂ Capture Rate below in the section 'Declarations'.

Deemed Rate

The Deemed Rate is a measure of historic performance of the Facility, and is determined in one of three ways:

- where there has not yet been a single AP Billing Period with an Achieved CO₂ Capture Rate (for example in the first month of operation) the Deemed Rate shall be the value demonstrated at the relevant Performance Test (i.e. the OCP Performance Tests or the Longstop Date Performance Tests);
- where there have been between one (1) and twelve (12) AP Billing Periods with an Achieved CO₂ Capture Rate, the Deemed Rate shall be the Average Achieved CO₂ Capture Rate during a Deemed Calculation Period which is the period from the Start Date to the end of the most recent AP Billing Period as calculated below; or
- where there have been twelve (12) or more AP Billing Periods with an Achieved CO₂ Capture Rate, the Deemed Rate shall be the 'Average Achieved CO₂ Capture Rate' during a Deemed Calculation Period which is the period comprising the most recent twelve (12) AP Billing Periods where the Achieved CO₂ Capture Rate has been used to determine the Availability of Capture for at least one AP Settlement Unit within each AP Billing Period.

The Average Achieved CO₂ Capture Rate over a Deemed Calculation Period will be calculated by considering the sum of all CO₂ generated during the relevant period and the sum of all CO₂ sequestered into the T&S Network during the period, with all CO₂ generated and CO₂ sequestered during any T&S Outage excluded from the calculation. This is calculated with the following formula:

$$AACR_{ph} = \frac{CO2_{exp} - CO2_{exp_{CORE}}}{CO2_{gen} - CO2_{gen_{CORE}}}$$

Term	Definition	Source
$AACR_{ph}$	Average Achieved CO ₂ Capture Rate (%)	Calculated
$CO2_{exp}$	Metered CO ₂ Output in a Deemed Calculation Period (tCO ₂)	Metered on entry to T&S network at the CO ₂ Delivery Points
$CO2_{expCORE}$	Metered CO ₂ Output where a Capture Outage Relief Event occurs in a Deemed Calculation Period (tCO ₂)	Metered on entry to T&S network at the CO ₂ Delivery Points
$CO2_{gen}$	Calculated CO ₂ Generated in a Deemed Calculation Period (tCO ₂)	Calculated from Total Metered Fuel Consumption and the Fuel Composition using JEP ¹⁸ methodology
$CO2_{genCORE}$	Calculated CO ₂ Generated where a Capture Outage Relief Event occurs in a Deemed Calculation Period (tCO ₂)	Calculated from Total Metered Fuel Consumption and the Fuel Composition using JEP methodology

Table 7: Definition of terms in the Calculation of Average Achieved CO₂ Capture Rate formula.

Achieved CO₂ Capture Rate

The Achieved CO₂ Capture Rate is calculated for each AP Billing Period by considering the emissions during the AP Billing Period and the CO₂ sequestered into the T&S Network during the AP Billing Period, with all emissions and CO₂ sequestered during any T&S Outage excluded from the calculation. This is calculated with the following formula:

$$ACR_{ph} = \frac{CO2_{exp} - CO2_{expCORE}}{CO2_{gen} - CO2_{genCORE}}$$

¹⁸ Joint Environmental Programme.

Term	Definition	Source
ACR_{ph}	Achieved CO ₂ Capture Rate (%)	Calculated
$CO2_{exp}$	AP Metered CO ₂ Output (over an AP Billing Period) (tCO ₂)	Metered on entry to T&S network at the CO ₂ Delivery Points
$CO2_{exp_{CORE}}$	AP Metered CO ₂ Output with Capture Outage Relief Event (tCO ₂)	Metered on entry to T&S network at the CO ₂ Delivery Points
$CO2_{gen}$	AP Calculated CO ₂ Generated (over an AP Billing Period) (tCO ₂)	Calculated from Total Metered Fuel Consumption and the Fuel Composition using JEP19 methodology
$CO2_{gen_{CORE}}$	AP Calculated CO ₂ Generated with Capture Outage Relief Event (over an AP Billing Period) (tCO ₂)	Calculated from Total Metered Fuel Consumption and the Fuel Composition using JEP methodology

Table 8: Definition of terms in the Calculation of Achieved CO₂ Capture Rate formula.

Net Dependable Capacity

The Net Dependable Capacity (NDC) means the net generating capacity (expressed in MW) of the Facility on a continuous and reliable basis available at the Electricity Delivery Point(s), at Reference Site Conditions. The NDC used in the Availability Payment calculation shall be the lower of: (i) the net generating capacity demonstrated at the most recent relevant Test; and (ii) the Net Dependable Capacity Estimate.

Net Dependable Capacity Estimate

The Net Dependable Capacity Estimate, which acts as a cap on the NDC used in the Availability Payment, will initially be the Initial Net Dependable Capacity Estimate agreed in the negotiations and due diligence phase prior to the Agreement Date and defined in the Front End Agreement of the DPA Contract. The NDC cap ensures that there is proportionate budgetary control in the allocation and application of DPAs.

A Generator may reduce its Net Dependable Capacity Estimate by up to 10% prior to the Milestone Delivery Date ('a permitted reduction') by issuing a NDCE Adjustment Notice. A Generator may only make one Permitted Reduction, and any NDCE Adjustment Notice shall

¹⁹ Joint Environmental Programme

be irrevocable. The Generator may not subsequently increase the Net Dependable Capacity Estimate.

Annual NDC Test

There will be a requirement for a Generator to perform an Annual NDC Test demonstrating the NDC of the Facility. Such test will also need to be performed in accordance with the testing requirements detailed in the Testing Requirements annex of the draft DPA Contract. We are proposing that this test must be performed within the period between 1 June to 1 September but can be performed on any date that suits the Generator within that window. Each year the revised NDC shall then take effect on 1 October. The revised NDC will not exceed the Initial NDC estimate upon which budgetary control is based. Providing a window within which the test must be performed provides a degree of flexibility to Generators while preventing a scenario where there is an incentive to undertake planned Facility maintenance outages in winter months where market demand is foreseeably greatest.

Transport and Storage fees in the Availability Payment

The January 2022 Transport and Storage (T&S) Business Model update²⁰ confirmed that T&S fees will have three elements comprising:

1. A Volumetric Fee based on the tonnes of CO₂ injected into the T&S network to cover T&S variable operational costs,
2. A Capacity Fee based on the users booked network capacity to cover T&S fixed capital cost, and
3. A Residual Fee to cover the remainder of user's share of the T&S allowed revenue which will be charged based on £/unit of size of user's connection and will be subject to a cap.

The DPA will cover the Capacity and Residual fees that are associated with operating the Facility through the TSCF and TSRF terms in the Availability Payment (as set out above). The Residual fee will be included in the Availability Payment because it is based on the size of a user's connection, which is not directly tied to the amount of CO₂ the Project injects into the T&S Network or the amount of electricity that the plant exports to the grid and so it would not be appropriate to include as a term in the Variable Payment. The Volumetric fee will form part of the Variable Payment calculation.

Settlement Units and Billing Period for the Availability Payment

Each Settlement Unit for the AP will be a thirty-minute period aligning with the wider electricity market. The AP Billing Period will be one calendar month.

²⁰ [Transport and storage business model: January 2022 update](#)

Suspension of payments

In the October 2021 update we set out that the DPA Counterparty may suspend Payments under the DPA where the Generator:

- Fails to achieve minimum CO₂ capture rate of 50% for a prolonged period (i.e. any 3 whole consecutive or non-consecutive AP Billing periods within a rolling 6-month period). A Generator must demonstrate an Achieved and Declared CO₂ Capture Rate Average of no less than 85% for 3 whole consecutive AP Billing Periods to lift the suspension. Where a Generator fails to lift the suspension and the DPA Counterparty terminates the DPA then all suspended payments shall be withheld (although the value of the suspended payments will be set off against the Termination Payment that the Generator is required to make to the DPA Counterparty).

The DPA Counterparty may also suspend payments where the Generator:

- Is in breach of the metering schematic obligations (i.e. the requirement to notify the DPA Counterparty of material changes to metering equipment);
- Fails to provide the DPA Counterparty with metering access rights (i.e. the requirement to grant necessary rights of access to the Facility);
- Fails to provide Declaration Capacity Data;
- Fails to allow the DPA Counterparty to exercise its Declaration Access Right;
- Fails to undertake an Annual NDC Test;
- Fails to provide the DPA Counterparty with Annual NDC Test Access Rights;
- Fails to comply with a SCADA Systems Obligations;
- Fails to comply with the Compliance of Technology undertaking;
- Fails to comply with a T&S Prolonged Unavailability Procedure Obligation.

In all cases, the payments that can be suspended must relate to the period of breach and the DPA Counterparty must notify the Generator of the intention to suspend payments before such payment suspension takes effect. In all cases, a Generator has the opportunity to rectify the breach, following which payments will resume (without interest being payable by the DPA Counterparty).

Variable Payment

The Variable Payment (VP) will be calculated by comparing the difference in gas costs, carbon costs, other variable costs and T&S costs incurred by the Facility, and those incurred by the Reference Plant which should represent the unabated combustion plant with the highest lower heating value efficiency on the GB electricity system. This is achieved by calculating the higher gas costs, lower CO₂ emissions costs, T&S Volumetric Fees and Other Extra Variable Costs incurred by the Facility relative to the Reference Plant, to ensure that the Facility's overall short run marginal costs are less than those incurred by the unabated Reference Plant.

The Variable Payment is calculated for each VP Billing Period in accordance with the following formulae:

$$VP = \sum (VPR \times MWh)$$

$$VPR = GC + CC + OC + TSVP_{CR}$$

Term	Definition	Source
<i>VP</i>	Variable Payment in the VP Billing Period (£)	Calculated
<i>VPR</i>	Variable Payment Rate for the VP Billing Period (£/MWh)	Calculated
<i>MWh</i>	Metered Day Electricity Output for the VP Billing Period (MWh)	Adjusted for line loss, metered at entry to electricity transmission / distribution network, and reported by a BSC company (or agent) to the DPA Counterparty.
<i>GC</i>	Gas Cost Differential due to CCUS (£/MWh)	Calculated ²¹
<i>CC</i>	CO ₂ Cost Differential due to CCUS (£/MWh)	Calculated ²²
<i>OC</i>	Other Extra Variable Costs due to CCUS (£/MWh)	Agreed in DPA and indexed to inflation
<i>TSVP_{CR}</i>	T&S Volumetric Payment Charging Rate (£/MWh)	Calculated ²³

Table 9: Definition of terms in the Variable Payment Formula

²¹ The calculation of the Gas Cost Differential is specified on page 20 of the [Dispatchable power agreement \(DPA\) - detailed explanation and examples: December 2020 update \(Annex C\)](#)

²² Calculation of CO₂ Cost Differential specified on page 20 of the [Dispatchable power agreement \(DPA\) - detailed explanation and examples: December 2020 update \(Annex C\)](#)

²³ Calculation of T&S Volumetric Payment Charging Rate is set out in the DPA Contract.

Gas Cost Differential and Gas Reference Price

The Gas Cost Differential is based on the thermal efficiency of the Facility vs the Reference Plant. The Gas Reference Price will be the settlement price for day ahead natural gas contracts for delivery at the UK National Balancing Point. The Gas Cost Differential in respect of the Facility (expressed in £/MWh) in VP Settlement Unit (i) will be calculated in accordance with the following formula:

$$GC_i = \frac{GP_i}{100} \times (GU_{CCUS} - GU_{Ref})$$

Term	Definition
GC_i	Gas Cost Differential (£/MWh) in VP Settlement Unit (i)
GP_i	Gas Price (pence/therm) in VP Settlement Unit (i)
GU_{CCUS}	Facility Gas Consumption (therms/MWh)
GU_{Ref}	Reference Plant Gas Consumption (therms/MWh)

Table 10: Definition of terms in the gas cost differential.

The Gas Reference Price may be reviewed and subsequently amended pursuant to the Gas Reference Price Review procedure detailed in Annex 6 of the draft DPA Contract. The review procedure broadly follows that for BMRP and IMRP in CfD AR4.

CO₂ Cost Differential and Carbon Price

A carbon price indicator is used in the calculation of the CO₂ Cost Differential between the power CCUS plant and unabated Reference Plant. The CO₂ Cost Differential in respect of the Facility (expressed in £/MWh) for a VP Settlement Unit (i), will be calculated in accordance with the following formula:

$$CC_i = CP_i \times (CO2E_{CCUS} - CO2E_{Ref})$$

Term	Definition
CC_i	CO ₂ Cost Differential in VP Settlement Unit (i) (£/MWh)
CP_i	Carbon Price in VP Settlement Unit (i) (£/t CO ₂)

Term	Definition
CO_2E_{CCUS}	Facility CO ₂ Emissions in VP Settlement Unit (i) (tCO ₂ /MWh)
CO_2E_{Ref}	Reference Plant CO ₂ Emissions in VP Settlement Unit (i) (tCO ₂ /MWh)

Table 11: Definition of terms in CO₂ cost differential.

The Carbon Price used in the CO₂ Cost Differential calculation will be equal to the sum of the prevailing: (i) Carbon Support Price; and (ii) Carbon Market Reference Price, for such VP Settlement Unit.

The Carbon Support Price is the price (expressed in £/tCO₂) as published by HM Treasury pursuant to Finance Act 2000, Schedule 6 (Climate Change Levy); and

The Carbon Market Reference Price is the price (expressed in £/tCO₂) for a UKA Futures December Contract as reflected in a UKA Futures Index (ICE Futures Europe Index)

The Carbon Market Reference Price may be reviewed and subsequently amended pursuant to the Carbon Market Reference Price Review procedure detailed in Annex 7 of the draft DPA Contract. The review procedure broadly follows that for BMRP and IMRP in CfD AR4.

The Other Extra Variable Costs component of the Variable Payment Rate are those costs, other than gas costs, carbon emissions savings, and T&S fees incurred from operating the Facility compared to the Reference Plant. The Generator will need to demonstrate that the costs it proposes to include as Other Extra Variable Costs – which will be subject to negotiation and agreement with BEIS prior to the Agreement Date – would not have been incurred by the Reference Plant and are specific to operation of the carbon capture plant only, for example, consumables such as cooling water for the carbon capture plant.

Definition of Reference Plant

The proposed Initial Reference Plant shall be a CCGT with a defined thermal efficiency of 62.4% on a lower heat value basis (LHV). The same Reference Plant shall be applied to all initial DPA Generators including retrofit and new build Projects. This is to ensure that DPA Facilities are incentivised to dispatch ahead of unabated thermal power generation facilities.

The DPA Counterparty will be required to review and update the Reference Plant definition for all DPA Generators no more frequently than every 5 years commencing no later than 2027. This may result in updates to the Base Performance Assumptions and subsequently the Variable Payment calculation. It is expected that the Base Performance Assumptions of the Reference Plant can only improve (i.e. in a way which leads to the calculation of a higher short run marginal cost differential) via the Reference Plant Review Procedure.

The Reference Plant Review Procedure will be undertaken as follows:

- The DPA Counterparty shall procure an Energy Consultant (i.e. an internationally recognised, leading energy consultant experienced in advising clients in the UK electricity generation sector including in relation to the design, engineering, procurement and construction of Plants) to conduct a Reference Plant Criteria Review every 5 years. If the Energy Consultant determines that changes to the Reference Plant are not required then a Reference Plant Criteria Review will be conducted by the DPA Counterparty in each subsequent year until such time as the Energy Consultant determines that an amendment to the Reference Plant is required.
- The DPA Counterparty shall propose the identity of the Energy Consultant to all DPA Generators at least 180 days prior to the Reference Plant Criteria Review commencement date.
- Generators can object to the DPA Counterparty's proposed Energy Consultant on limited grounds (e.g. where the proposed Energy Consultant does not meet specified 'Energy Consultant Appointment Criteria').
- The Energy Consultant shall commence their review on 01 August and provide a report to the DPA Counterparty no later than 01 November.
- The DPA Counterparty shall notify all Generators of the outcome of the relevant Reference Plant Criteria Review no later than 1 December.
- Any change to the Reference Plant and consequent changes to the Base Performance Assumptions utilised to calculate the Variable Payment rate will take effect from 01 January in the year immediately following the Relevant Reference Plant Criteria Review Commencement Date.
- Further detail of this procedure can be found at Annex 8 (Reference Plant Review) of the draft DPA Contract.

Settlement and Billing for the VP

The VP Settlement Unit and VP Billing Period will be set at one day from 00:00 through to 23:59. The DPA Counterparty will use the BSC interim settlement run to produce a Billing Statement within 7 working days with payment made within 28 calendar days of the relevant settlement unit day.

The gas day runs from 06:00 to 06:00 therefore this will necessitate applying two day-ahead gas prices to each VP Settlement Unit calculation – the first running from 00:00 to 05:59 and the second running from 06:00 to 23:59.

The VP will not be paid for those full half hour periods in which there is a Full Capture Outage Event or a Full T&S Outage Event.

Representations and Warranties

Metering Undertakings

Contractual provisions relating to metering undertakings are set out in Part 7 section 21 of the draft DPA Contract. Electricity and gas metering undertakings follow established industry practice and in the case of electricity metering reflects the provisions in the CfD AR4 contract. The DPA Contract introduces the additional requirement for CO₂ metering.

Accurate metering is important for determining the Achieved CO₂ Capture Rate, CO₂ quality and quantity of CO₂ captured by the Facility and delivered to the T&S Network. Such factors are important for ensuring that accurate payments between parties across the CCUS chain are made, including payments made by the DPA Counterparty to each Generator under DPA Contracts.

With effect from the Start Date, the Generator will be required to install, configure, register, operate and maintain CO₂ meters in accordance with the requirements of the CO₂ metering specification. CO₂ metering standards are subject to further development – it is expected that such standards will be consistent with the requirements of direct monitoring requirements under the UK ETS regime but this will be further clarified prior to the entry into the first DPA Contracts.

Generator Declaration Obligations

Notification of Generation Declaration Capacity Data (including Generation Outage Events)

The Generator shall submit to the DPA Counterparty electricity generation capacity data declarations and details of Generation Outage Events, including;

- Net Available Capacity immediately preceding a Generation Outage Event;
- Net Available Capacity during each time segment of a Generation Outage Event;
- Generation Outage Event durations; and
- The reason for any Generation Outage Event (including, if applicable, a Generation Outage Relief Event).

In all cases, unless UK REMIT is unavailable, all relevant submissions shall be in accordance with UK REMIT²⁴ (Regulation on wholesale energy markets integrity and transparency) requirements.

If UK REMIT is unavailable at any time the Generator must promptly provide the Generation Declaration Capacity Data to the DPA Counterparty directly.

²⁴ Following the UK's departure from the EU, REMIT is retained under national legislation by effect of the European Union (Withdrawal) Act 2018 and amended by the Electricity and Gas (Market Integrity and Transparency) (Amendment) (EU Exit) Regulations 2019 (SI 2019/534)

Notification of Full Capture and Full T&S Outages

The Generator shall submit to the DPA Counterparty details of the duration, start time and end time of any Full Capture Outage Event and/or Full T&S Outage Event to the nearest minute. A Generator must declare a Full Capture Outage Event and/or a Full T&S Outage Event if:

- the Metered Electricity Output is greater than zero (0); and
- the Metered CO₂ Output is equal to or less than zero (0)

for 2 or more consecutive AP Settlement Units.

Notification of Declared CO₂ Capture Rate

The Generator shall submit the Declared CO₂ Capture Rate in respect of all AP Settlement Units where: (i) the Metered Electricity Output is equal to or less than zero (0); and/or (ii) a T&S Outage Event occurs, in a form and content satisfactory to the DPA Counterparty (acting reasonably) and with the frequency that the Declared CO₂ Capture Rate is required to be provided in accordance with a methodology and framework to be determined.

If any Declaration Capacity Data (i.e. relating to Generation Declaration Capacity Data, Full Capture or T&S Outages and/or Declared CO₂ Capture Rates) that a Generator provides is misleading in any respect, or the Generator's failure to provide such Declaration Capacity Data is misleading in any respect, then the DPA Counterparty will have the right (but not the obligation) to terminate the DPA Contract.

Minimum CO₂ Capture Rate Undertaking

If a Generator fails to achieve a Minimum CO₂ Capture Rate Average, that being a Achieved and Declared CO₂ Capture Rate Average of seventy percent ($\geq 70\%$), for three (3) consecutive AP Billing Periods (months) or three (3) non-consecutive AP billing periods within six (6) rolling AP Billing Periods (months), then the DPA Counterparty may give a Capture Rate Breach Notice to the Generator. Such notice will include a Capture Rate Breach Deadline which is eighteen (18) months after the date of the Capture Rate Breach Notice upon which the DPA Counterparty may terminate the DPA unless the Minimum CO₂ Capture Rate breach has been rectified.

Within twenty (20) business days of receiving a Capture Rate Breach Notice the Generator shall submit to the DPA Counterparty a Capture Rate Breach Response Notice where it sets out how it will rectify the failure to achieve the Minimum CO₂ Capture Rate, by achieving an Achieved and Declared CO₂ Capture Rate Average greater than eighty five percent (85%) for three (3) consecutive AP Billing Periods before the 18-month Capture Rate Breach Deadline occurs.

If rectification may take longer than 18 months the Generator will have the option to provide the DPA Counterparty with a Capture Rate Breach Rectification Plan. The Generator must inform the DPA Counterparty of its intent to submit this plan within twenty (20) business days of receiving a Capture Rate Breach Notice and then submit its Rectification Plan within sixty (60)

Business Days thereafter. The DPA Counterparty must then confirm to the Generator whether it approves the Rectification Plan or requires further information to assess the plan.

Where a Rectification Plan is approved by the DPA Counterparty, the Generator must start to implement the Rectification Plan within sixty (60) business days after the Rectification Plan approval date to remedy the Minimum CO₂ Capture Rate Breach.

Where the Generator fails to remedy the Minimum CO₂ Capture Rate Breach then a Capture Rate Termination Event will be deemed to have occurred. See 'Termination and Consequences of Termination' section of this document for further information.

Please see the discussion above on page 29 in relation to the DPA Counterparty's right to suspend payments under the DPA Contract if the Generator's Achieved and Declared CO₂ Capture Rate Average is less than fifty per cent (50%) for either three (3) consecutive AP Billing Periods or three (3) non-consecutive AP Billing Periods within six (6) rolling AP Billing Periods.

Information Undertaking

We have adapted the Information Provision requirement of the CfD AR4 to reflect the mechanics of the DPA. Notably, Generators will need to provide estimates of Net Dependable Capacity, Plant Net Efficiency and, Start-Up Times on the Agreement Date and estimates of the Achieved CO₂ Capture Rate and Availability of Generation for the first AP Billing Period after the Start Date.

The Generator must also provide the DPA Counterparty with reports and supporting information detailing the progress of the Pre-Operation activities at the Facility from the Agreement Date until the Start Date.

In addition, the Generator must ensure that: (i) a SCADA System is installed, and maintained in accordance with the Reasonable and Prudent Standard; and (ii) the DPA Counterparty has full access to all Information from the SCADA System at the Facility (including live operational data) by a data communications link or other applicable data-link as agreed between the Parties (such agreement not to be unreasonably withheld or delayed by the Generator).

Subsidy Control

As in the CfD AR4, the Generator will be required to make undertakings to the DPA Counterparty regarding the provision of information and declaration of no cumulation of subsidy, state aid and /or union funding other than that provided through the DPA Contract. This is to ensure there is no overcompensation and to facilitate consistency with the subsidy control principles. If a Generator provides misleading information or fails to comply with its contractual undertakings regarding receipt of subsidies, its payments under the DPA Contract may be suspended. Further detail on these provisions is set out in condition 24 of the draft DPA Contract.

Supply Chains

Economic benefits and supply chain reporting

In November 2021 we provided an update on the DPA and ICC business models²⁵ clarifying our intention to include a requirement for participants to report on the economic benefits and CCUS supply chains associated with the development of their CCS capture plant projects. The purpose of this is to provide BEIS with key economic, technical and commercial data around the supply chain and the value drivers that underpin it.

Here we provide an update on the proposed submission process and fees associated with non-compliance. Ahead of the start of Phase-2 negotiations, we plan to provide a template for the report, which would be completed at each of the reporting milestones, and guidance on what will need to be reported.

Report submission

The first report will have to be submitted to the DPA Counterparty by the deadline of 18 months after contract signature aligning with the Milestone Delivery Date (if there is a delay to the Milestone Delivery Date, the first report would also be delayed), the second report by the third anniversary of the Project Start Date, then third and final report by its seventh anniversary of the Start Date. Reports will be accepted within the preceding 6 months of the dates noted above; for example, the first report must be submitted between 12 and 18 months after contract signature. All reports should be accompanied by a Directors' Certificate to provide the DPA Counterparty with comfort that the information submitted is accurate and complete.

The DPA Counterparty must respond to the Generator within 20 Business Days of the deadline to confirm receipt of a satisfactory report or to notify the Generator of its non-compliance. A non-compliance notice will be issued if the report is not submitted before the relevant reporting deadline. Additionally, a non-compliance notice can be issued if the submitted report is not valid. For example, this could include if any fields in the template are blank, are completed with information that is not relevant to the question asked, or does not adhere to restrictions on the type of data that can be entered/number of words. BEIS will consider further the exact criteria for this.

The DPA Counterparty will pass this information to BEIS, who may look to publish some extracts from these reports in order to share information with wider industry and to support implementation of a CCUS supply chain. Before doing so, any information deemed by the Department to be commercially sensitive would be removed.

Nominal fees for non-compliance

Our current proposal is that, if the DPA Counterparty has issued a non-compliance notice, the Generator will be required to pay the nominal fees set out in table 12:

²⁵ [November 2021: Updates on the industrial carbon capture and dispatchable power agreement business models](#)

Months of non-compliance	Maximum monthly fee
1	£1,000
2	£1,000
3	£1,000
4	£2,500
5 or more	£5,000

Table 12: Summary of fees for non-compliance.

The DPA Counterparty would have the right to set-off any fees due to it against any payments due to the Generator under DPA Contract.

Any fees due in respect of the first report will not need to be paid until the Start Date has occurred and payments under the DPA Contract have commenced. If the Start Date never occurs, such that payments under the DPA Contract never commence, and a pre-start date termination occurs, then the Generator would not pay any fees accrued.

We set out below, some worked examples of non-compliance fees that could apply under the DPA Contract:

- After 3 months of non-compliance, the Generator will have incurred fees totalling £3,000 (which, assuming that payments had not been suspended for any other reason, would be deducted from payments due to the Generator assuming that the Start Date had occurred).
- After 6 months of non-compliance, the Generator will have incurred fees totalling £15,500 (which, assuming that payments had not been suspended for any other reason, would be deducted from payments due to the Generator assuming that the Start Date had occurred).

For the non-compliance procedure to end, and for the Generator to stop incurring the non-compliance fees, the Generator would need to submit a valid report to the DPA Counterparty (see above).

Qualifying Change in Law (QCiL)

The DPA Contract contains qualifying change in law provisions, following the approach taken in the CfD AR4, in order to provide fair and proportionate protection to Generators in respect of three categories of change in law:

- 1 Discriminatory Change in Law. This is a change in law which specifically applies to A) the particular Project, B) the particular Facility or C) the particular Generator.
- 2 Specific Change in Law. This is a change in law that specifically applies to generating facilities deploying CO₂ capture technology (or their holding companies) forming part of such generating facilities and not to other generating facilities.
- 3 Other change in law. This is a change in law which, whilst not specifically applying to Generators deploying CO₂ capture technology, has an undue and discriminatory effect on the costs incurred by them compared to one of four comparator groups defined below:
 - Comparator group A: All other Generators operating generating facilities deploying CO₂ capture technology.
 - Comparator Group B: All Generators operating generation facilities with the same or similar (combustion process) as the facility but not deploying CO₂ Capture Technology
 - Comparator Group C: all Generators operating generating facilities deploying one or more material generation technologies which is any generating technology accounting for at least 1% of installed generation capacity in the UK; or
 - Comparator Group D: all Generators operating generation facilities deploying CO₂ capture technology other than the relevant Generators CO₂ capture technology.

QCiL protection is not available to Generators in respect of a Foreseeable Change in Law²⁶.

QCiL Compensation

QCiL compensation will be based on the general principle that the Generator impacted by the QCiL should be no better and no worse off than before the QCiL. The provision can have effect both ways whereby the Generator will be entitled to compensation if the QCiL results in net costs for the Generator, and the DPA Counterparty will be entitled to compensation if the QCiL results in net savings for the Generator. The main categories of compensation will be payable to/from a Generator relate to QCiLs that:

- Permanently prevent the construction of a Facility;
- Affect a Generator's capex;

²⁶ The definition of Foreseeable Change in Law was set out in annex B of the [Dispatchable power agreement \(DPA\) business model: May 2021 update](#).

- Affect a Generator's opex;
- Affects a Generator's Availability of Generation, Availability of Capture and/or Net Dependable Capacity;
- Affect's a Generator's ability to generate electricity; or
- Permanently prevents a Facility from operating.

Where a QCiL occurs after the Agreement Date and before the Start Date which will permanently prevent the Generator, acting to a Reasonable and Prudent Standard, from Commissioning the Facility, because some aspect of the QCiL in question renders the construction, conversion, testing, completion or commissioning which is left to be done illegal, the following costs would be payable to the Generator (subject to any netting of QCiL Construction Event Savings): (i) development and pre-development costs in respect of the Facility; (ii) decommissioning costs for any portion of the Facility already constructed; (iii) any break costs which the Generator will incur by virtue of a contract which it holds with a third party or its financiers; and (iv) costs which are wholly attributable to the construction, installation, testing, completion or commissioning of the Facility. The compensation will be paid either as a lump sum or as a series of staged payment, at the DPA Counterparty's discretion.

Where a QCiL results in net capex costs or savings, the Generator or the DPA Counterparty will receive compensation in respect of such capex (subject to certain qualifications that are set out in the draft DPA Contract). Compensation may be paid as a lump sum, staged payments or daily payments.

Where a QCiL results in net opex costs or savings, the Generator or DPA Counterparty will receive compensation in respect of such opex. Such compensation will be payable as staged payments or daily payments.

Where a QCiL reduces or increases a Facility's Availability of Generation, Availability of Capture and/or Net Dependable Capacity with consequential impacts on the quantum of payments made under the DPA: i) the Generator will be compensated for lost Availability Payments and Variable Payments on a retrospective basis and ii) these figures will be adjusted on a forward-looking basis for the purposes of calculating future Availability Payments under the DPA Contract.

A period of reduced or increased electricity generation by the Facility as a consequence of a QCiL will result in a "QCiL Adjusted Revenues Payment" being made to the Generator or DPA Counterparty. Compensation will be payable retrospectively as either a lump sum, staged payments or daily payments based on an assessment of the revenue that the Generator would have generated (including wholesale electricity market revenue, balancing system services revenue and ancillary services revenue) but for the QCiL, with input from an internationally recognised, leading energy market consultancy firm.

Compensation will be available for a Generator where a QCiL permanently prevents the Generator from operating the Facility as a result of i) the Facility's operation becoming illegal, ii) a CiL which the Generator can demonstrate imposes a requirement that permanently prevents the Facility from operating or constitutes the refusal or failure to give approval to a

request for consent to re-start the operation of the Facility for a period which is likely to exceed twenty four (24) months. Payments in these circumstances will be made to the Generator by the DPA Counterparty as a lump sum payment or staged payments. Such compensation (minus any savings resulting from such event) will comprise an amount equal to: i) all irrecoverable and unavoidable out-of-pocket costs (including tax liabilities and break costs) which have been or will be incurred by the Generator in respect of the Facility arising directly from the relevant QCiL or CiL (but excluding certain costs), plus revenue that the Generator would have received (including wholesale electricity market revenue, balancing system services revenue and ancillary services revenue) from electricity that the Facility would have generated but for the occurrence of the QCiL from the date of the QCiL until the expiry of the Term, with input from an internationally recognised, leading energy market consultancy firm.

Cap on QCiL Payment

Where a QCiL affects a Facility's: capex; opex; Availability of Generation, Availability of Capture or Net Dependable Capacity or Metered Day Electricity Output; or any combination thereof, the total QCiL compensation due to the Generator will be capped by reference to:

- the QCiL Construction Event Payment that would have been payable to the Generator had a QCiL Construction Event occurred (pre-Start Date); or
- the QCiL Operations Cessation Event Payment that would have been payable to the Generator had a QCiL Operations Cessation Event occurred (post-Start Date).

Where the DPA Counterparty is required to pay QCiL compensation to a Generator which is equivalent to either the QCiL Construction Event Payment or QCiL Operations Cessation Event Payment, the DPA Counterparty may elect to terminate the DPA with no obligation to pay the Generator any additional compensation.

Termination and Consequences of Termination

It is standard for a contract of this type to include termination events/rights. This section includes further information on the minded to DPA Contract termination provisions. The DPA Counterparty shall have the right, but not the obligation, to terminate a DPA Contract where:

Pre-start date termination

- The Generator fails to satisfy the ICPs;
- At any time prior to the Start Date, any Directors' Certificate provided to satisfy a Milestone Requirement is not true, complete or accurate in any material respect or is misleading as at the date it is provided;
- A Termination Event occurs and is continuing (further detail on Termination Events is set out in the section 'Default termination' below)

- The Generator fails to satisfy a Milestone Requirement before Milestone Delivery Date; or
- Longstop Date: The Generator fails to satisfy the OCPs by the Longstop Date.

Other points to note:

- Both the Milestone Delivery Date and the Longstop Date will be adjusted day-for-day for any delays which occur due to Force Majeure and/or for any delays that are due to the additional circumstances that are described in the 'Milestone Requirement' section above (e.g. electricity/gas network connection delays). These positions largely mirror those within the CfD AR4, with certain capture technology-specific adaptations being made for the DPA.
- As confirmed in the December 2020²⁷ update, a Pre-Start Date termination will be on a no-liability basis.

Termination for failing to satisfy the Minimum Longstop Date Commissioning Requirements

In addition to termination for a failure to meet the OCPs by the Longstop Date, a Generator will also have to demonstrate that the Facility meets the Minimum Longstop Date Commissioning Requirements by such date (as detailed in Table 2 (Summary of Minimum Longstop Date Commissioning Requirements)).

If a Generator fails to meet these requirements by the Longstop Date, then the DPA Counterparty will have the right (but not obligation) to terminate the DPA. Such a termination event will be on a no-liability basis.

Termination for failing to satisfy the T&S Connection Confirmation CP

If the DPA Counterparty has temporarily waived the T&S Connection Confirmation CP and the T&S Connection Confirmation Requirement is not fulfilled by the Generator on or before the T&S Connection Confirmation Deadline, (the date falling three (3) months after the T&S Network Availability Date), the DPA Counterparty will have the right, but not the obligation, to terminate the DPA Contract. Termination in these circumstances will also be on a no-liability basis given it is the Generator's responsibility to construct and commission its capture plant and connection to the T&S network appropriately.

Termination for Prolonged Force Majeure

A Prolonged Force Majeure event is where the Generator's Project is significantly delayed due to a continuing, unresolved Force Majeure.

The prolonged Force Majeure termination right will arise where a continuing, unresolved Force Majeure event, that first occurs between the date of signing the DPA Contract and the date the

²⁷ [Dispatchable power agreement \(DPA\) - detailed explanation and examples: December 2020 update \(Annex C\)](#)

Generator satisfies the Milestone Requirement, prevents or delays the development, construction, completion, testing or commissioning of the Facility for at least eighteen (18) months. Where such an event occurs, the DPA Counterparty will have the right (but not obligation) to terminate the DPA while the Prolonged FM event still ongoing.

As set out in the October 2021 business model update we have shortened the window in which the Prolonged FM Event must first occur so that such window ends on the date the Generator satisfies the Milestone Requirement, rather than at the end of the Target Commissioning Window (as initially proposed in the December 2020 Update).

The Prolonged FM Event termination will be on a no-liability basis given the non-fault nature of the event.

Termination for T&S Prolonged Unavailability Event

We set out in previous updates that, where an event which is not the fault of the Generator prevents the Facility from accessing the T&S Network for a continuous period (with such period to be determined) we were considering whether to give the DPA Counterparty the right to terminate the DPA Contract.

This termination right is intended to account for circumstances where an issue with a T&S Network causes that T&S Network to be taken offline permanently or prevents a Project from exporting its CO₂ to the T&S Network for a prolonged period of time. The right seeks to ensure that the subsidy only encourages low carbon electricity generation whilst allowing an appropriate period for the fault in the relevant T&S Network to be rectified, or, if that's not possible, for an Alternative T&S Network Solution Plan to be put in place.

Where a T&S Prolonged Unavailability Event occurs, such as:

- A Full T&S Outage Event which lasts for at least [6 months]²⁸;
- A T&S Commissioning Delay which lasts for at least [6 months]; or
- A T&S Cessation Event, which means the occurrence of any one of the following:
 - a notice of discontinuation is issued by the Secretary of State to the T&S Operator pursuant to the discontinuation agreement entered into between the T&S Operator and the Secretary of State;
 - the licence of the T&S Operator to operate the T&S Network is (i) revoked; and (ii) is not transferred to a substitute T&S Operator, such that the T&S Network ceases to operate or the Generator is no longer able to connect to the T&S Network; or
 - a determination is made by the relevant Competent Authority that the Generator's connection to the T&S network is no longer viable;

²⁸ BEIS are still considering the appropriate timelines so we have marked these timescales with square brackets to signal they could change.

the DPA Counterparty can give a T&S Prolonged Unavailability Event Notice to the Generator which shall specify the date on and from which the DPA Counterparty has a right (but not obligation) to terminate the DPA Contract, which is the T&S Prolonged Unavailability Remediation Deadline ([30 months] after the T&S Prolonged Unavailability Event Notice). Information about compensation for this termination event is set out below.

We have set out a process that must be followed if a T&S Prolonged Unavailability Event has occurred and the DPA Counterparty has notified the Generator of the same (as described above) and summarise it below. We recognise that there are multiple interdependencies that could impact decision-making in the future and a clear framework for sharing information across interdependent organisations will be set out to enable effective and coordinated decision-making.

Within [6 months] of the T&S Prolonged Unavailability Event Notice, the Generator must provide the DPA Counterparty with a T&S Prolonged Unavailability Response Notice, along with supporting information and evidence²⁹, specifying that:

- (i) The T&S Prolonged Unavailability Event is no longer continuing;
- (ii) The Generator considers that the T&S Prolonged Unavailability Event will be remedied by the T&S Prolonged Unavailability Remediation Deadline ([30 months] after the T&S Prolonged Unavailability Event Notice), and attaching supporting evidence (we anticipate this will include evidence from the relevant T&S Operator) to demonstrate this; or
- (iii) The Generator intends to provide the DPA Counterparty with an Alternative T&S Network Solution Plan by [18 months] after the T&S Prolonged Unavailability Event Notice; or
- (iv) The Generator considers that the T&S Prolonged Unavailability Event will not be remedied by the T&S Prolonged Unavailability Remediation Deadline and that the Generator cannot provide a feasible Alternative T&S Network Solution Plan for one or more of the following reasons (each a 'No Alternative T&S Solution Reason'):
 - It is not technically feasible for the Generator, acting in accordance with a Reasonable and Prudent Standard, to connect the Facility to an alternative CO₂ Delivery Point and T&S Network or permanent storage site;
 - The implementation of an Alternative T&S Network Solution Plan would be illegal;
 - It is not economically feasible for the Generator, acting in accordance with a Reasonable and Prudent Standard, to connect the Facility to an alternative CO₂ Delivery Point and T&S Network or permanent storage of CO₂ from the Facility;

²⁹ If, when the Generator delivers a T&S Prolonged Unavailability Response Notice, the DPA Counterparty determines that the Generator has not delivered satisfactory accompanying evidence, then the Generator must provide a T&S Prolonged Unavailability Further Response Notice to the DPA Counterparty, accompanied by sufficient supporting evidence.

- There are no feasible alternative T&S Networks which can permanently store the CO₂ from the Facility; and/or
- Any other reason which will or is reasonably likely to justify the decision not to provide an Alternative T&S Network Solution Plan.

If the Generator becomes aware of something which will, or is likely to, significantly affect the accuracy of any T&S Prolonged Unavailability Response Notice or T&S Prolonged Unavailability Further Response Notice, including any accompanying Supporting Information, then the Generator must provide a notice to the DPA Counterparty.

It is our minded-to position that if a Generator fails to comply with a T&S Prolonged Unavailability Procedure Obligation, such as:

- a Generator fails to give a T&S Prolonged Unavailability Response Notice by [6 months] after the T&S Prolonged Unavailability Event Notice;
- if applicable, a Generator fails to give a T&S Prolonged Unavailability Further Response Notice by the Alternative T&S Network Solution Plan Deadline;
- a Generator gives a notice pursuant to (iii) above specifying that it intends to provide the DPA Counterparty with an Alternative T&S Network Solution Plan, and then does not provide such a plan by [18 months] after the T&S Prolonged Unavailability Event Notice;
- if the DPA Counterparty asks for additional supporting information via an Alternative T&S Network Review Notice and a Generator fails to provide this within [twenty Business Days]; or
- if a Generator fails to give an amended draft Alternative T&S Network Solution Plan which includes the amendments specified by the DPA Counterparty in an Alternative T&S Network Review Notice within [twenty Business Days];

then the DPA Counterparty may, after notifying the Generator, elect to suspend payments of any amounts to the Generator. If the Generator subsequently cures by complying with the relevant T&S Prolonged Unavailability Procedure Obligation then the DPA Counterparty will pay any amounts which were suspended, without interest, to the Generator.

If a Generator submits a T&S Prolonged Unavailability Response Notice pursuant to (iv) above specifying that it considers that the T&S Prolonged Unavailability Event will not be remedied by the T&S Prolonged Unavailability Remediation Deadline and that it cannot provide a feasible Alternative T&S Network Solution Plan because of a No Alternative T&S Solution Reason, along with sufficient supporting information to verify this, then it is our minded to position that the DPA Counterparty will have the right (but not obligation) to give a notice specifying the date on which termination of the DPA Contract is designated to take effect. This right would ensure that DPA Contracts do not continue when there is no realistic prospect of the Generator resuming capture and permanent storage of CO₂.

In addition, if the T&S Prolonged Unavailability Event is continuing after the T&S Prolonged Unavailability Remediation Deadline, no Alternative T&S Network Solution Plan has been agreed, or an Alternative T&S Network Solution Plan has been agreed but the Generator has

failed to implement such a plan in accordance with its terms (in order to remedy the T&S Prolonged Unavailability Event) the DPA Counterparty will have the right (but not obligation) to issue a notice specifying the date on which termination of the DPA Contract is designated to take effect.

Alternative T&S Network Solution Plan

We recognise that when faced by a T&S Prolonged Unavailability Event it may be possible for a Generator to find a practical alternate route to permanent storage for its captured CO₂, and that if the Generator can do so, it should not face termination.

A Generator can give a T&S Prolonged Unavailability Response Notice specifying, pursuant to (iii) above, that it will provide an 'Alternative T&S Network Solution Plan' within [18 months] of the T&S Prolonged Unavailability Event Notice.

Such a plan must set out the required milestones and actions in order to connect the Generator to an alternative CO₂ Delivery Point and T&S Network [or alternative permanent storage] (either directly by pipeline, or indirectly by other means of transportation) in order to remedy a T&S Prolonged Unavailability Event.

Upon receipt of an Alternative T&S Network Solution Plan, the DPA Counterparty will have [6 months] to assess this plan to consider the deliverability of the plan, while also assessing the impact the plan would have on the Project's original T&S network as well as information from the T&S Operator and the relevant authorities on the progress towards returning the T&S network the Generator is currently using to service.

The DPA Counterparty will confirm whether it (i) approves the plan (without amendment), (ii) requires more information, (iii) requires amendments to or (iv) in its sole and absolute discretion, rejects the plan (along with such supporting information it considers necessary to evidence the reasons for such rejection). If the response is (ii), (iii) or (iv), the Emitter can then, within [twenty Business Days], submit additional supporting information or an amended draft plan and the review process will be repeated.

If the DPA Counterparty approves such a plan, and the Generator implements or is implementing the Approved Alternative T&S Network Solution Plan in accordance with its terms (which includes meeting specified milestones and carrying out certain actions) in order to remedy the T&S Prolonged Unavailability Event, then the DPA Contract will not be terminated.

Compensation

In the event a Termination for T&S Prolonged Unavailability Event occurs, we propose that a Generator will receive compensation for irrecoverable and unavoidable out-of-pocket costs which have been, will be or are reasonably likely to be incurred in respect of the Project arising directly from a T&S Prolonged Unavailability Event occurring and comprised of:

- development and pre-development costs (e.g. surveys and EIAs);
- decommissioning costs;

- financing and contractual break costs (but excluding any other finance costs); and
- construction costs.

in all cases incurred in relation to the DPA for the Facility, with such compensation reduced to reflect i) any savings made by the Generator in relation to the T&S unavailability event, ii) the residual economic value of the Facility (including any market revenues that can be generated from continued unabated operation) and iii) the repayment or amortisation of the relevant construction costs (where the DPA terminates after the Start Date).

Termination for Minimum CO₂ Capture Rate Breach

From the Start Date, if a Generator's "Achieved and Declared CO₂ Capture Rate Average" (which shall be the average of their Achieved CO₂ Capture Rate weighted by the number of AP Settlement Units to which the Achieved CO₂ Capture Rate has been applied, and their Declared CO₂ Capture Rates, weighted by the number of AP Settlement Units to which the Deemed CO₂ Capture Rates have been applied) falls below 70% in any three (3) whole AP Billing Periods (whether consecutive or not) within a rolling six (6) month period, then the DPA Counterparty may issue a notice of termination to the Generator.

Following the notice of termination, the DPA Counterparty may terminate the DPA after 18 months have passed from the date of that notice unless:

- the Generator demonstrates an Achieved and Declared CO₂ Capture Rate Average of no less than 85% for three (3) whole, consecutive AP Billing Periods within such eighteen 18-month period; or
- the Generator implements a rectification plan that has been agreed with the DPA Counterparty, and which is expected to enable the Generator to demonstrate an Achieved and Declared CO₂ Capture Rate Average of no less than eighty five (85%) for three (3) whole, consecutive AP Billing Periods (although this may take longer than eighteen (18) months following the notice of termination);

in which case the notice of termination will be revoked.

Further details of the capture rate breach, response and resolution or termination are set out in the draft DPA Contract and in the October 21 Business Model Update³⁰.

The Generator will be relieved from liability and deemed to not be in breach of the Minimum CO₂ Capture Rate obligation if the failure is directly attributable to a Force Majeure event.

Generator Default Termination Events

If, at any time on or after the Start Date, a Termination Event has occurred and is continuing, the DPA Counterparty will have the right to terminate the DPA Contract.

The Termination Events are:

³⁰ [Dispatchable power agreement \(DPA\) business model: October 2021 update](#)

- Generator insolvency;
- Non-payment which is not rectified within a specified cure period;
- Breach of key obligations (including breaches of undertakings relating to the ownership of the Facility and fraud);
- Metering: A Technical Compliance Termination Event or a Metering Access Termination Event;
- Minimum CO₂ Capture Rate: A Capture Rate Termination Event (as discussed in Termination for Minimum CO₂ Capture Rate Breach above); and
- Declarations: A Misleading Declaration Termination Event or a Declaration Access Termination Event (see Generator Declaration Obligations above).

The DPA Counterparty will have the right but not the obligation to terminate the DPA Contract if these events occur. In these circumstances, the Generator will be obliged to pay the DPA Counterparty a termination fee (discussed below).

Termination fees

The termination fees payable by a defaulting Generator will be calculated as follows:

Default Termination Payment = Net Dependable Capacity Estimate × Termination Fee Rate

A Termination Fee Rate of £35,000 per megawatt of the Facility's Net Dependable Capacity Estimate (as adjusted by a Permitted Reduction) will apply for all Termination events. We set out the rationale for the Termination Payment calculation in the October 2021 update³¹.

A Generator will not be liable to pay more than one Default Termination Payment. In the event that more than one termination event applies, a single fee of £35,000/MW will apply.

If the DPA Counterparty terminates the DPA for a prolonged Minimum CO₂ Capture Rate Breach, the Default Termination Payment due to the DPA Counterparty will be reduced by any unpaid amounts which the DPA Counterparty has suspended.

The Termination Fees rate will be indexed to CPI, in line with the rest of the DPA Contract where CPI indexing applies. The application of indexation to CPI is to ensure that over the course of the DPA Contract term the Termination Fees Rate remains proportionate to the total subsidy received by a Generator and remains a deterrent throughout the course of the term.

Lenders Direct Agreement

The DPA includes a form of a lender Direct Agreement, (LDA) which follows the CfD AR4 template. This is a tripartite agreement entered into by a lender or a security trustee on its behalf, the Generator and the DPA Counterparty.

³¹ [Dispatchable power agreement \(DPA\) business model: October 2021 update](#)

In order to be eligible to enter into a LDA with the DPA Counterparty, a party must be a Lender or Affected Person (or an agent or Security Trustee of the Affected Person) with the benefit of first ranking security overall, or substantially all, of the assets of the Generator, and in whose favour the Generator assigns its rights under the DPA Contract. The LDA safeguards the interests of the Lender, Affected Person or Security Trustee (as the case may be), and entitles them to step in to prevent (or at least delay) the contract from being terminated should the Generator fail to meet their contractual obligations.

The definition of “DPA Counterparty Enforcement Action”, based on the equivalent definition in the CfD AR4, has been adapted to take into account the additional suspension rights and termination events applicable in the DPA Contract that are not included within the AR4 CfD LDA (e.g. Prolonged Force Majeure Event, failure to comply with Minimum CO₂ Capture Rate Obligation).

Confidentiality

Under Regulation 60 of The Contracts for Difference (Allocation) Regulations 2014, if the CfD Counterparty offers a CfD in accordance with a direction given under section 10(1) of the Energy Act 2013 and subsequently enters into that CfD, the CfD Counterparty is required to publish any CfD contract subject to exclusions for confidential information as defined in Regulation 60(3) and (4). But the regulations are clear that the strike price and reference price must be published.

In the absence of a strike price and reference price or any value in the DPA which is akin to a strike price or reference price, we propose that the most effective market comparator value in the DPA is the APRi (Availability Payment Rate per Settlement Unit) and the VPR (Variable Payment Rate for the day in the billing period (£/MWh)). We intend to publish these values for each Generator to ensure transparency.

In addition to publishing these terms we also anticipate publishing other contractual information set out in the LCCC CfD Register which are present in the DPA Contract, see condition 73 of the DPA Contract. This information would be published along with information contained within the Front End Agreement of the DPA.

Gain share

In the October 2021 Dispatchable Power Agreement business model update we noted that we were considering whether the introduction of gain share provisions to the DPA Contract may be necessary to ensure that the DPA reflects value for money for the consumer. We have now developed a gain share mechanism which we are minded to apply to the initial DPA Contracts. The government may consider (at its discretion) that such a mechanism is not required for certain DPA Contracts where a Project can demonstrate that there is a sufficiently low risk of overcompensation arising under the terms of the DPA Contract and where the government is

satisfied that this would be consistent with subsidy control rules and would still reflect value for money for consumers.

The gain share mechanism provides for two types of gain share if a Generator's profits exceed an agreed equity IRR threshold:

- 'Project gain share' for which Projects would be required to periodically pay 30% of profits above the agreed equity IRR threshold to the DPA Counterparty every 5 years; and
- 'Sale gain share' where the sale of a material (direct or indirect) economic interest in the Generator before the later of 5 years from the Start Date, and the date on which the aggregate economic interests of an investor group in the Generator falls below 60% of its original level, shall also result in a 30% share of the profits on that disposal above the agreed equity IRR threshold being due to the DPA Counterparty.

If gain share provisions are included in the DPA, the Generator will be required to provide collateral of an amount equal to £35,000/MW in respect of its gain share obligations in the final years of the contract. An additional Generator Default Termination Event which would occur if such credit support requirements were not met would therefore be added to the DPA where gain share provisions are included.

Our 'minded to' position in relation to any gain share provisions to be included in a DPA Contract is summarised in Annex A to this business model consultation. We invite views on this as part of the business model consultation – please see consultation questions 10, 11 and 12.

Consultation questions

Principles guiding the design of the power CCUS business model were specified in the December 2020 DPA update. The following questions seek to establish the extent to which the proposed business model and draft contract meet those principles:

- 1. Do you agree that the proposed Availability Payment component of the DPA Contract incentivises efficient decarbonisation and best in class carbon capture technology selection? If not, what changes do you think are necessary to facilitate this?**
- 2. Do you agree that the proposed Availability Payment and Variable Payment in the DPA Contract will ensure that a power CCUS Facility reacts to electricity market price signals and provide dispatchable output without incentivising it to generate at all times thereby displacing lower cost and lower carbon generation sources such as renewables and nuclear? If not, what amendments do you consider necessary to achieve this objective?**
- 3. The objective of the Variable Payment is to incentivise a power CCUS Facility to dispatch ahead of an unabated reference Plant. Do you agree that the proposed Variable Payment mechanism achieve this? If not, what further amendments do you consider necessary to achieve this objective? Please provide your reasoning.**
- 4. Are there any additional hurdles to a power CCUS Facility retaining the flexibility to respond to market conditions and consumer needs over the term of the DPA Contract considering foreseeable evolution of the power generation composition and demand profile over this time?**
- 5. Do you agree that the standard terms and those project specific terms in the Front End Agreement of the DPA Contract are capable of equally incentivising investment in new build, re-powering and retrofit Projects alike? Alternatively, are there particular provisions which you consider require modification to facilitate investment in a particular type of Project (please explain why this is the case in your response)?**
- 6. Do you consider risk is appropriately allocated to enable investment in Projects and value for money for consumers? If not, please indicate the aspects of the contract where you believe risk is not appropriately allocated and why.**
- 7. Power CCUS projects will be part of a wider CCUS network. A T&S Prolonged Unavailability Event would have a significant impact on any project connected to the network, including those projects holding DPA Contracts. We need to consider how to best manage this interface risk. We have set out an initial minded to position on the termination right where there is a T&S Prolonged Unavailability Event, which seeks to balance the risk held by investors in the power CCUS**

project and investors in transport and storage and the wider network. Do you consider that there is a fair allocation of risk between the different interests in relation to Termination for T&S Prolonged Unavailability Events? If not, please provide your rationale.

- 8. We have proposed testing requirements specified in annex 2 “Testing Requirements” of the draft DPA Contract to provide clarity on what is expected from Generators during the Performance Tests detailed in the DPA. We have sought to align these requirements with industry standards and expectations. Does the proposed Testing Requirements strike the right balance between robustly assessing the performance of a Facility and not being overly onerous on a Generator? If not, what amendments do you think are necessary to determine performance of the Facility against?**
- 9. Do you consider the proposal to enable the publication of certain contractual information by the DPA Counterparty to be proportionate and reasonable in light of our policy objective? If not, please provide your reasoning and which elements should be published in the alternative.**
- 10. As outlined, do you agree that the inclusion of a gain share mechanism in the DPA Contract is a proportionate measure to mitigate the risk of overcompensation and to facilitate compliance with subsidy control principles? If you believe the inclusion of a gain share mechanism is a disproportionate measure to achieving our objectives, or could significantly inhibit investment in the DPA, please provide your rationale.**
- 11. The proposed gain share schedule would provide for two types of gain share, ‘Project gain share’ and ‘sale gain share’, in each case where such profits exceed a certain defined threshold.**

At what level of Equity Internal Rate of Return (Equity IRR) do you consider that gains should be shared under the gain share mechanism? Please provide context and evidence in your response.

- 12. At what level of Equity IRR for a power CCUS Project do you consider that the risk of overcompensation under the DPA is low enough that the gainshare mechanism outlined here should not be required in order to mitigate that risk? Please provide context and evidence in your response.**

Next steps

The purpose of the consultation is to ensure that the proposals and ongoing policy development in relation to the business model takes in to account all relevant considerations in meeting the policy objectives that government initially set out and summarised above and that all stakeholders have the opportunity to provide relevant feedback on the draft business model design. We will use the responses to identify if we have overlooked any aspects that may inhibit the application of the business model and address any relevant points in the final form of the DPA contract to ensure it can fully achieve the policy aims. We intend to publish a response to this consultation which would be accompanied by a summary of the responses received to this consultation.

Glossary

Term	Description
AR4	Allocation Round Four (referring to the fourth Contract for Difference allocation round for renewable technologies).
AP	Availability Payment
BEIS	Department for Business, Energy and Industrial Strategy
BMRP	Baseload Market Reference Price - calculated on a seasonal basis pursuant to condition 15 of the Contract for Difference Standard Terms and Conditions.
Capex	Capital expenditure
CCGT	Combined Cycle Gas Turbine
CCUS	Carbon Capture, Usage and Storage
CCS	Carbon Capture and Storage
Cluster	Transportation and storage network (incorporating the onshore and offshore network and offshore storage facility) and an associated first phase of carbon capture projects.

CfD	Contract for Difference
CIF	CCS Infrastructure Fund
CM	Capacity Market
CO ₂	Carbon Dioxide
DPA	Dispatchable Power Agreement
December 2020 update	Carbon capture, usage and storage: an update on business models (December 2020), available at: https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models
FEED	Front End Engineering Design
FID	Final Investment Decision
FOAK	First-Of-A-Kind
GB	Great Britain
HHV	Higher Heating Value
HMG	Her Majesty's Government
HoTs	Heads of Terms (for the Dispatchable Power Agreement) October 2021.
ICC	Industrial Carbon Capture
IMRP	Intermittent Market Reference Price is the GB Day Ahead Hourly Price published by the Intermittent Day Ahead Indices.
JEP	Joint Environmental Programme
LHV	Lower Heating Value - the products of combustion contains the water vapor and the heat in the water vapor is not recovered.

May 2021 update	The Carbon Capture, Usage and Storage (CCUS): business models update published in May 2021. https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models
MW	Megawatt
MWh	Megawatt hours
NDC	Net Dependable Capacity
NTS fuel mix	The fuel mix used in the National Transmission System.
OCP	Operational Conditions Precedent
October 2021 update	The Carbon capture, usage and storage (CCUS): business models update published in October 2021: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1023071/dpa-business-model-october-2021.pdf
Opex	Operating expenditure
QCiL	Qualifying Change in Law
UK REMIT	Regulation on Wholesale Energy Market Integrity and Transparency
Storage	Geological store for the captured CO ₂ from the end of the injection well.
SCADA	Supervisory Control and Data Acquisition system to control industrial processes.
TCW	Target Commissioning Window
T&S	Transport and Storage
T&SCo	A company licensed to provide transport and storage services
UK	United Kingdom of Great Britain and Northern Ireland

Referenced publications

Business models for carbon capture, usage and storage: Consultation (July 2019), available at <https://www.gov.uk/government/consultations/carbon-capture-usage-and-storage-ccus-business-models>

Business models for carbon capture, usage and storage: Response (September 2019), available at <https://www.gov.uk/government/consultations/carbon-capture-usage-and-storage-ccus-business-models>

Carbon capture, usage and storage: an update on business models (December 2020), available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

Dispatchable power agreement (DPA) - detailed explanation and examples: December 2020 update (Annex C), available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

Dispatchable power agreement (DPA) - heads of terms: December 2020 update (Annex D), available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

Cluster sequencing for CCUS deployment: Phase-1 – guidance (May 2021), available at: <https://www.gov.uk/government/publications/cluster-sequencing-for-carbon-capture-usage-and-storage-ccus-deployment-phase-1-expressions-of-interest>

Dispatchable power agreement (DPA) business model: May 2021 update, available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

Carbon capture usage and storage: amendments to Contracts for Difference regulations (July 2021), available at: <https://www.gov.uk/government/consultations/carbon-capture-usage-and-storage-amendments-to-contracts-for-difference-regulations>

Dispatchable power agreement (DPA) business model: October 2021 update, available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

Dispatchable Power Agreement (DPA) provisional Heads of Terms (Annex A): October 2021 update, available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

November 2021: Updates on the industrial carbon capture and dispatchable power agreement business models, available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models/november-2021-updates-on-the-industrial-carbon-capture-and-dispatchable-power-agreement-business-models>

Cluster sequencing for carbon capture, usage and storage (CCUS) deployment: Phase-2 guidance (November 2021), available at: <https://www.gov.uk/government/publications/cluster-sequencing-for-carbon-capture-usage-and-storage-ccus-deployment-phase-2>

Transport and storage business model: January 2022 update, available at: <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

This consultation is available from: www.gov.uk/beis

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