EXPLANATORY MEMORANDUM TO

THE CONTRACTS FOR DIFFERENCE (ELECTRICITY SUPPLIER OBLIGATIONS) (AMENDMENT) REGULATIONS 2024

2024 No. 1159

1. Introduction

1.1 This explanatory memorandum has been prepared by the Department for Energy Security and Net Zero and is laid before Parliament by Command of His Majesty.

2. Declaration

2.1 Minister Jones, Minister of State (Minister for Industry) at the Department for Energy Security and Net Zero confirms that this Explanatory Memorandum meets the required standard.

2.2 Ben Smith, Deputy Director for Power Carbon Capture Usage and Storage (CCUS), at the Department for Energy Security and Net Zero confirms that this Explanatory Memorandum meets the required standard.

3. Contact

3.1 Stephen Glenville at the Department for Energy Security and Net Zero, Telephone: +44 74429 46199 or email: PowerCCUS@energysecurity.gov.uk can be contacted with any queries regarding the instrument.

Part One: Explanation, and context, of the Instrument

4. Overview of the Instrument

What does the legislation do?

4.1 These Regulations are made using the powers under Section 6(8) of the Energy Act 2013, to enable future payments to power CCUS generators. These Regulations amend the Contracts for Difference (Electricity Supplier Obligations) Regulations 2014 ("Supplier Obligation Regulations").

4.2 The amendments enable a Contracts for Difference (CfD) counterparty to raise funds from licensed electricity suppliers to provide a payment to any agreed future gas power plants fitted with CCUS technology (power CCUS generators). The payment mechanism is located in Dispatchable Power Agreement CfD contracts designed for power CCUS generators to incentivise the provision of low carbon electricity generation capacity.

4.3 These Regulations make provision for a payment based on a generator's availability of electricity generation, the availability of carbon dioxide capture, the net dependable capacity (based on the net electricity generating capacity of a generator on a continuous and reliable basis, expressed in MW), as well as carbon dioxide transport and storage capacity and network charges faced by the Generator.

4.4 The Regulations retain the existing payment calculation for supplier contributions predicated on the amount of electricity generated whilst also enabling supplier contributions for payments that are informed on the amount of low carbon capacity

made available by a Generator, but not necessarily dispatched, in addition to other payment components.

4.5 These Regulations do not commit Government to awarding future financial support with any party or parties at this time but enable such agreements to be supported in the future. Any future decision to award support would be subject to successful negotiations with projects applying as part of the CCUS Cluster Sequencing process, and any subsequent processes thereafter. Any decision to award financial support would be contingent on the Government satisfying itself that it is compliant with relevant value for money, affordability, and subsidy control requirements.

Where does the legislation extend to, and apply?

4.6 The extent of this instrument (that is, the jurisdiction(s) which the instrument forms part of the law of) is England and Wales, Scotland and Northern Ireland.

4.7 The territorial application of this instrument (that is, where the instrument produces a practical effect) is the UK. Although the Regulations apply to the whole of the UK, Northern Ireland electricity suppliers are not subject to obligations to make payments to the CfD counterparty.

5. Policy Context

What is being done and why?

5.1 As the UK's Net Zero Strategy[1] sets outs, Carbon Capture, Usage and Storage (CCUS) has a key role in helping meet the UK's legally binding commitment to reduce greenhouse gas emissions to net zero by 2050. Power CCUS specifically can provide dispatchable generation to the electricity system with the potential to strengthen our energy security and reduce reliance on unabated fossil fuels. CCUS additionally represents a significant opportunity for the UK economy with the potential to support up to 50,000 jobs by 2030 and deliver £4.3 billion in Gross Value Added (GVA) by 2050 through exports.

5.2 In *Powering up Britain: Energy Security Plan*[2], published in March 2023, the previous government committed to deploying CCUS in two industrial clusters by the mid-2020s and four clusters by 2030, with the aim of capturing and storing 20-30 million tonnes of CO2 per year by 2030. *Powering Up Britain* additionally restated the ambition to implement the Dispatchable Power Agreement, a type of Contracts for Difference (CfD), to support power CCUS projects and support the deployment of at least one power CCUS plant by the mid-2020s. Beyond this, the current government intends to support multiple additional power CCUS projects by 2030, subject to storage constraints, value for money, and affordability, and anticipates further power CCUS deployment will be required beyond 2030 to contribute to securely and affordably decarbonising the power sector. Any decision to award financial support would be contingent on the Government satisfying itself that each individual project is compliant with relevant value for money, affordability and subsidy control requirements.

5.3 The Dispatchable Power Agreement (DPA) is the proposed contractual framework to provide a financial incentive for the deployment of power CCUS generators (natural

[1] Net Zero Strategy: https://www.gov.uk/government/publications/net-zero-strategy
[2] Powering up Britain publications: https://www.gov.uk/government/publications/powering-up-britain

gas-fired power plants fitted with carbon capture and storage technology[3] to provide non-weather dependent dispatchable low-carbon electricity). The DPA is based on CfD standard terms and conditions and has been iteratively developed since a consultation on potential models in July 2019, with subsequent business model updates in December 2020, May 2021, October 2021 and April 2022.

5.4 As a form of CfD, the DPA will utilise the electricity supplier obligation to fund payments to power CCUS generators. The principle of employing the Supplier Obligation levy to fund CfD schemes is long established, first consulted in November 2012 and formalised in the Energy Act 2013 and subsequent secondary legislation. After consulting on potential funding models for power CCUS in July 2019[4], the HMT Budget 2020 confirmed the intention to support the construction of power CCUS 'using consumer subsidies' and the HMT Budget 2023 confirmed government's intention to make up to £20 billion available to support for the early deployment of CCUS, including power CCUS. The commitment to deploy power CCUS was outlined again in the December 2020 Energy White Paper[5] and subsequent October 2021 Net Zero Strategy[1].

5.5 In contrast to standard CfDs, and due to the characteristics of gas-powered CCUS plants, the DPA proposes two payment mechanisms to support a power CCUS generator;

5.6 (i) an Availability Payment reflecting a generator's availability of electricity generation and carbon capture to incentivise dispatchable generation behind lower carbon sources of generation such as renewables and nuclear but ahead of unabated gas plants. The payment is based on a generator's availability of electricity generation, the availability of carbon dioxide capture, the net electricity generating capacity, as well as carbon dioxide transport and storage capacity and network charges faced by the Generator. The Availability Payment would provide a stable revenue stream for power CCUS generators with it reducing proportionately to reflect any reduced availability of electricity generation or carbon capture performance;

5.7 (ii) A Variable Payment to account for the additional costs of a generator running with CCUS technology. The Variable Payment would perform as a merit order correction payment in circumstances when the costs to generate electricity faced by a power CCUS generator are greater than that of an equivalent unabated plant. The Variable Payment is already enabled through the Contracts for Difference (Electricity Supplier Obligations) Regulations 2014.

5.8 In order to enable the DPA's Availability Payment, the Contracts for Difference (Electricity Supplier Obligations) Regulations 2014 require amendment. These amendments will insert provisions to enable a CfD counterparty, designated for the DPA as the Low Carbon Contracts Company (LCCC), to raise funds from electricity suppliers to pay an Availability Payment to CCUS Power generators. The Availability Payment will be based on a generator's availability of electricity generation, the availability of carbon dioxide capture, the net dependable electrical generation capacity of the facility, as well as carbon dioxide transport and storage capacity and

[3] Carbon Capture and Storage technology refers to the process of capturing CO2 generated from an industrial process and transporting this to a permanent storage site.
[4] Carbon capture, usage and storage (CCUS): business models consultation, September 2019: https://www.gov.uk/government/consultations/carbon-capture-usage-and-storage-ccus-business-models
[5] Energy white paper: Powering our net zero future: https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future

network charges, and the Regulations reflect this. This mechanism contributes to the government's ambition to decarbonise the electricity system by 2030, subject to security. The GB electricity system could require between 30 and 50GW of long duration flexibility by 2030 and the government's aim is for as much of this long-duration capacity as possible to be low carbon. [6].

5.9 To enable the decarbonisation of the electricity generated, power CCUS plants will be connected to a carbon dioxide transport and storage (T&S) network. This is the enabling infrastructure to carry the captured CO2 from the electricity generation process, as well as other emitter projects connected to the network, and transport the CO2 via pipeline (or other form of transport) to be safely store in offshore geological stores located several kilometres underneath the seabed. The DPA costs that are to be paid under the Supplier Obligation will include three fees for the transport and storage of CO2 that are "passed through" from the transport and storage company.

5.10 These T&S fees comprise of a flow charge (linked to the volume of CO_2 captured and passed onto the network for transport and storage), a capacity charge (based on the level of capacity required by an emitter regardless of the volume of CO_2 passed onto the network), and a network charge (based on the residual amounts of the proportion of Allowed Revenue recovered from the user, not covered by the flow charge or capacity charge).

5.11 The Flow charge will be paid to the T&S company by users of the Transport and storage network to reflect the costs transporting the captured CO2 for geological storage. Where capacity fees (storage capacity and network charges) arise, the costs will be paid by the power CCUS generator to the respective Transport and Storage network operator and recovered through the Availability Payment only. This model aims to manage the inherent risks associated with an emerging sector whilst providing investor confidence. As the capacity and network charges are paid whether a Generator dispatches electricity or not (and are not required for unabated gas power plants) they are incorporated into the Availability Payment to ensure power CCUS generators maintain a competitive yet mid-merit role and have a route to being 'low carbon'.

5.12 As is common within regulated networks, a process of mutualisation is proposed to address the over and under collection of allowed revenues by transport and storage companies from the users of its network. The aim of mutualisation is to retain flexibility as market conditions change whilst promoting investability. Mutualisation levels will reflect a user's network demand ensuring users pay their fair share of network usage and be proportionate to users' network connection size and network usage profile. The mutualisation contributions are reflected in the regulations as "transport and storage revenue shortfalls which arose on that day". The principles underpinning the T&S charges are mutualisation process are detailed in the T&S Business Model update[7] and the CCS Network Code: updated Heads of Terms[8].

[6] Review of electricity market arrangements (REMA) second consultation: https://www.gov.uk/government/consultations/review-of-electricity-market-arrangements-rema-second-consultation

[7] CCUS: an update on the business model for transport and storage - indicative heads of terms, found at: https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models

[8] Carbon capture and storage (CCS) Network Code: updated Heads of Terms: https://www.gov.uk/government/consultations/carbon-capture-and-storage-ccs-network-code-updated-heads-of-terms

What was the previous policy, how is this different?

5.13 The framework for Contracts for Difference is established in the Energy Act 2013. The Contracts for Difference (Electricity Supplier Obligations) Regulations 2014 established the mechanism to allow the CfD counterparty to raise funds from all licensed electricity suppliers in Great Britain to pay for the costs rising from the CfD scheme, and to return money to the consumer where appropriate. The 2014 regulations were laid ahead of the development of the power CCUS DPA business model and did not envision an availability based payment to power CCUS generators.

5.14 Power CCUS generators must meet the definition of an 'Eligible Generator' specified in the Contracts for Difference (Definition of Eligible Generator) Regulations 2014 and amended by the Contracts for Difference (Miscellaneous Amendments) Regulations 2022 to enable retrofit power CCUS projects to be eligible.

5.15 The policy change is to enable power CCUS project to receive the relevant funding under the newly created Dispatchable Power Agreement, which is a form of CfD but has several differences from other contracts awarded under the CfD scheme. This key difference is that this change will allow funds to be collected from electricity suppliers for the payment of availability of low-carbon electricity generating capacity, and for the payment of fees for the transport and storage of CO2, both of which are additions beyond the previous policy which only enabled the collection of funds for the payment of low-carbon electricity generation specifically.

6. Legislative and Legal Context

How has the law changed?

6.1 These Regulations are made using the powers under Section 6(8) of the Energy Act 2013, to enable future payments to power CCUS generators. These regulations amend The Contracts for Difference (Electricity Supplier Obligations) Regulations 2014 to enable a supplier obligation levy to be charged for the constituent parts of the Availability Payments under the power CCUS DPA.

6.2 Regulation 4 of the 2014 Regulations relates to the calculation of the electricity supplier's daily contribution to the CfD counterparty. This instrument amends Regulation 4(1), expanding the definition of generation payments (GP) and counterparty payments (CP) from the total amount of generation counterparty payments which the CfD counterparty is required to make in respect of electricity generation which occurred on that day, to additionally include electricity generation capacity which was made available on that day, transport and storage capital costs which arose on that day, carbon dioxide capture which occurred on that day, and transport and storage revenue shortfalls which arose on that day.

6.3 This instrument amends Regulation 4(2) to expand the definition of "generation counterparty payment" to include reference to calculation being related to the amount of electricity generation capacity made available, a fixed fee for the capital costs incurred by a transport and storage provider, the amount of carbon dioxide captured by a generating station, and a variable fee to cover transport and storage revenue shortfalls.

6.4 Regulation 7 of the 2014 Regulations set out the basis on which the CfD counterparty must estimate certain matters, such as the amount of money it believes it will require. This instrument amends Regulation 7 to ensure the CfD counterparty must additionally have regard to matters including the amount of capital costs of a transport

and storage provide, the amount of revenue shortfalls of a transport and storage provider and the amount of carbon dioxide captured.

Why was this approach taken to change the law?

6.5 This is the only possible approach to make the necessary changes.

7. Consultation

Summary of consultation outcome and methodology

7.1 The Amendments to Electricity Supplier Obligation Regulations to implement the power CCUS Dispatchable Power Agreement business model consultation was first published on 4 December 2023 and closed on 29 January 2024[9]. The consultation was reopened for an additional 28 days due to the consultation-stage Impact Assessment being incorrectly omitted when first published. The consultation reopened 12 March 2024 and closed 10 April 2024.

7.2 The Consultation comprised of two sections; Amending the Electricity Supplier Obligation Regulations to enable Availability Payments for DPA Generators, and T&S Regulatory Investment Revenue Model.

7.3 Electricity suppliers as well as industry, trade associations, academics and individuals with an interest in CCUS were contacted to ensure an awareness of the consultation and sufficient opportunity to respond. Responses to the consultation were submitted through an online response tool (Citizen Space) or by email. The consultation received 14 responses from 13 respondents, out of which five were from electricity suppliers, five were received from power generation operators or developers, and one each from an industry trade body and a consumer charity.

7.4 Devolved administrations were consulted at the point of consultation launch and were invited to provide feedback on the proposed regulations.

7.5 Respondents broadly agreed with the principle of electricity suppliers bearing the costs of the DPA through the levy under the Electricity Supplier Obligation Regulations 2014 as a way of deploying power CCUS. Electricity suppliers expressed the need to provide clear levy forecasting and supported the proposals for mutualisation. The government provided a response to the consultation responses noting the policy objectives and justifications and highlighting the intention to bring forward legislation to enable the amendments.

7.6 For further information on the consultation process please see *Carbon Capture, Usage and Storage: Amendment to Electricity Supplier Obligations Regulations: Government response to the consultation on the implementation of the Dispatchable Power Agreement business model*[10].

8. Applicable Guidance

8.1 No guidance is necessary regarding this instrument.

[9] Amendments to Electricity Supplier Obligation Regulations to implement power CCUS Dispatchable Power Agreement business model: https://www.gov.uk/government/consultations/amendments-to-electricity-supplier-obligation-regulations-to-implement-power-ccus-dispatchable-power-agreement-business-model

[10] Amendments to Electricity Supplier Obligation Regulations to implement power CCUS Dispatchable Power Agreement business model: https://www.gov.uk/government/consultations/amendments-to-electricity-supplier-obligation-regulations-to-implement-power-ccus-dispatchable-power-agreement-business-model

Part Two: Impact and the Better Regulation Framework

9. Impact Assessment

9.1 A full Impact Assessment is submitted with this memorandum and published alongside the Explanatory Memorandum on the legislation.gov.uk website.

Impact on businesses, charities and voluntary bodies

9.2 The Impact Assessment reviewed the cost-effectiveness of the implementation method for the financial mechanisms of the Dispatchable Power Agreement (DPA). This includes assessing the impact of the DPA counterparty being able to reliably draw and distribute the funds as calculated by the DPA business model.

9.3 The impact on business, charities or voluntary bodies is low. Energy suppliers would incur administrative costs to forecast payments and familiarise themselves with the DPA contracts. Energy generators in receipt of DPA contracts would face additional administrative costs from forecasting payments and familiarisation with the contracts.

9.4 Firms will pay an increased opportunity cost due to higher collateral obligations. The DPA model will increase the total value of the Interim Levy Rate (ILR). Therefore, suppliers will have to post more collateral.

9.5 For any new power generators or energy suppliers entering the market, establishing these relationships may incur some cost through familiarisation. We expect this to have minimal impact. Barriers to entry for firms may marginally increase by adding additional complexities to an incumbent relationship. It is anticipated that incumbent power generators and energy suppliers will face lower costs than entering firms due to familiarity with the LCCC.

9.6 The legislation does not impact small or micro businesses.

9.7 The impact on the public sector is low. The DPA counterparty (the LCCC) have estimated a £7.13m cost for establishing the framework needed for managing the DPA contracts across the first three years and a £3.45m annual administrative costs over the 15-year duration of a DPA contract. These costs have been adjusted for inflation. This results in a total cost across the 18 years as £44.1m.

10. Monitoring and review

What is the approach to monitoring and reviewing this legislation?

10.1 The approach to monitoring this legislation is through a wider monitoring and evaluation framework to track progress against the Sixth Carbon Budget and net zero targets. The DPA counterparty (the LCCC) currently records its operational costs and the value of payments collected. These figures will be used against the critical success factors to assess intervention effectiveness. These publications will be compared against the forecasted costs in this Impact Assessment.

10.2 The instrument does not include a statutory review clause and, in line with the requirements of the Small Business, Enterprise and Employment Act 2015.

10.3 Minister Jones, Minister of State (Minister for Industry) at the Department for Energy Security and Net Zero has made the following statement has made the following statement:

"In my view the provisions of The Contracts for Difference (Electricity Supplier Obligations) (Amendment) Regulations 2024 do not require a review clause as they

are exempt under section 28(3)(c) of the Small Business, Enterprise and Employment Act 2015."

Part Three: Statements and Matters of Particular Interest to Parliament

11. Matters of special interest to Parliament

11.1 None.

12. European Convention on Human Rights

12.1 Minister Jones, Minister of State (Minister for Industry) at the Department for Energy Security and Net Zero has made the following statement regarding Human Rights:

"In my view the provisions of The Contracts for Difference (Electricity Supplier Obligations) (Amendment) Regulations 2024 are compatible with the Convention rights."

13. The Relevant European Union Acts

13.1 This instrument is not made under the European Union (Withdrawal) Act 2018, the European Union (Future Relationship) Act 2020 or the Retained EU Law (Revocation and Reform) Act 2023 ("relevant European Union Acts").