



Department for
Business, Energy
& Industrial Strategy

Evaluation of the Contracts for Difference Scheme

Phase 2: Allocation Round 3

Executive Summary

November 2020

Executive Summary

Introduction

The Department for Business, Energy and Industrial Strategy (BEIS) commissioned Technopolis Group Ltd, in partnership with LCP Ltd, to undertake a process and impact evaluation of the Contracts for Difference (CfD) scheme. This report presents a summary of key findings from Phase 2 of the evaluation, which assessed the extent to which the CfD Allocation Round 3 (AR3) met its intended objectives. Prior to this report a separate CfD Evaluation Phase 1 report assessed the two previous Allocations Rounds (AR1 and AR2).

Background to the CfD scheme

The Energy Act (2013)¹ implemented regulations to enable the CfD scheme to meet a range of Electricity Market Reform (EMR)² programme objectives.

CfDs aim to give developers a higher level of confidence and certainty to invest in low carbon electricity generation by agreeing to a fixed price for the sale of electricity. Generators are awarded a 15-year CfD which guarantees additional revenue to developers when the wholesale market price, the “reference price”, is below the “strike price”, which is a measure of the cost of investing in a renewable electricity technology. When the reference price is higher than the strike price, developers are required to make payments back to the counterparty, the Low Carbon Contracts Company (LCCC). The CfD scheme aims to reduce developers’ risks by providing more certainty in revenue and to support investment in a wide range of renewable technologies with different levels of maturity.

So far, three Allocation Rounds have been held (in 2014/15, 2016/17, and 2019) and these have awarded contracts to fifty renewable electricity development projects in total.

Evaluation Aims and Methods

The evaluation aims to assess the extent to which the CfD scheme is on track to meet its objectives, and the effectiveness of delivery processes to inform policy development around ways to improve the delivery of future allocation rounds.

Primary research interviews with scheme participants and wider stakeholders formed a key component of the data collection for the evaluation of AR3. Stakeholder groups interviewed include: developers of renewable electricity generation projects (with and without a CfD), financial institutions and renewable energy sector trade bodies. Representatives of all twelve generation units that won a CfD at AR3 were successfully recruited and interviewed. However, due to implications of the Covid-19 pandemic, research interviews with other stakeholders were stopped before the full number of intended interviews with these groups was achieved. For more details on the approach to sampling, recruitment and methods used in the evaluation, see Annex A of the main report.

¹ <https://www.legislation.gov.uk/ukpga/2013/32/contents/enacted>

² Implementing Electricity Market Reform. DECC. 2014. See: <https://www.gov.uk/government/publications/implementing-electricity-market-reform-emr>

Overview of Allocation Round 3

As shown in Table 1, the generation capacity awarded in AR3 will equate to 5.78GW by 2027, which could power more than seven million UK homes. The majority of capacity awarded will come from Offshore Wind which amounts to around 5.5GW out of 5.8GW in total (95%). Four Remote Island Wind (RIW) projects won a CfD (275 MW in total), and Advanced Conversion Technologies (ACT) developers were awarded two contracts with around 34 MW in total.

The majority of AR3 CfD capacity is expected to come online between 2024 and 2026. Between 2024 and 2026 more than 1.5 GW will come online each year. All awarded CfD projects signed their CfD contracts in October 2019 and at the time of writing, none have been terminated. All capacity is currently on track to be delivered by 2027.

Assessment of Value for Money

To answer the evaluation question “*Does the CfD scheme represent good value for money?*”, the analysis uses the BEIS Dynamic Dispatch Model (DDM). The analysis compares the costs of supporting low-carbon deployment through the CfD regime to a counterfactual assuming the RO policy had continued.

The reduction in costs to the consumer due to the CfD projects auctioned in AR1, AR2 and AR3 is estimated at around **£3bn** (higher and lower demand reference case, present value terms) in comparison with supporting the same projects under the RO. The scenarios tested produced upper and lower bound estimates of **£2bn and £5bn**. The modelling covers the period from 2016 (when the first CfD projects came online) to 2050.

The lower support costs under the CfD regime are primarily driven by the lower hurdle rates assumed compared to under the RO. With up to 85GW of projected future CfD projects (excluding nuclear) also included prior to 2050, the total potential consumer cost savings of the CfD regime through to 2050 (including AR1, AR2, AR3 and projected future supported projects) are estimated at around £10bn (higher and lower demand) compared to the RO, with a range of £5bn to £16bn in the scenarios tested.

Impact of CfDs on Attracting Finance and Lowering Costs of Renewables

Responses from interviewed investors and developers support the scheme’s theory of change that the CfD fifteen-year price stabilisation mechanism contributes to lowering the costs of capital for developers. The CfD scheme reduces risks for developers and their investors, which contributes towards reducing hurdle rates and costs of capital. This in turn supports overall cost reduction for consumers. Respondents estimated that, in comparison to the RO, the CfD led to a reduction in hurdle and interest rates of up to 200 basis points³ (2 percentage points).

Responses to interviews also support the programme theory that the CfD scheme contributed towards attracting new investors to the UK renewables sector, enabling investment deals that would not happen in a scenario of merchant price exposure. The increased competition among financial investors further contributes to reductions in interest and hurdle rates.

Although respondents attributed cost reductions to the price stabilisation mechanism provided by CfD, they also highlighted the difficulty in isolating the precise size of the effect in reducing overall costs from broader trends, such as the competitive nature of auctions, technology

³ Basis points refers to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01%, and is used to denote the percentage change in a financial instrument.

maturity, cost reduction through innovation, and wider macro-economic trends, such as reduced rates of return from other sectors and markets.

The impact of the CfD scheme in supporting investment and cost reduction in Offshore Wind was described by developers as its main success. The extent to which the CfD scheme has increased investment in other technology sectors varied according to the level of opportunity available to those technologies to be allocated a contract and whether they can compete on cost with Offshore Wind. For example, developers focused on marine, ACT and other bioenergy technologies emphasised that introduction of the CfD scheme was followed by decline in investment in these renewable energy technologies, compared with the previous RO regime.

Risks to Delivery

The evaluation explored developers' views on risks to project delivery. Although the CfD has been successful in reducing market risk for those that have been awarded contracts, AR3 projects face certain delivery risks. Some risks are context specific to specific technologies (such as securing transmission links for Remote Island Wind (RIW)), while others are generic to the overall portfolio (such as the challenge of reaching Final Investment Decisions (FID) whilst a Judicial Review (JR) of AR3 was ongoing).

At the time of research fieldwork, a decision on the outcome of the JR was still pending. This presented a difficulty for projects to reach financial close and to commission development work to progress towards their Milestone Delivery Dates (MDDs). However, the JR was withdrawn in March 2020 (subsequent to fieldwork completion). All AR3 projects were granted a 6-month extension to their MDD, Target Commissioning Window (TCW) and Longstop Date milestones.

All RIW projects are still subject to Ofgem's approval of transmission links from the islands to the UK mainland. Not enough CfD capacity was awarded to meet the minimum capacity thresholds required for Ofgem to approve the respective transmission links on either the Western Isles or on Orkney. Potential changes to Transmission Network Use of System (TNUoS) charges presents an additional risk factor for RIW and these may influence their FID.

Application and contract award processes

The majority of developers (successful and unsuccessful) found the application process reasonably straightforward, with sufficient and clear information provided in advance. However, some felt the application process was too tailored towards Offshore Wind projects and that the application process would benefit from additional technology-specific guidance.

The new LCCC online portal website, introduced in 2018 in advance of AR3, was viewed as a positive step to streamlining communications. However, respondents expressed some uncertainty over which of the delivery partner organisation's websites is the best source of information.

After winning bids have been selected, successful applicants must fulfil a set of conditions within ten business days as part of the Initial Conditions Precedent. Many developers reported this stage of the process as being a challenge, due to the short timescale allocated for gathering the necessary documentation and obtaining advice of external legal counsel.

Views on Scheme Design and Future Changes

Overall, developers feel that a continuation of the CfD scheme is necessary to meet targets on electricity decarbonisation. Relying purely on a merchant-based business model for new build generation, or Corporate Power Purchase Agreements (PPA) was viewed as insufficient for developing new build generation at the large scale required to meet clean energy targets.

Developers expressed mixed views towards the concept of a ‘price floor’⁴ model. Support for this was dependent on how the price of the floor was set and how such a scheme would work in practice.

There were significant trade-offs between contract length and strike prices. Overall, longer contracts were preferred, and shorter contracts would require higher strike prices to mitigate against the potential shortfall in revenue across the timeframe of the contract, which underpins the business case for investment decisions.

Developers’ opinions varied on contract award selection criteria. Some believed that wider socio-economic and environmental benefits should be considered (such as the contribution of the project to local economic growth or recycling of waste) but others felt these may be difficult to fairly assess across projects.

Conclusions

This evaluation of the CfD scheme has aimed to assess the extent to which the introduction of the CfD scheme had met its core objectives. These objectives include: giving investors the confidence they need to invest in UK renewable energy projects; and, to attract greater investment at a lower cost of capital and from a wider pool of sources. The CfD scheme aims to support increased supply of renewable electricity, whilst delivering value-for-money for consumers.

When compared against the RO, the evidence from this evaluation suggests the CfD scheme is meeting the above objectives. Interviews with developers and investors provided strong support for the CfD scheme’s theory of change; whereby the offer of a fifteen-year price stabilisation contract reduced risks for investors by reducing exposure to wholesale price volatility, which then lowered hurdle rates for developers. This was reported to have increased access to the provision of finance from a wider pool of investors, resulting in competition among lenders and more attractive interest rates being offered. CfDs play an important role in enabling finance deals that would not happen otherwise.

The competitive nature of auctions was highlighted as an important driver for reducing strike prices. Additionally, wider macro-economic factors, such as lower interest rates in international markets have contributed towards attracting financial investors to invest in the UK renewables sector (for Offshore wind at least). Finally, as more CfD projects have been implemented over time, investors have become more comfortable with the risks, attracting yet more investor institutions and offering more attractive rates.

The impact of the CfD scheme in supporting investment and cost reduction in Offshore Wind was seen by developers as its main success. However, the extent to which the CfD scheme has increased investment in other technology sectors has varied according to the level of

⁴ Price Floor Model -a hypothetical model of support payments whereby generators are guaranteed protection against price drops below a minimum ‘floor price’, but allow generators to benefit from an uptick in power prices once any top-up payments have been repaid.

opportunity available to those technologies to be allocated a contract, and their ability to compete on cost with Offshore Wind.

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

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