

Carbon Capture, Usage and Storage

Dispatchable Power Agreement business model summary



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Introduction

The summary set out in this document outlines the key design aspects of the Dispatchable Power Agreement ("DPA"). A DPA is a private law contract between a carbon emitting electricity generator and Government which sets out the terms for capturing and storing carbon and the compensation which the generator will receive in return. The DPA business model, to support power generation with carbon capture and storage, has been developed following our initial consultation on possible new business models for carbon capture usage and storage (CCUS) held in July 2019¹.

We have set out in this document a summary of the DPA business model. It explains the contractual framework and draws attention to amendments we have made to it since consulting on the draft DPA in April 2022.

We have developed the DPA design, articulated in updates released between December 2020 and April 2022 following engagement with CCUS expert groups, industry and relevant regulators. The business model summarised in this document incorporates a number of additional positions developed subsequent to the feedback we received from the draft DPA consultation we opened in April 2022 and closed in June 2022² (referred to as the "DPA Consultation"). A small number of provisions remain in square brackets and / or specifically footnoted as requiring further development by BEIS prior to finalisation of the DPA. This document should be read in conjunction with: (i) the government response to the DPA Consultation; (ii) DPA Front End Agreement; and (iii) DPA Conditions, published in connection with this DPA Business Model Summary in November 2022. These documents should also be read in conjunction with the earlier (December 2020, May 2021, October 2021, November 2021 and April 2022) DPA business model updates.

We are now proposing to use these documents in the negotiation / due diligence phase of the Track-1 Phase-2 of the Cluster Sequencing for Carbon Capture Usage and Storage Deployment process³.

A number of the 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 DPA, that were not included in the April 2022 draft Contract or articulated in the earlier DPA Business Model updates are summarised below for ease of reference:

- We have acknowledged that the Target Commissioning Window will need to be aligned with the wider Cluster development.
- Expanded the process for Generator-submitted Declared CO₂ Capture Rates, and the process associated with the DPA Counterparty's right to test such Declared CO₂

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

² DPA Consultation

³ Cluster sequencing for carbon capture, usage and storage (CCUS) deployment: Phase-2 guidance (November 2021)

Capture Rates. We have also removed the concept of a 12-month average capture rate as part of the Deemed CO₂ Capture Rate mechanism, to better reflect actual plant performance.

- Amended the Variable Payment calculation to remove the transmission loss multiplier adjustment from the calculation.
- Confirmed that a Capture Outage Relief Event is not applicable if access to a Transport and Storage (T&S) Network has been refused due to a material breach of the CCS Network Codes by the Generator (or its Representatives).
- We have adapted the Annual Net Dependable Capacity (NDC) Performance Testing requirement to provide flexibility to Generators to propose when it is most efficient to undertake the test during each operational year.
- We acknowledge that a 1MW threshold for defining Generation Outage Events may be too granular therefore we have amended the contract threshold for defining these events 1% of NDC.
- Clarified information required from a Generators SCADA system.
- Expanded the definition of Specific Change in Law to include a Change in Law which specifically impacts recipients of a CCUS Programme DPA.
- Expanded the definition of Other Change in Law to include all generators which operate generating facilities deploying CO₂ Capture Technology, the generation output of which is not subject to a CCUS Programme DPA as a comparator group.
- Expanded the T&S Prolonged Unavailability Termination provision to include a T&S Cessation Event (which includes if the T&S Operator's licence to operate the relevant T&S network is revoked).
- Introduced a control of change contractual provision to enable the DPA Counterparty approval rights over changes in control in the Project up to one year after the Commercial Operation Date that can be withheld unless the share transfer maintains a specified financial & technical competence.

In the Net Zero Strategy we announced our ambition to begin competitive allocation for Power CCUS Projects in the 2020s. A call for evidence has now been issued 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.

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General information

Background

This publication sets out how the business model and associated DPA have developed since the first publication of the proposed DPA business model⁴ in December 2020 which set out the principles of the model design along with provisional Heads of Terms⁵.

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 consultation⁶ 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;

⁴ Carbon capture, usage and storage: an update on business models (December 2020)

⁵ Dispatchable power agreement (DPA) - heads of terms: December 2020 update (Annex D)

⁶ 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 developing 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.

Disclaimer

The proposed terms described in this document and the associated DPA (includes DPA Front End Agreement and DPA Terms and Conditions which now incorporates the DPA Gain Share Schedule) will 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 publication, do not therefore constitute an offer by government and do not create a basis for any form of expectation or reliance.

The 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.

This publication, including the associated 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 summary of the terms of the DPA in this document should be read in conjunction with the full form DPA published alongside this document. It is intended to be used as a helpful guide, but as above, should not form the basis for any form of expectation or reliance. If there is a conflict between the summary of terms in this document and the DPA, the DPA shall prevail.

Unless the context otherwise requires, capitalised terms used but not defined in this letter have the same meaning as ascribed to them in the DPA.

The proposals

Introduction

What is the DPA

This document sets out our proposed positions to enter into the negotiation / due diligence phase of the Track-1 Phase-2 of the Cluster Sequencing for Carbon Capture Usage and Storage Deployment process⁷. The capitalised terms used in this document are as defined in the DPA (attached to this publication) 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 (AR4 CfD) standard terms and conditions but adapted to enable natural gas fired power CCUS facilities ("Project") to play a mid-merit⁸ 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)⁹ 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-2¹⁰ of this process. The application window for Phase-2 closed on 21 January 2022.

Projects selected following successful evaluation in Phase-2 of the CCUS Cluster Sequencing Process have been 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 guidance¹¹.

⁷ <u>Cluster sequencing for carbon capture, usage and storage (CCUS) deployment: Phase-2 guidance (November 2021)</u>

⁸ In the context of electricity generation, the term 'merit order' refers to the sequence in which power generation plants are designated to deliver power to the grid, from cheapest to most expensive.

⁹ See 'Definition of Reference Plant' section of this document.

¹⁰ See document at footnote 6.

¹¹ See document at footnote 6.

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 CCUS¹² including an amendment to the definition of an Eligible Generator. The response to that consultation was published on 29 March 2022 and The Contracts for Difference (Miscellaneous Amendments) Regulations 2022 came into force on 21 June 2022.

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 Assets and Capture Assets that makeup the Facility;
- (b) the "DPA Conditions", which is a set of standard terms (which includes the gain share schedule), which will be common for all DPA recipients;
- (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; and

together known as ("the DPA").

We have published a Government response to the Consultation we closed in June 2022 alongside this publication.

Parties

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

Term length

Regardless of whether developing a new build, repowered or retrofit Project, Generators will have flexibility to choose an appropriate term length that is between 10 and 15 years¹³. The intention is to provide flexibility across a range of different approaches to implementing Power

¹² Carbon capture usage and storage: amendments to Contracts for Difference regulations (July 2021)

¹³ Policy on term length is set out in more detail on page 8 of the <u>Dispatchable power agreement (DPA) business</u> model: October 2021 update

CCUS whilst also facilitating competitive pricing and term lengths that are proportionate to the remaining operational life of each respective Project.

Contract Milestones

There are requirements which must be fulfilled by the Generator at various stages of the contract lifecycle between the Agreement Date through to Start Date. 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 contractual 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 DPA Conditions. 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 and deter speculative or underdeveloped Projects from applying for a DPA. 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. The formulation of this figure will be determined 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.

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.

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, 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 TCW¹⁴ passes before the Generator has met the OCPs, the DPA 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.

The details of the OCP requirements are set out in full Part B (Operational Conditions Precedent), Annex 1 (Conditions Precedent) of the DPA 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.

¹⁴ More detail about the TCW is explained on page 8 of the <u>Dispatchable power agreement (DPA) business</u> model: <u>May 2021 update</u>

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 due diligence and negotiation phase prior to the Agreement Date and with reference to the wider Cluster delivery plan. This period may be extended in some specific circumstances which are set out in detail in the definition of Target Commissioning Window in the DPA (and which include Force Majeure, electricity/gas network connection delays and T&S commissioning delays).

Longstop Date¹⁵

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 DPA (and which include

¹⁵ More detail on the Longstop Date is set out on page 9 of the <u>Dispatchable power agreement (DPA) business</u> model: <u>May 2021 update</u>.

Force Majeure, electricity/gas network connection delays and T&S 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 Requirements¹⁶

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 CO₂ at the rate originally estimated 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 (Net Dependable Capacity)	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%).

¹⁶ More detail on the Longstop Date Commissioning Requirements is set out in the <u>Dispatchable power</u> 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 Plant Net Efficiency Estimate.
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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 DPA¹⁷.

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 (with a floor of 85%)
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 include a combination of Full Load Tests, Start Up (Shutdown) Tests, Annual NDC Tests, and if required, a CO₂ Capture Rate Test. These tests must be carried out in accordance with specified Test Performance Standards. The Full Load Test and Start Up (Shutdown) Performance Tests will be required to demonstrate that the Minimum OCP/LSD

¹⁷ Termination provisions are summarised in the section 'Termination and Consequences of Termination' below.

Performance Test thresholds have been achieved. A CO₂ Capture Rate Test requirement is a discretionary testing option available to the DPA Counterparty to validate a Declared Capture Rate during the term of the Contract.

It is necessary to specify the Test Performance Standards to ensure that a consistent minimum standard is applied across Generators holding DPA contracts so that we have confidence in the information being provided upon which subsidy is offered. We have sought to ensure the Performance Testing requirements are sufficiently flexible for Generators to tailor their proposed Testing Procedures, recognising that there is ongoing development of Performance Testing Standards applicable to Power CCUS Facilities.

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 (i.e. those works which the Generator has to carry out to support the connection with the T&S network).

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 six (6) months after the T&S Network Availability Date.

Notwithstanding the availability of the T&S Network, the DPA Counterparty will have the right but not obligation, if the Generator fails to fulfil the T&S Connection Confirmation Requirement:

i. at the date three (3) months from the T&S Network Availability Date, to set the Availability of Capture, ACi = 0, for each subsequent Settlement Unit "i" until the Generator has fulfilled the T&S Connection Confirmation Requirement; or

ii. at the date six (6) months from the T&S Network Availability Date, to terminate the DPA (a 'Termination for failing to satisfy the T&S Connection Confirmation CP') on a noliability basis.

Separately, in the event that a T&S Commissioning Delay Event has been continuous for a period of at least six (6) months, this shall constitute a T&S Prolonged Unavailability Event and will be subject to the Termination for T&S Prolonged Unavailability Event procedure. 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 (APRi, expressed in £) which will be agreed in the cluster sequencing process 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:

$$AP = \sum (AG_i \times AC_i \times NDC \times APR_i) + TSCC + TSNC$$

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

Term	Definition	Source
		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.
TSCC	T&S Capacity Charge in the AP Billing Period (£)	Calculated ¹⁸
TSNC	T&S Network Charge being the portion of any T&S residual charge relevant to the size of user's connection ¹⁹ (£) in AP billing period.	Calculated ²⁰

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:

$$AG_{i} = AG_{OE_{n}} = 1 - \frac{\sum \left(\left(NAC_{OE_{n}} - NAC_{j} \right) \times \Delta T_{j} \right)}{NAC_{OE_{n}} \times \Delta T_{Settlement\ Units}}$$

¹⁸ The calculation of the T&S Capacity Charge for the AP Billing Period is set out in the DPA Contract.

¹⁹ T&S charging methodology maybe subject to change as the CCS Network Codes develop, see <u>T&S Network</u> Code Heads of Terms and supporting documents.

²⁰ The calculation of the T&S Network Charge for the AP Billing Period is set out in the DPA Contract.

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)
$\Delta T_{Settlement\ Units}$	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 it would have been provided had UK REMIT been available.

More information about the treatment of outages and the declarations system in the DPA Conditions 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):

$$AC_i = ACR_{ph}$$

 For an AP Settlement Unit where the T&S Operator has notified the Generator it would reject or refuse delivery of CO₂ at the Generator's CO₂ Delivery Point due to a material breach of the CCS Network Codes, a failure to provide Required Security or an outstanding payment due to the T&S Operator²¹:

$$AC_i = 0$$

Term	Definition	Source
ACR_{ph}	Achieved CO ₂ Capture Rate in the AP Billing Period (%)	Calculated (see further detail below)
DCR _i	Declared CO ₂ Capture Rate (%) for AP Settlement Unit (i)	Declared by Generator (see 'Declarations' below)

Table 6: Definition of terms in the Calculation of Availability of Capture 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 Capture Outage Relief Event excluded from the calculation. This is calculated with the following formula:

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

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

 $^{^{21}}$ We consider that where the T&S Operator has notified the Generator that it will reject or refuse access to the T&S Network, the Generator is not available to capture and permanently store CO_2 and that it is therefore appropriate to set $AC_i = 0$.

Term	Definition	Source
$CO2_{gen}$	AP Calculated CO ₂ Generated (over an AP Billing Period) (tCO ₂)	Calculated from Total Metered Fuel Consumption and the Fuel Composition using JEP ²² 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. 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 be irrevocable. The Generator may not subsequently increase the Net Dependable Capacity Estimate²³.

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 DPA Conditions. For the purposes of the DPA (in particular, the Availability Payment calculation), a revised test

²² Joint Environmental Programme

²³ The terms of the 'permitted reduction' provision are subject to further review by BEIS as the T&S business model develops.

achieved NDC figure shall not exceed the Initial NDC Estimate upon which budgetary control is based.

The Parties shall agree during the negotiation phase of the DPA the window within which a Generator must undertake its Annual NDC test each operational year. This window will precede the Annual Adjusted NDC Implementation Date that will be specified in the Front End Agreement. This provides a Generator with the flexibility to determine when it is most economically efficient for it to undertake any planned maintenance periods prior to conducting the NDC test.

The purpose of the NDC testing requirement is to incentivise an ongoing high level of available low carbon generating capacity throughout the contractual term ensuring linkage between the Availability Payment and verifiable level of Net Dependable Capacity on a forward-looking annual basis. It also ensures consistency of assessment and provides a standardised audit trail which, given the commitment of subsidy, ensures a robust assessment of plant performance safeguarding value for money for consumers.

Transport and Storage charges

The June 2022 Carbon Capture, Usage and Storage: CCS Network Code Indicative Heads of Terms²⁴ set out that T&S charges will have three elements comprising:

- 1. A Flow Charge based on the mass of the emissions stream (tCO₂) injected into the T&S network to cover T&S variable operational costs,
- 2. A Capacity Charge based on the users booked network capacity to cover T&S fixed capital cost, and
- 3. A Network Charge to cover the remainder of user's share of the T&S allowed revenue which is anticipated to be charged based on £/unit of size of user's connection²⁵ and will be subject to a cap.

The DPA will cover the Capacity and Network Charges that are associated with operating the Facility through the TSCC and TSNC terms in the Availability Payment (as set out above). The Network Charge 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 Generator injects into the T&S Network or the amount of electricity that the Generator exports to the grid and so it would not be appropriate to include as a term in the Variable Payment. The Flow Charge 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.

²⁴ https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models

²⁵ See footnote 19 regarding development of T&S Network Code.

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 three (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 three (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 suspend 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.
- Provides false, inaccurate or misleading Subsidy Control Declaration information.
- Fails to Comply with T&S Connection Confirmation Requirement.

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, other than Compliance of Technology undertaking, 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 Flow Charge and Other Extra Variable Costs incurred by the Facility relative to the Reference Plant, to incentivise 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:

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

$$VPR = GC + CC + OC + TSFC_{PR}$$

Term	Definition	Source
VP	Variable Payment in the VP Billing Period (£)	Calculated
VPR	Variable Payment Rate for the VP Billing Period (£/MWh)	Calculated
MWh	Metered Day Electricity Output for the VP Billing Period (MWh)	Metered at entry to electricity transmission / distribution network, and reported by a BSC company (or agent) to the DPA Counterparty.
GC	Gas Cost Differential due to CCUS (£/MWh)	Calculated ²⁶
CC	CO ₂ Cost Differential due to CCUS (£/MWh)	Calculated ²⁷
OC	Other Extra Variable Costs due to CCUS (£/MWh)	Agreed in DPA and indexed to inflation
$TSFC_{PR}$	T&S Flow Charge Payment Rate (£/MWh)	Calculated ²⁸

Table 9: Definition of terms in the Variable Payment Formula

²⁶ The calculation of the Gas Cost Differential is specified on page 20 of the <u>Dispatchable power agreement (DPA)</u> - detailed explanation and examples: December 2020 update (Annex C)

²⁷ Calculation of CO₂ Cost Differential specified on page 20 of the <u>Dispatchable power agreement (DPA) - detailed</u> explanation and examples: December 2020 update (Annex C)

²⁸ Calculation of T&S Flow Charge Payment 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:

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

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) set in the Front End Agreement.
GU_{Ref}	Reference Plant Gas Consumption (therms/MWh) set in the Front End Agreement.

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

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

CO₂ Cost Differential and Carbon Price

A carbon price indicator is used in the calculation of the CO_2 Cost Differential between the Power CCUS plant and unabated Reference Plant. The CO_2 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)
CO2E _{CCUS}	Facility CO ₂ Emissions in VP Settlement Unit (i) (tCO ₂ /MWh)
$CO2E_{Ref}$	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 with the soonest delivery date 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 CMRP Review Procedures detailed in Annex 7 of the DPA Conditions. The review procedure broadly follows that for BMRP and IMRP in AR4 CfD.

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) and 56.2% GCV basis based on Electricity Generation Costs 2020 report²⁹ published in August 2020.

²⁹ Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal

We have determined that:

- The Reference Plant Gas Consumption will initially be set as 60.714 therms/MWh; and
- The Reference Plant CO₂ Emissions will initially be set as 0.3265 tCO₂/MWh.

These figures have been derived using the efficiencies stated above alongside the carbon intensity of natural gas (183.52gCO₂ per kWh,GCV-fuel) set out in Table 2a of the Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal³⁰, updated on 15 July 2021.

The same Reference Plant shall be applied to all initial DPA Generators including retrofit and new build Generators alike. This is so that Generators are incentivised to reach the same minimum short run marginal cost, equal to the best-in-class unabated reference plant on the GB system.

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.

³⁰ See footnote 29.

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 DPA Conditions.

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 Billing Period.

The gas day runs from 05:00 to 05:00 the following day therefore this will necessitate applying two day-ahead gas prices to each VP Settlement Unit calculation – the first running from 00:00 to 04:59 and the second running from 05:00 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 DPA Conditions. 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 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 a DPA

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 REMIT³¹ (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.

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 two (2) or more consecutive AP Settlement Units.

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. The Declared CO₂ Capture Rate shall be the CO₂ Capture Rate (expressed as a percentage (%)) which the Facility would achieve when operating at full load at the time the declaration was made, corrected to Reference Site Conditions, and assuming that a T&S Network is available to enable the Facility to export all captured CO₂ to such T&S Network.

The first Declared CO₂ Capture Rate following a period where the Metered Electricity Output was greater than zero (0) shall be no higher than the most recent AP Settlement Unit in which

³¹ 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)

the AP Calculated CO₂ Generated over that Settlement Unit is at least 85% of the maximum AP Calculated CO₂ Generated that the Facility can generate over a single Settlement Unit within the most recent continuous four-hour period, based on the Facility's NDC at that time. In other words, the first Declared CO₂ Capture Rate shall be no higher than the most recent "full load" AP Settlement Unit.

The same Declared CO₂ Capture Rate will then automatically be submitted for each subsequent Settlement Unit, unless specifically amended by the Generator. Amendment of the Declared CO₂ Capture Rate by the Generator must be accompanied by Supporting Information to be received by the DPA Counterparty within (two) 2 days of the relevant Settlement Unit in which the Declared CO₂ Capture Rate change has been made, or else that change will be invalid.

The DPA Counterparty may request a CO₂ Capture Rate Test at any time to verify a Declared CO₂ Capture Rate, which must take place within one (1) Business Day of receipt of that request by the Generator unless otherwise specified by the DPA Counterparty. The Test Achieved CO₂ Capture Rate specified in the CO₂ Capture Rate Test Report will then be submitted as the Declared CO₂ Capture Rate on a forward-looking basis for all subsequent AP Settlement Units until:

- (i) the next AP Settlement Unit where the Achieved CO₂ Capture Rate is applicable pursuant to the definition of Availability of Capture; or
- (ii) the next AP Settlement Unit where a CO₂ Capture Rate Test has been undertaken in accordance with the DPA; or
- (iii) the Generator can justify an alternative Declared CO₂ Capture Rate to the satisfaction of the DPA Counterparty.

If the Test Achieved CO₂ Capture Rate specified in the CO₂ Capture Rate Test Report is lower than the relevant Declared CO₂ Capture Rate, which is that being tested, by at least [two (2) percentage points], then the Test Achieved CO₂ Capture Rate shall be deemed to be the Declared CO₂ Capture Rate for all previous Settlement Units in which the Declared CO₂ Capture Rate was higher than that Test Achieved CO₂ Capture Rate until the nearest AP Settlement Unit where:

- (i) the Achieved CO₂ Capture Rate is applicable pursuant to the definition of Availability of Capture; or
- (ii) a previous CO₂ Capture Rate Test had been undertaken in accordance with the DPA.

If any Declaration Capacity Data (i.e. relating to Generation Declaration Capacity Data, Full Capture or T&S Outages and/or Declared CO_2 Capture Rates) that a Generator provides is misleading in, or the Generator's failure to provide such Declaration Capacity Data is misleading, provided that (A) the Generator knew that such data was, or a failure to provide such data would be, misleading; (B) the Generator acted recklessly in providing or failing to

provide such data; or (C) the Generator failed to make all due and careful enquiries when providing such data then the DPA Counterparty will have the right (but not the obligation) to terminate the DPA.

Minimum CO₂ Capture Rate Undertaking

If a Generator fails to achieve a Minimum CO₂ Capture Rate Average, that being an Achieved and Declared CO₂ Capture Rate Average of seventy percent (≥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 under Suspension of Payments 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, at the Agreement Date, Generators will need to provide

estimates of Net Dependable Capacity, Plant Net Efficiency, Start-Up Times and the estimated Test Achieved CO₂ Capture Rate at the Start Date. The Generator will then need to provide the estimated 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 access to plant dispatch information, fuel gas consumption and composition information, CO₂ export information and data relevant to the status of capture plant operation (e.g. stored solvent regeneration) 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 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.

In response to the DPA Consultation³², a respondent requested clarification that the definition of "Project" does not mean that under the Subsidy Control Declaration Operational CP, a retrofit Project that has previously benefitted from other contractual arrangements or support schemes (e.g. CfD or Capacity Market) is excluded from DPA support. We have outlined in the government response to the consultation, published alongside this document, that this is not the objective of the Subsidy Control provisions in the Contract and we note that the definition of "Project" will be reviewed and may be amended by BEIS for retrofit projects, to provide further assurance.

We have also introduced the defined term of "An Approved Scheme of Funding" to the Subsidy Control Declaration OCP and No Cumulation of Subsidy Warranty requirements. This definition is expected to be relevant if any funding has been provided to the Generator and/or its Affiliates under the Industrial Strategy Challenge Fund and/or the BEIS Energy Innovation Programme for development/pre-development expenditure incurred in respect of the DPA Project prior to the Agreement Date. Such funding will need to be notified to, and verified by, BEIS on a project-by-project basis and set out in the Agreement. It can be expected that such funding would not need to be repaid (subject to Subsidy Control Principles and the funding being correctly notified to, and verified by, BEIS). However, any funding that has been received

³² DPA April 2022 Consultation.

under "An Approved Scheme of Funding" will be taken into account when calculating the payments arising under the DPA to prevent subsidy cumulation. The DPA Conditions and Front End Agreement (published alongside this document and the government response to the April 2022 DPA consultation) set out this mechanism and the subsidy control provisions in greater detail.

Supply Chains

Economic benefits and supply chain reporting

In April 2022, we provided an update on the DPA³³ and Industrial Carbon Capture³⁴ business models on the proposed process for Projects to report on the economic benefits and CCUS supply chains associated with the development of their CCS capture plant projects. We committed to providing guidance and a template for the report, which needs to be completed at each of the reporting milestones. The terms of this requirement have been updated in the DPA Conditions and the report template can now be found at Annex 9 in the DPA Conditions ("Form of Supply Chain Report: Part A") and on gov.uk ("Form of Supply Chain Report: Part B")³⁵. The information provided through these reports will be used to provide the DPA Counterparty and the Secretary of State with key economic, technical and commercial data around the supply chain and the value drivers that underpin it.

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:

- 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.
- Specific Change in Law. This is a change in law that specifically applies to generating facilities (or their holding companies): A) deploying CO₂ Capture Technology forming part of such generating facilities and not to other generating facilities or which are in receipt of a DPA; or (b) the generation of output of which is subject to a CCUS Programme DPA, and not in respect of any generating facilitates not subject to a CCUS Programme DPA.
- Other Change in Law. This is a change in law which, whilst not specifically applying to Generators deploying CO₂ Capture Technology, has an undue discriminatory effect on the out-of-pocket costs incurred by them compared to one of four comparator groups defined below:

³³ <u>Dispatchable power agreement (DPA) business model summary and consultation: April 2022 update</u>, see pg. 37 of this document.

³⁴ Industrial carbon capture (ICC) business model summary and consultation: April 2022 update, see pg. 43 of this document.

³⁵ Dispatchable Power Agreement: Form of Supply Chain Report Part B (Spreadsheet): November 2022

- 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;
- Comparator Group D: all generators operating generation facilities deploying CO₂
 Capture Technology other than the Generator's CO₂ Capture Technology;
- Comparator Group E: all generators which operate generating facilities deploying CO₂ Capture Technology, the generation output of which is not subject to a CCUS Programme DPA

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

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;
- 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 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 adaptions being made for the DPA. As confirmed in the December 2020³⁶ update, a Pre-Start Date termination will be on a no-liability basis to either party.

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 waived the T&S Connection Confirmation CP and triggered the T&S Connection Confirmation Requirement and this is not fulfilled by the Generator on or before the T&S Connection Confirmation Deadline, (the date falling six (6) months after the T&S Network Availability Date), the DPA Counterparty will have the right, but not the obligation, to terminate the DPA. Termination in these circumstances will also be on a noliability basis given it is the Generator's responsibility to construct and commission its Facility 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 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 is still ongoing.

As set out in the October 2021 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.

³⁶ Dispatchable power agreement (DPA) - detailed explanation and examples: December 2020 update (Annex C)

Termination for T&S Prolonged Unavailability Event

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 Facility 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]³⁷;
- 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;

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 summarised 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.

³⁷ BEIS are still considering the appropriate timelines so we have marked these timescales with square brackets to signal they could change.

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 evidence³⁸, 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;
 - 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;

³⁸ 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.

- 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 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 a DPA Contract does 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, and 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 Generator 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.

T&S Termination Compensation

In the event a Termination for T&S Prolonged Unavailability Event occurs, the 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 other costs associated with the Generator's financing arrangements)); 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) depreciation of all costs (other than break costs) on a straight line basis from the Start Date to zero (0) on the Specified Expiry Date (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 under its sole discretion, 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 in the October 21 DPA Business Model Update³⁹.

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:

- 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;

³⁹ <u>Dispatchable power agreement (DPA) business model: October 2021 update</u>

- Minimum CO₂ Capture Rate: A Capture Rate Termination Event (as discussed in Termination for Minimum CO₂ Capture Rate Breach above);
- Declarations: A Misleading Declaration Termination Event or a Declaration Access Termination Event (see Generator Declaration Obligations above);
- Credit Support: Fails comply with the credit support obligations pursuant to the Gain share schedule; and
- Cross-default: BEIS is minded to include a termination event if the T&S Connection
 Agreement is terminated due to the Generator's breach of default. This is subject to the
 development of the T&S Business Model, including details on the remediation process
 in respect of such a default under the T&S Connection Agreement.

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 Update⁴⁰.

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 AR4 CfD template. This is a tripartite agreement entered into by a lender or a security trustee on its behalf, the Generator and the DPA Counterparty.

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

⁴⁰ <u>Dispatchable power agreement (DPA) business model: October 2021 update</u>

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 AR4 CfD, 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, the most effective market comparator value in the DPA is the APRi (Availability Payment Rate per AP Settlement Unit) and the VPR (Variable Payment Rate for the day in the billing period (£/MWh)). This payment information and other contractual information as set out in the LCCC CfD Register⁴¹ will be included in the DPA Counterparty's register in accordance with the DPA Conditions, and this information is detailed in the definition of "DPA Register Information".

Gain share

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.

⁴¹ The Contracts for Difference (Standard Terms) Regulations 2014

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.

More detail on the gain share mechanisms can be found in the April 2022 DPA publications⁴², In the latest version of the contract, we have:

- Incorporated the gain share schedule into the main DPA contract;
- Included example forms of bond or parent company guarantee which can be used for the credit support requirement described above;
- Added additional avoidance event definitions for Group Relief Arrangements, Corporate Income Loss Restriction Arrangements, and/or Loss Restriction Arrangements which are designed to avoid gain share payments under the DPA.

Next steps

Negotiation and Next Steps

We set out in the Phase-2 guidance⁴³ 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 due diligence and initial negotiations in the CCUS Cluster Sequencing Process, when shortlisted Projects will engage with BEIS 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 early 2024.

The majority of the conditions in the DPA 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 components of the contract reflect the feedback received in the recent consultation undertaken and 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 will be subject to discussion in this phase. BEIS retains the right to draw additional aspects of the business model into negotiations on a discretionary basis.

⁴² <u>Dispatchable Power Agreement (DPA) gain share guidance (Annex A)</u>

⁴³ Cluster sequencing for carbon capture, usage and storage (CCUS) deployment: Phase-2 guidance (November 2021)

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.

Any decision to award a contract to any project, and the timing of such will be subject to government first satisfying itself as to compliance with relevant technical, legal, financial, commercial and/or policy requirements.

Glossary

Term	Description				
AR4 CfD	the Standard Contracts for Difference (CfD) Terms and Conditions for Allocation Round 4 for low carbon electricity.				
AP	Availability Payment				
April 2022 Update	Draft DPA consisting of the draft front end agreement, draft DPA terms and conditions and draft gain share schedule. Available at: https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models				
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				
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				
FOAK	First-Of-A-Kind				
GB	Great Britain				
GCV	Gross Calorific Value				
HHV	Higher Heating Value				
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				
LCCC	Low Carbon Contracts Company				
LHV	Lower Heating Value - the products of combustion contains the water vapor and the heat in the water vapor is not recovered.				
MW	Megawatt				
MWh	Megawatt hours				
NDC	Net Dependable Capacity				
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			
SCADA system	Supervisory Control and Data Acquisition system.			
Storage	Geological store for the captured CO ₂ from the end of the injection well.			
TCW	Target Commissioning Window			
T&S	Transport and Storage			
UK	United Kingdom of Great Britain and Northern Ireland			
UK REMIT	Regulation on Wholesale Energy Market Integrity and Transparency			

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

Dispatchable power agreement (DPA) business model summary and consultation: April 2022 update, available at: https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models

Industrial carbon capture (ICC) business model summary and consultation: April 2022 update, available at: https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models

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