EXPLANATORY MEMORANDUM TO

THE CONTRACTS FOR DIFFERENCE (MISCELLANEOUS AMENDMENTS) REGULATIONS 2022

2022 No. [XXXX]

1. Introduction

1.1 This explanatory memorandum has been prepared by Department for Business, Energy and Industrial Strategy and is laid before Parliament by Command of Her Majesty.

2. Purpose of the instrument

2.1 These Regulations amend the Contracts for Difference ("Definition of Eligible Generator") Regulations 2014 (S.I. 2014/2010) ("Eligible Generator Regulations") and the Contracts for Difference (Allocation) Regulations 2014 (S.I. 2014/2011) ("Allocation Regulations").

2.2 Part 2 amends the Eligible Generator Regulations by adding words to the definition of a "complete CCS system" to contemplate non-pipeline transport methods. Part 2 also widens the criteria for carrying out a generating activity to include altering an existing generating station into a generating station connected to a complete carbon capture and storage ("CCS") system.

2.3 Part 3 amends the Allocation Regulations so that contracts which do not specify a strike price and a reference price can be contemplated. The references to a "strike price" and a "reference price" are retained, however by amending the language to state that a "strike price" and "reference price" may be included, an alternative payment mechanism which does not use these terms can be used.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

3.1 None.

4. Extent and Territorial Application

4.1 The extent of this instrument, apart from regulation 3(2) is to the United Kingdom. The extent of regulation 3(2) is to England and Wales and Scotland only.

4.2 The territorial application of this instrument is to the United Kingdom other than regulation 3(2) which applies only to England and Wales and Scotland.

5. European Convention on Human Rights

5.1 Greg Hands MP has made the following statement regarding Human Rights:

"In my view the provisions of the Contracts for Difference (Miscellaneous Amendments) Regulations 2022 are compatible with the Convention rights."

6. Legislative Context

6.1 The Act set out that the Secretary of State may for the purpose of encouraging low carbon electricity generation make regulations about contracts for difference between a CFD[1] Counterparty and an eligible generator.

6.2 This instrument needs to be read alongside the Eligible Generator Regulations and Allocation Regulations which it amends.

7. Policy background

What is being done and why?

7.1 In November 2020, the Prime Minister's Ten Point Plan set out government's ambition to have a CCS sector with an operational capability of capturing 10 $MtCO_2$[2] per year by 2030. In the Energy White Paper 2020 and the subsequent Net Zero Strategy[3], government committed to use consumer subsidies to support construction of at least one Power CCS plant to be operational by 2030. The Dispatchable Power Agreement ("DPA") [4], which is in the process of being finalised, is a Power Carbon Capture Storage ("Power CCS") [5] subsidy (referred to as a "business model") intended to implement this commitment.

7.2 The DPA, which is the contract currently being designed for the Power CCS business model, is bespoke and based on the standard terms of the CFD used in allocation rounds, subject to specific adjustments to ensure that it meets the requirements of Power CCS. The DPA is the contract that is intended to be used to encourage investment into Power CCS projects that are using primarily natural gas fired combined cycle turbines with carbon capture storage equipment fitted to ensure abated low carbon electricity generation.

7.3 Power CCS, including both new build and retrofit projects, is intended to be brought forward as part of a wider Cluster Sequencing Process[6] which is intended to establish CCUS[7] Clusters made up of a Transport and Storage ("T&S") Network and connected CCS projects such as Power CCS, Industrial CCS[8] and Hydrogen CCS[9]. Power CCS projects selected as part of this process are intended to enter into a DPA.

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[1] **CFD**: Contracts for Difference

[2] **$MtCO_2$** is Megatonnes of carbon dioxide, where 1Mt is 1,000,000 tonnes.

[3] **Net Zero strategy** available here: https://www.gov.uk/government/publications/net-zero-strategy

[4] **DPA**: The Dispatchable Power Agreement ("DPA"), which is the contract currently being designed for the Power Carbon Capture Storage business model, is bespoke and based on the standard terms of the Contracts for Difference used in allocation rounds, subject to specific adjustments to ensure that it meets the requirements of Power CCS. See more in 16. Definitions table.

[5] **Power CCS**: Power carbon capture and storage, a gas fired power plant with additional equipment to capture the CO_2 produced when generating electricity, for transport to a permanent storage site.

[6] **The Cluster Sequencing Process** is the process concerned with establishing the sequence for groups of eligible 'emitter' projects (such as Power CCS projects and Industrial CCS projects) and the eligible transport and storage project, that together are referred to as 'clusters'.

Carbon capture and storage is an interdependent process which requires coordination between CO_2 emitter projects and a connected CO_2 transport and storage network. There were multiple potential 'cluster' sites identified across the UK and so the cluster sequencing process was designed to run across multiple 'Tracks'. Track-1 is being executed across two phases. See further information in 16. Definitions table below.

[7] **CCUS:** The U stands for usage, although for the purposes of this Statutory Instrument, we refer to Carbon Capture and Storage only

[8] **Industrial CCS** – industrial carbon capture and storage, industrial facilities (eg. steel or cement factories, fertiliser or chemicals producers, refineries) with additional equipment to capture their CO_2 emissions, for transport to a permanent storage site.

[9] **Hydrogen CCS** – Some (but not all) processes for producing hydrogen involve consumption of natural gas and consequential CO_2 emissions. Facilities undertaking these processes can be fitted with CCS equipment that can capture their CO_2 emissions for transport to a permanent storage site.

7.4 The government is currently in the process of assessing the applications made by power projects for the Cluster Sequencing Process. This instrument has been laid in preparation for the outcome of Phase-2, to ensure that the DPA can be entered into with any successful Power CCS applicants.

7.5 The Act set out that the Secretary of State may for the purpose of encouraging low carbon electricity generation make regulations about contracts for difference between a CFD Counterparty and an eligible generator. Following the 2020 Energy White Paper, a business model for Power CCS has been designed to encourage low carbon electricity generation.

7.6 The DPA is intended to be entered into under section 10 the Act. Section 10 permits the Secretary of State to direct a CFD counterparty to offer to contract with a project or entity specified in the direction, on terms specified in the direction. A project or entity may be specified in such a direction only if that project or entity is an "eligible generator".

7.7 The Eligible Generator Regulations set out what is meant by an "eligible generator" for the purposes of this direction, and this definition includes a project or entity who intends to establish an eligible generating station, such as a generating station connected to a complete CCS system.

7.8 Part 2 of this instrument intends to amend the Eligible Generator Regulations in order to ensure that a project or entity can be an "eligible generator" if they are altering an existing generating station into a generating station connected to a complete CCS system. This amendment is necessary to enable the Secretary of State to direct a CFD counterparty to enter into a DPA with projects who intends to retrofit an existing natural gas fuelled power station to fit CCS technology onto it and connect it to a complete CCS system. This means that both retrofit and newbuild power stations can be eligible for the DPA.

7.9 Part 2 of this instrument also adds words to the definition of a "complete CCS system" to contemplate non-pipeline transport methods. Non-pipeline transport involves transporting carbon dioxide from a CCS project to a T&S Network by a means other than a pipeline directly connecting the project to the network, this could include transport by road, rail or ship, and the language in the instrument has been left open to allow for different possible configurations. Although there is presently no policy on non-pipeline transport, the Department is of the view that non-pipeline transport is essential to ensure that CCS is an option to decarbonise projects which are not located directly within a CCUS cluster and cannot connect to the CCS cluster's CO_2 pipeline.

7.10 The CFDs which have previously been entered into under the Act have involved a difference payment between the wholesale electricity price and an agreed strike price. Following responses to a government consultation on CCS business models in 2019, the DPA has been designed with a different payment mechanism.

7.11 The proposed DPA will consist of two payments: an availability payment for low carbon generation capacity and a variable payment to adjust the position of the Power CCS plant in the merit order relative to an unabated reference plant.

7.12 An unabated reference plant is a gas fired power plant without CCS equipment. The addition of CCS equipment to a power plant increases operating costs, therefore it is currently cheaper for an unabated plant to generate a unit of electricity than for the same plant operating CCS equipment.

7.13 An availability payment is a monthly payment which is calculated according to a plant's performance and availability to dispatch electricity to the grid if required. It is not directly linked to the actual amount of electricity it produces but rewards the plant for being available when needed and capturing the level of CO_2 as required. It is intended to provide investors with certainty through a stable regular payment based on the availability of low carbon generation capacity.

7.14 The merit order, in the context of electricity generation, is the sequence in which power plants are designated to deliver power, from cheapest to most expensive.

7.15 A variable payment is a daily payment linked to the plant's generation of electricity, which pays the difference in the cost of generating power between the power plant receiving the payment and an unabated reference plant. This payment aims to adjust the position of the Power CCS plant in the merit order relative to an unabated reference plant, so that the Power CCS plant dispatches energy before unabated gas fired plants when zero carbon generators, such as wind, solar and nuclear power, are not producing enough power to meet demand.

7.16 The combination of these payments is intended to incentivise availability and enable a plant to operate flexibly, dispatching low carbon electricity to meet the energy market's needs.

7.17 Part 3 of this instrument amends the Allocation Regulations so that contracts which do not specify a strike price and a reference price can be contemplated. The provision will continue to apply as before to contracts which contain "strike price" and "reference price" however the language has been amended to accommodate situations in which a contract does not include a strike price and a reference price.

Explanations

What did any law do before the changes to be made by this instrument?

7.18 Before any changes to be made by this instrument, the Eligible Generator Regulations did not explicitly refer to non-pipeline transport in the definition of a complete CCS system.

7.19 The Eligible Generator Regulations also did not explicitly consider a project or entity to be carrying out a generating activity if they were retrofitting a generating station with carbon capture equipment fitted.

7.20 Before any changes to be made by this instrument the Allocation Regulations presumed that a strike price and a reference price would always be included in direct award contract for difference.

Why is it being changed?

7.21 The Eligible Generator Regulations are being changed to explicitly include non-pipeline transport in the definition of a complete CCS system to allow for the decarbonisation of generating stations which require non-pipeline transport to utilise CCS. Although the Eligible Generator Regulations did not previously explicitly

require that carbon dioxide was transported a pipeline, the additional language explicitly referring to non-pipeline transport is perceived as helpful by stakeholders.

7.22 The Eligible Generator Regulations are also being changed to explicitly allow a project or entity to be an eligible generator if they are retrofitting a generating station into a generating station connected to a complete CCS system. This is to ensure that existing generating stations on the electricity system have a route to decarbonisation through CCUS, which offers greater opportunities to utilise Power CCUS to decarbonise the electricity system.

7.23 The Allocation Regulations are being changed to ensure that there is no presumption of a strike price and a reference price in direct award contracts for difference. This allows for the DPA payment mechanism and future proofs this regulation for other potential future revenue support contracts which do not include these payment terms, and so allows the government to design business models more suited to the strategic aims of Power CCUS.

What will it now do?

7.24 The Eligible Generator Regulations will explicitly include non-pipeline transport in the definition of a complete CCS system.

7.25 The Eligible Generator Regulations will explicitly allow a project or entity to be an eligible generator if they are retrofitting a generating station into a generating station connected to a complete CCS system.

7.26 The Allocation Regulations are being changed to ensure that contracts which do not include a strike price and a reference price are contemplated in the Allocation Regulations.

8. European Union Withdrawal and Future Relationship

8.1 This instrument does not relate to withdrawal from the European Union / trigger the statement requirements under the European Union (Withdrawal) Act.

9. Consolidation

9.1 The government does not intend to consolidate this instrument with existing legislation at this time.

10. Consultation outcome

10.1 The policy set out in this instrument was subject to a 7-week consultation[10]. Carbon capture, usage and storage: amendments to Contracts for Difference regulations was published in July 2021 for stakeholders to provide feedback. This built on extensive, earlier publications on the DPA business model and principles of power CCUS.

10.2 16 responses were received to the July consultation. Over half of these responses were from businesses and organisations, including large multinationals and SMEs, directly involved in Power CCS. The remainder came from trade associations, non-governmental organisations and other interested parties.

[10] Consultation and response available here: https://www.gov.uk/government/consultations/carbon-capture-usage-and-storage-amendments-to-contracts-for-difference-regulations

10.3 Most respondents were supportive of the proposed amendment to the definition to include retrofit Power CCS projects alongside new build Power CCS projects.

10.4 Most respondents were supportive of the proposed wording change to allow for the payment mechanism under the DPA.

10.5 Many of the respondents were content that the current definition of a complete CCS system was inclusive enough of non-pipeline transport but were not opposed to an expansion of the definition to provide clarification if BEIS felt this was warranted.

10.6 A more detailed analysis of the consultation responses and outcome can be found in the Government Response to the consultation.

11. Guidance

11.1 The Government Response to the consultation informing this has been published. The Government Response sets out the views of stakeholders in response to the previously proposed policy positions and an explanation of the final policy decisions taken.

12. Impact

12.1 This legislation has little to no impact on business. The legislation applies to businesses seeking to apply for a DPA in respect of an eligible generating station. Applying for a DPA will be voluntary. There is no impact on charities or voluntary bodies.

12.2 There is no substantial impact on the public sector. The impact on the public sector is any change to the cost borne by Government in delivering their functions associated with the Dispatchable Power Agreement.

12.3 An Impact Assessment has not been prepared for this instrument because there is no, or no significant, impact on the public sector. The impact on the public sector is any change to the cost borne by Government in delivering their functions associated with the Dispatchable Power Agreement.

13. Regulating small business

13.1 The legislation does not apply to activities that are undertaken by small businesses.

14. Monitoring & review

14.1 Section 5(4) of the Energy Act 2013 requires the Secretary of State to, before 31st December each year, prepare and lay before Parliament a report setting out how he has carried out his functions under Part 2 of that Act (which includes the powers intended to be used to establish the DPA scheme).

15. Contact

15.1 Natasha Beedell at the Department for Business, Energy and Industrial Strategy Telephone: 07342085167 or email: natasha.beedell2@beis.gov.uk can be contacted with any queries regarding the instrument.

15.2 Chris Thackeray, Deputy Director for Power Carbon Capture, Usage & Storage, at the Department for Business, Energy and Industrial Strategy] can confirm that this Explanatory Memorandum meets the required standard.

15.3 Greg Hands MP at the Department for Business, Energy and Industrial Strategy can confirm that this Explanatory Memorandum meets the required standard.

Annex

Definitions

CCS	Carbon Capture and Storage (sometimes CCUS – carbon capture usage and storage, although this SI refers to CCS only).
DPA	The Dispatchable Power Agreement ("DPA"), which is the contract currently being designed for the Power Carbon Capture Storage (CCS) business model, is bespoke and based on the standard terms of the Contracts for Difference used in allocation rounds, subject to specific adjustments to ensure that it meets the requirements of Power CCS. The DPA is the contract that is intended to be used to encourage investment into Power CCS projects that are using primarily natural gas fired combined cycle turbines with carbon capture storage equipment fitted to ensure abated low carbon electricity generation.
Power CCS	Power carbon capture and storage, a gas fired power plant with additional equipment to capture the CO_2 produced when generating electricity, for transport to a permanent storage site.
Industrial CCS	Industrial carbon capture and storage, industrial facilities (eg. steel or cement factories, fertiliser or chemicals producers, refineries) with additional equipment to capture their CO_2 emissions, for transport to a permanent storage site.
Hydrogen CCS	Some (but not all) processes for producing hydrogen involve consumption of natural gas and consequential CO_2 emissions. Facilities undertaking these processes can be fitted with CCS equipment that can capture their CO_2 emissions for transport to a permanent storage site.
Availability Payment	The Dispatchable Power Agreement has within it a payment mechanism that breaks down into two payments. This is a monthly payment which is calculated according to a plant's performance and availability to dispatch electricity to the grid if required. It is not directly linked to the actual amount of electricity it produces but rewards the plant for being available when needed and capturing the level of CO_2 as required. It is intended to provide investors with certainty through a stable regular payment based on the availability of low carbon generation capacity.
Variable Payment	A daily payment linked to the plant's generation of electricity, which pays the difference in the cost of generating power between the power plant receiving the payment and an unabated reference plant. This payment aims to adjust the position of the Power CCS plant in the merit order relative to an unabated reference plant, so that the Power CCS plant dispatches energy before unabated gas fired plants when zero carbon generators, such as wind, solar and nuclear power, are not producing enough power to meet demand.
Unabated reference	A gas fired power plant without CCS equipment. The addition of CCS equipment to a power plant increases operating costs,

plant	therefore it is currently cheaper for an unabated plant to generate a unit of electricity than for the same plant operating CCS equipment.
CfD	The Contracts for Difference (CfD) scheme is the government's main mechanism for supporting low-carbon electricity generation. (https://www.gov.uk/government/publications/contracts-for-difference/contract-for-difference)
Cluster Sequencing Process	**The Cluster Sequencing Process** is the process concerned with establishing the sequence for groups of eligible 'emitter' projects (such as Power CCS projects and Industrial CCS projects) and the eligible transport and storage project, that together are referred to as 'clusters'. Carbon capture and storage is an interdependent process which requires coordination between CO_2 emitter projects and a connected CO_2 transport and storage network. There were multiple potential 'cluster' sites identified across the UK and so the cluster sequencing process was designed to run across multiple 'Tracks'. Track-1 is being executed across two phases. • In Phase-1, government received submissions from clusters, and provisionally sequenced those clusters which are most suited to deployment in the mid-2020s onto Track-1, in accordance with government's stated objectives. • In Phase-2, government received applications from individual projects across capture applications (industry, power, hydrogen) which could connect to the clusters sequenced onto Track-1 and the reserve cluster. Through this process, government intends to shortlist projects to proceed to the negotiations and due diligence stages. Further information is available here for Phase 1: https://www.gov.uk/government/publications/cluster-sequencing-for-carbon-capture-usage-and-storage-ccus-deployment-phase-1-expressions-of-interest Further information is available here for Phase 2: https://www.gov.uk/government/publications/cluster-sequencing-for-carbon-capture-usage-and-storage-ccus-deployment-phase-2
Merit Order	Merit order, in the context of electricity generation, is the sequence in which power plants are designated to deliver power, from cheapest to most expensive. In general, the electricity market price is determined by the point at which supply meets demand. For example, when demand for electricity is low, only the cheapest forms of electricity generation will be used. As demand for electricity increases, the price of

	power increases because more expensive forms of electricity generation are required. In other words, the cheapest forms of additional electricity generation should run before more expensive forms. It is currently cheaper for an unabated gas fired power plant (one without carbon capture storage equipment fitted) to generate a unit of electricity than the same plant operating with carbon capture storage equipment. Therefore, without the Variable Payment, a gas fired power plant without CCS equipment fitted would be likely to generate electricity more often than a gas fired power plant with CCS equipment fitted. With a Variable Payment, the plant (with CCS equipment fitted) should generate electricity more often than the unabated gas plant and therefore reduce the overall emissions being produced from the generation of electricity.