



Department for
Business, Energy
& Industrial Strategy

CONTRACTS FOR DIFFERENCE AND CAPACITY MARKET SCHEME UPDATE 2017



Contracts for Difference and Capacity Market Scheme Update 2017

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2013

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Executive summary

1. This is the fourth Annual Update on progress made by the policy mechanisms implemented under the Electricity Market Reform (EMR) programme which closed in 2015. The key mechanisms are Contracts for Difference (CfDs) and the Capacity Market, designed to incentivise the investment required in the UK's energy infrastructure and to deliver low carbon energy and reliable supplies, while minimising costs to consumers.
2. This document sets out the headline achievements over the past 12 months in the following areas:
 - **Contracts for Difference**, enabling investment in low carbon electricity generation;
 - **The Final Investment Decision Enabling for Renewables** process supported projects facing investment hiatus ahead of the implementation of EMR;
 - **The Capacity Market** to ensure sufficient reliable capacity during periods of system stress;
 - **The Electricity Demand Reduction (EDR)** pilot, which provides financial support to organisations for the delivery of enduring electricity capacity savings at peak times.

Key progress since the 2016 update

3. The second CfD Allocation Round completed in September 2017 and led to sixteen contracts being signed for ten projects, representing over 3GW of new renewable generation capacity to commission from 2021/22 onwards. The new projects, which consist of three offshore wind farms each having three phases, alongside five Advanced Conversion Technologies and two Dedicated Biomass with Combined Heat and Power projects, will result in enough renewable electricity to power over 3 million homes.
4. The third main Capacity Market auction was successfully concluded in December 2016 (for delivery in 2020/21), securing 52.4GW of capacity at a clearing price of £22.50. Almost 70GW of capacity entered the auction, of which 75% received capacity agreements. The total forecast cost of capacity agreements awarded in this auction is £1.18b (in 2016 prices).
5. The second of two Transitional Arrangements (TA) auctions, targeting demand-side response (DSR), was completed in March 2017 securing around 312MW of capacity for delivery in 2017/18 at a clearing price of £45.00.
6. Following the decision in 2016 to bring forward the start of the Capacity Market by a year, the Supplementary Capacity Auction, or "early auction", was held in January 2017 (for delivery in 2017/18). The auction secured 54.4GW of capacity at a clearing price of £6.95/kW. 59.3GW of capacity entered the auction, of which over 90% received capacity agreements. The total forecast cost of Capacity Agreements awarded in this auction is £380m (2017 prices).

7. The first phase of the Electricity Demand Reduction Pilot Scheme led to funding of £1.28m being awarded in the January 2015 auction to a variety of public and private organisations to deliver electricity savings of 5,589kW of winter peak capacity by installing more efficient equipment. Phase I projects installed equipment and delivered savings over the 2015/2016 winter peak¹. In the second phase, £4.74m of funding was awarded in the January 2016 auction to deliver electricity savings of 23,307kW of winter peak capacity. These projects will deliver over either the 2016/2017 or 2017/2018 winter peaks.

¹ 1st November 2015 to 29th February 2016

Contracts for Difference Scheme

Deliverable	Achieved	When
Details about second CfD Allocation Round announced	✓	Nov 2016
The Contracts for Difference (Allocation) (Excluded Sites) Amendment Regulations 2016 came into force	✓	Dec 2016
Second CfD Allocation Round Framework Published	✓	Mar 2017
Second CfD Allocation Round opens	✓	Apr 2017
Second CfD Allocation Round results announced	✓	Sept 2017
Second CfD Allocation Round contracts signed	✓	Oct 2017

Introduction

1. A Contract for Difference (CfD) is a private law contract between a low carbon electricity generator and the Low Carbon Contracts Company (LCCC, the CfD Counterparty) a Government-owned company. A generator party to a CfD is paid the difference between the 'strike price' – a price for electricity reflecting the cost of investing in a particular low carbon technology – and the 'reference price' – a measure of average GB market price for electricity. CfDs give greater certainty and stability of revenues to electricity generators by reducing their exposure to volatile wholesale prices, whilst protecting consumers from paying for higher support costs when electricity prices are high.

CfD Second Allocation Round

2. In March 2017, the details about the second CfD Allocation Round were confirmed via a series of [statutory notices](#)², the publication of the [Allocation Framework](#)³ applicable to the round and the final [Contracts for Difference Standard Terms and Conditions](#)⁴. The budget was set at £290 million (2011/12 prices) for projects starting to generate electricity in either 2021/22 or 2022/23.
3. The allocation round was held for the group of less established technologies, which is made up of:

² "Second CfD Allocation Round – Statutory Notices", published on 13 March 2017 on the Gov.uk website

³ "Contracts For Difference: Allocation Framework for the 2017 Allocation Round", published on 13 March 2017 on the GOV.uk website

⁴ "Contracts for Difference: standard terms and conditions, version 2, March 2017", published on 13 March 2017 on the Gov.uk website

- Offshore Wind
- Advanced Conversion Technologies (with or without Combined Heat and Power (CHP))
- Anaerobic Digestion (with or without CHP)
- Dedicated biomass with CHP
- Wave
- Tidal Stream
- Geothermal (with or without CHP)

4. The administrative strike prices applicable to applications in the second Allocation Round are shown in [Table 1](#)⁵:

Table 1: CfD Draft Administrative Strike Prices (£/MWh, 2012 prices)

Technology	2021/22	2022/23
Offshore wind	105	100
Advanced Conversion Technologies (with or without CHP)	125	115
Anaerobic Digestion (with or without CHP) (>5MW)	140	135
Dedicated Biomass with CHP	115	115
Wave	310	300
Tidal Stream	300	295
Geothermal	140	140

5. A cumulative maxima of 150MW (equivalent to a budget maxima of £70 million) was applied in respect of the fuelled technologies: Dedicated Biomass with CHP; Advanced Conversion Technologies; and Anaerobic Digestion.
6. The second CfD Allocation Round opened for applications in April 2017 and, in line with scenario one as set out in the [Implementation Plan](#)⁶, National Grid, in their role as the EMR delivery body, invited sealed bids from qualifying applicants from 14 to 18 August. Following an independent audit, [the results](#)⁷ were announced on 11 September. Of the eleven successful projects, ten have signed 15 year contracts with [the LCCC](#)⁸ worth approximately £176 million per year. Together these projects could deliver at least 3.3GW of renewable electricity, enough to power an estimated 3.6 million homes.
7. The competitive approach in the auction has continued to drive down the costs of renewable electricity. For example, two offshore wind projects were awarded contracts with a strike price of £58/MWh, around half the strike price for offshore wind in the first competitive auction held in 2015. Significant cost savings have also been achieved by

⁵ See draft budget noticed published on 9 November 2016 on gov.uk website.

⁶ "CfD Implementation Plan – Round 2 - Indicative dates for processes leading to CfD Allocation in 2017", published by the Low Carbon Contracts Company on 13 March 2017 and available on the LCCC website.

⁷ A Contracts for Difference (CfD) Second Allocation Round Results published on the Gov.uk website

⁸ LCCC press notice available on the Low Carbon Contracts Company(LCCC) website

other technologies, with successful bids using Advanced Conversion Technologies and Dedicated Biomass with CHP. Competition has also driven down the costs for consumers, with over 3GW of new capacity delivered in the second auction costing up to £528 million per year less than would have been the case in the absence of competition.

Changes to the CfD scheme

Contract and regulatory changes

8. Generators who were successful in the second Allocation Round have signed contracts based on [revised CfD Standard Terms and Conditions](#) published on 13 March 2017⁹. The revised CfD contract terms incorporate changes introduced following a public consultation held in 2016.
9. The main changes prevent generators being over-compensated by cumulating National and European Union aid by amending the definition of ‘foreseeable change in law’ principally to clarify what situations are ‘foreseeable’ and accordingly do not result in compensation to generators, clarifying how electricity storage should be treated on CfD sites and, in addition, make a number of minor and technical changes to improve the operation of the CfD scheme.
10. The [Contracts for Difference \(Standard Terms\) \(Amendment\) Regulations 2017](#)¹⁰, which gave Government powers to implement a number of the changes made to the CfD contract, came into force on 1 March 2017. Government published [the consultation response](#) on 8 February 2017¹¹.

The Non-Delivery Disincentive

11. The [Contracts for Difference \(Allocation\) \(Excluded Sites\) Amendment Regulations 2016](#) came into force on 15 December 2016¹² and amend the non-delivery disincentive provisions in the CfD legislation. The non-delivery disincentive policy is intended to incentivise applicants who have been successful in the allocation process to sign the CfD offered to them, and to minimise the risk that those who enter into a CfD failing to deliver the project. This is intended to prevent an inefficient allocation of the Levy Control Framework budget and to deter speculative applications. The Amendment Regulations extend the exclusion period to 24 months and make some additional technical changes.

⁹ The revised CfD Standard Terms and Conditions published on the Gov.uk website

¹⁰ The Contracts for Difference (Standard Terms) (Amendment) Regulations 2017 published on the legislation.gov.uk website

¹¹ Government response to consultation on amending the CfD contract and regulations published on the Gov.uk website

¹² The Contracts for Difference (Allocation) (Excluded Sites) Amendments Regulations 2016 published on legislation.gov.uk website

Status of current CfD contracts

12. The last update mentioned that the LCCC had issued a notice terminating the contract for Neart na Gaoithe, a 448MW offshore wind farm owned by Mainstream. [The generating station's contract was reinstated](#) in March 2017 following arbitration undertaken in accordance with the processes for dispute resolution set out in the CfD contract.¹³
13. In July 2017, Triangle Farm Solar Park, a 12MW solar project in Cambridgeshire, became the second project supported by the CfD scheme to begin generating power. Four projects have commissioned under the Financial Investment Decision Enabling for Renewables process since the last update was published. Information on all of the CfD projects managed by the LCCC is published on their [CfD Register](#)¹⁴.

Potential future changes to the CfD scheme

14. In its [Clean Growth Strategy](#)¹⁵ published on 12 October this year, Government confirmed that up to £557 million would be available for the next clean electricity auctions for less established renewable technologies, such as offshore wind, with the next auction planned for spring 2019.
15. Government is considering making changes to the CfD scheme which will enable it to continue to support new low carbon generation while providing the best value for bill payers in the years ahead, and to support, subject to State aid approval, the development of remote island wind projects, including in Scotland, where they are expected to directly benefit local communities. The Government expects to consult on proposed changes to the CfD in due course.

Call for evidence on fuelled and geothermal technologies

14. On 9 November 2016 the government launched a [call for evidence](#) on geothermal and fuelled technologies in the CfD Scheme¹⁶. This call for evidence sought views on how the scheme should treat fuelled technologies in future, beyond the second Allocation Round. At the same time, the Government set out that it would apply a 150MW maximum on fuelled technologies within the CfD scheme (equivalent to a budget maximum of £70 million). It also sought evidence on geothermal project costs to inform development of the strike price for this technology for the second Allocation Round. The call for evidence closed on 20 December 2016.

¹³ Press notice announcing the outcome of arbitration between LCCC and Neart na Gaoithe (NNG) published by the LCCC and available on the LCCC website.

¹⁴ LCCC CfD Register

¹⁵ Press release on the Clean Growth Strategy published on the Gov.uk website. <https://www.gov.uk/government/news/government-reaffirms-commitment-to-lead-the-world-in-cost-effective-clean-growth>

¹⁶ A call for evidence on fuelled and geothermal technologies in the Contracts for Difference published on the Gov.uk website.

15. The [Government response on geothermal technologies](#) was published on 13 March 2017¹⁷, and set the administrative strike price for this technology at £140/MWh for both delivery years of the second Allocation Round.

Northern Ireland

16. A final decision on whether Northern Ireland should become part of a UK-wide CfD is a matter for the Northern Ireland Executive. No decision has yet been taken.

International CfDs

17. The Government is continuing to consider the option of extending the CfD scheme to renewable electricity projects located outside Great Britain but connected to the electricity systems of Great Britain. No decision has yet been made on taking this option forward, nor what the timescale for implementation might be.

The CfD Supplier Obligation

18. CfDs are funded through a levy on all licensed electricity suppliers in Great Britain: the CfD supplier obligation (SO). Under the SO, suppliers must make prepayments consisting of a fixed per unit charge, the 'Interim Levy Rate' (ILR) and a lump sum quarterly payment (individual supplier 'Reserve Payments'). The sum of the individual supplier Reserve Payments is the Total Reserve Amount (TRA). The TRA and ILR are set on a quarterly basis by the LCCC and published at least a quarter in advance. Each supplier's prepayments and their actual share of CfD costs are reconciled 12 working days after the end of the quarterly obligation period to which they relate.
19. The SO became chargeable in April, 2015. Suppliers are exempt from paying for the SO for imported renewable electricity generated in another EU member state.
20. Since the last update, the [Electricity Supplier Obligations \(Amendment and Excluded Electricity\) \(Amendment\) Regulations 2017](#)¹⁸ have been approved by Parliament and came into force on 31 October 2017. These regulations exempt suppliers from operational cost payments on up to 85% of electricity that is supplied to Electricity Intensive Industries.

Supplier Obligation changes for 2017

21. In 2016, Government consulted on a set of changes to improve [the efficiency and transparency of the SO](#)¹⁹. [The first set of regulatory changes](#) came into effect in April

¹⁷ The government response to the call for evidence on geothermal in the Contracts for Difference (CfD) Scheme is available on the Gov.uk website.

¹⁸ Legislation establishing an exemption for Energy Intensive Industries from up to 85% of the costs of CfDs is available on [legislation.gov.uk](#).

¹⁹ The Supplier Obligation: Government's response to the consultation on improving efficiency and transparency

2016 and the second set of changes came into force in April 2017²⁰. The most significant change in 2017 is that over-collected funds are now returned to suppliers 12 working days after the end of a quarter, bringing forward the return of cash by almost three months.

Table 2: Supplier Obligation charges

	Interim Levy Rate (£/MWh)	Total Reserve Amount (£)
Q1 2017	£0.956 MWh	£3.507m
Q2 2017	£1.513/MWh	£30.932m
Q3 2017	£1.553/MWh	£34.316m
Q4 2017	£2.517/MWh	£0

Update on areas outside the generic CfD scheme

Tidal lagoons

22. In February 2016 the Government launched an independent review of tidal lagoons to consider their potential strategic role in the UK. The review, led by Charles Hendry, [published its final report](#)²¹ to Government in January 2017. The review's Terms of Reference required it to assess the strategic case for tidal lagoons. Specifically the review considered:

- an assessment of whether, and in what circumstances, tidal lagoons could play a cost effective role as part of the UK energy mix;
- the potential scale of opportunity in the UK and internationally, including supply chain opportunities;
- a range of possible structures for financing tidal lagoons;
- different sizes of projects as the first of a kind; and
- whether a competitive framework could be put in place for the delivery of tidal lagoon projects

23. The Government is considering how tidal lagoon power delivers against the government's priorities for security of supply, low carbon generation and affordability. This will ensure that the response to the Hendry review takes into account the best interests of the UK as a whole and represents value for money to the consumer. A Government response to the Hendry review will be published in due course.

²⁰ The Electricity Supplier Payments (Amendments) Regulations and accompanying Explanatory Memorandum

²¹ The Hendry review into the strategic role of Tidal Lagoons in the UK

Final Investment Decision Enabling for Renewables (FiDeR)

24. The aim of the FiDeR process was to support projects facing investment hiatus ahead of the implementation of the wider Electricity Market Reform programme.
25. Eight renewable electricity projects were awarded Investment Contracts (effectively a form of early CfDs) in 2014. The UK received State aid approval for the Drax Unit #1 coal-to-biomass conversion in December 2016, after the last update was published, meaning that the European Commission has now awarded State aid approval to all eight projects that were successful in the process.
26. The Drax Unit #1 project started generating under the CfD scheme in December 2016. It was followed in autumn 2017 by Burbo offshore wind farm and all three phases of the Dudgeon offshore wind farm.

Carbon Capture Usage and Storage

27. The Government's stated ambition is to develop the strategic option to cost-effectively deploy carbon capture, usage and storage (CCUS) at scale during the 2030s. The Clean Growth Strategy sets out steps the Government will undertake towards this, including:
 - Review of the investment and delivery model for CCUS, to establish whether business models other than the CfD may better address commercial challenges;
 - Review of the future role and value of CCUS generation capacity to the energy system, including assessing the suitability of using the CfD for dispatchable and base load power;
 - Establish a CCUS Cost Challenge Taskforce, to deliver a plan to reduce the cost of deploying CCUS;
 - Set out a deployment pathway for CCUS during 2018.

Hinkley Point C

28. As noted in last year's update, on 29 September 2016 the Government signed a Contract for Difference for Hinkley Point C, the first new nuclear plant in the UK for more than 20 years²².
29. Hinkley Point C will provide 3.2GW of secure, base-load, low carbon electricity for at least 60 years, meeting around 7% of the UK's energy needs and powering nearly 6 million homes. It will boost both the local and national economy, providing 26,000 jobs and apprenticeships during construction, and 900 jobs once running.
30. The strike price agreed was £92.50/MWh. Consumers will only pay when Hinkley Point C is providing low carbon electricity. The Department's value for money test shows that going ahead with Hinkley leads to the lowest additional bill increase out of the

²² Available at: <https://www.gov.uk/Government/publications/hinkley-point-c-documents>

alternative technologies able to decarbonise the power sector. Payments under the contract will represent around £12 on the average household bill over 2026 – 2030. Payments under the contract will represent around £12 on energy bills in 2030.

Closure of the Renewables Obligation

31. As part of the transition to the more cost effective and competitive CfD support mechanism, the Renewables Obligation closed to new generating capacity from 1 April 2017.
32. Some exceptions to the closure will allow certain projects to deploy in certain circumstances up to 31 January 2019 in Great Britain and 31 March 2019 in Northern Ireland²³. Most accredited projects will receive support for 20 years, with all support ending in 2037.
33. Since its introduction in 2002, over 23,500 generating stations have been accredited under the Renewables Obligation, comprising 25GW of installed capacity. The scheme has played a key part in increasing the proportion of UK electricity generated from renewables from just above one percent in 2002 to 24.5% in 2016.²⁴

²³ Details of exceptions (grace periods) and the evidence required to demonstrate eligibility can be found in [Ofgem's guidance on RO closure](#)

²⁴ Source: [Energy Trends \(June 2017\)](#)

Capacity Market

Introduction

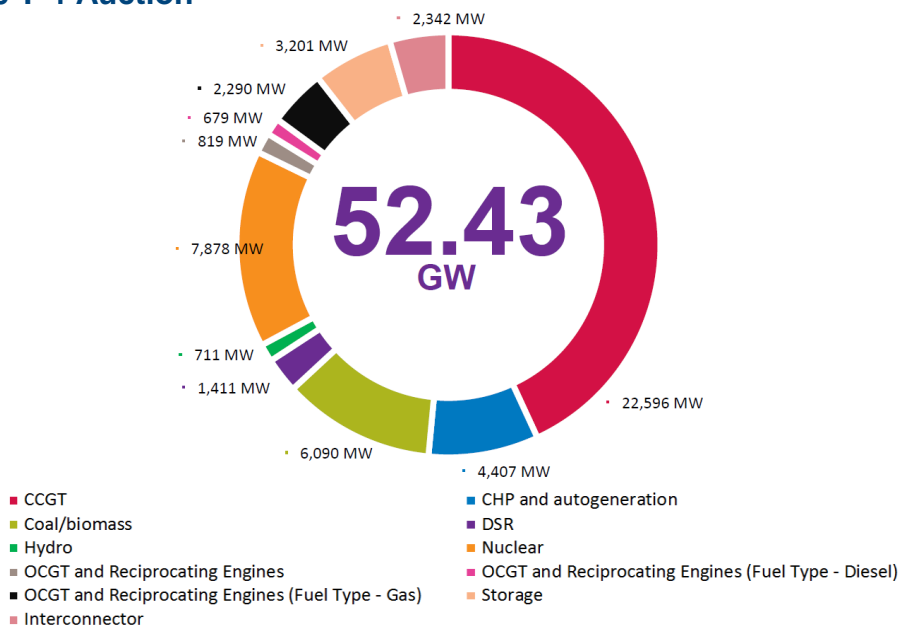
Deliverable	Achieved	When
Capacity Market 2015 T-4 auction opened	✓	8 Dec 2015
Capacity Market 2015 T-4 auction results published	✓	22 Dec 2015
Capacity Market 2016 Transitional Arrangements auction opened	✓	26 January 2016
Capacity Market 2016 Transitional Arrangements auction results published	✓	8 February 2016
Secretary of State published Auction Parameters for Capacity Market 2016 T-4 auction and 2017 Transitional Arrangements auction	✓	8 Jul 2016
Final revised Capacity Market Rules published	✓	15 Jul 2016
The Electricity Capacity (Amendment) Regulations 2016 made	✓	21 July 2016
Prequalification for Capacity Market and Transitional Arrangement auctions opened	✓	1 Aug 2016
Prequalification results day	✓	23 Sep 2016
The Capacity Market (Amendment) (No.3) Rules 2016	✓	21 Nov 2016
Capacity Market 2016 T-4 auction opens	✓	06 Dec 2016
Capacity Market 2016 T-4 auction results published	✓	16 Dec 2016
Capacity Market Early Auction opens	✓	31 Jan 2017
Capacity Market Early Auction results published	✓	24 Feb 2017
Capacity Market 2017 Transitional Arrangement auction opens	✓	22 Mar 2017
Capacity Market 2017 Transitional Arrangement results published	✓	12 Apr 2017
Capacity Market (Amendment) Rules 2017 and Capacity Market (Amendment) (No2) Rules 2017 published	✓	14 July 2017
Capacity Market 2018/19 T-1 auction opens	On track	30 Jan 2018
Capacity Market 2021/22 T-4 auction opens	On track	6 Feb 2018

1. The Capacity Market is intended to ensure sufficient investment in the overall level of reliable capacity (both supply and demand side) needed to provide secure electricity supplies. It is designed to ensure sufficient reliable capacity during periods of system stress, for example during cold, still periods where demand is high and wind generation is low. It works by giving eligible capacity providers a steady payment to ensure enough capacity is in place to meet demand. Capacity providers face penalties if they fail to deliver electricity (or temporary demand reduction) when needed.
2. The Capacity Market allows the market to set a price for capacity competitively. Capacity agreements are offered to providers of existing and new capacity four years ahead of the year capacity must be delivered, giving investors certainty over part of the future revenues they will receive.
3. The Capacity Market is a technology neutral mechanism as existing generating capacity competes against new build, Demand Side Response (DSR) and storage, with the auction procuring whatever mix of capacity provides best value for consumers.

T-4 Auction 2016

4. The third main Capacity Market auction was concluded in December 2016, securing 52.4GW of capacity at a clearing price of £22.50/kW. Just under 70GW of capacity entered the auction, of which 75% received capacity agreements for delivery.
5. Figure 1 shows the breakdown of Capacity Agreements awarded by technology type in terms of capacity (MW).

Figure 1 – The breakdown Capacity Agreements awarded by technology type in 2016 T-4 Auction

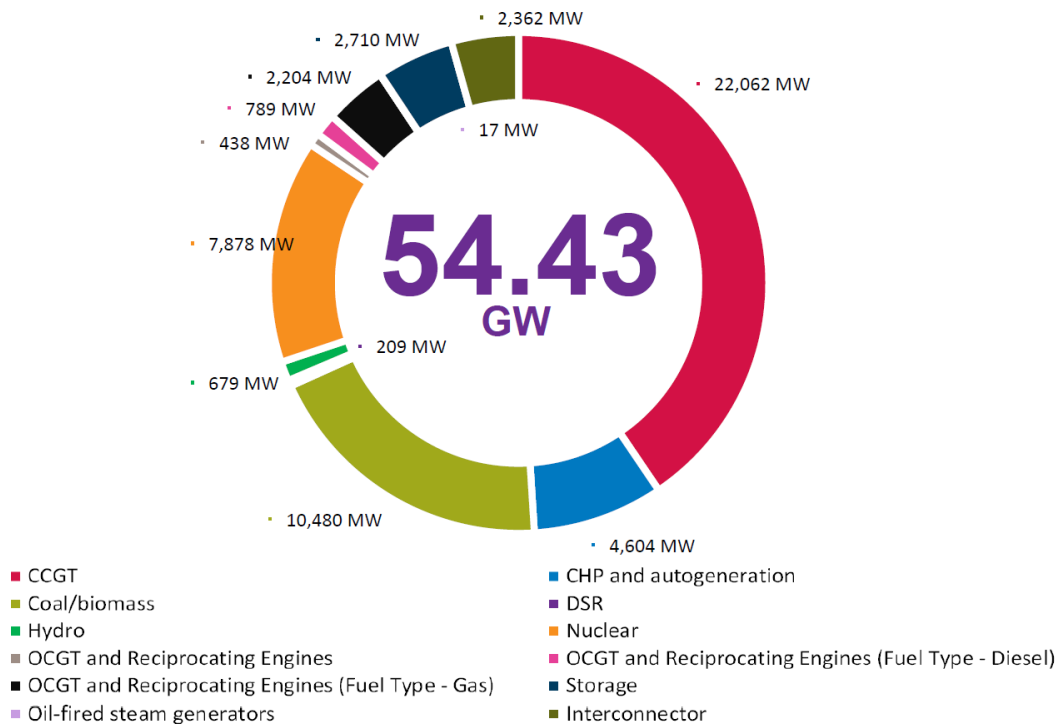


- An initial estimate of the gross average on household costs of the auction for delivery of capacity in 2020/2021 is around £14 (2016 prices). However, due to the security the Capacity Market is expected to provide, there should be a reduction in spikes in the wholesale electricity price. Estimates made at the time of the introduction of the Capacity Market in 2014 suggested an increase in the average annual domestic electricity bill of £2 over the period 2016 to 2030 (in 2012 prices) when reduced wholesale price spikes are taken into account.

Supplementary Capacity Auction (Early Auction) 2017

- The Government decided in May 2016, following a public consultation, to hold a new auction to bring forward the first Capacity Market delivery year to 2017/18, with the intention of addressing the needs of a rapidly evolving energy market. This step aimed to provide assurance for the 2017/18 year and allow the market to operate better earlier with less uncertainty.
- The early auction was concluded in February 2017, securing 54.4GW of capacity at a clearing price of £6.95/kW. Just over 59GW of capacity entered the auction, of which 92% received capacity agreements for delivery in 2019/20.
- Figure 1 shows the breakdown of Capacity Agreements awarded by technology type in terms of capacity (MW).

Figure 2 – The breakdown Capacity Agreements awarded by technology type in the Early Auction



10. An initial estimate of the gross average on household costs of the auction for delivery of capacity in 2017/2018 is around £4.50 (2017 prices). However, again, due to the security the Capacity Market is expected to provide, there should be a reduction in spikes in the wholesale energy price.

Transitional Arrangements Auction 2017

11. The second and final TA auction was concluded in March 2017, securing 312MW of DSR capacity at a clearing price of £45/kW. A total of 373MW of capacity entered the Auction, of which 84% received Capacity Agreements for delivery in 2017/18.
12. The TAs were one year ahead auctions intended to help support DSR and grow its potential for participation in the main Capacity Market.
13. The clearing price of £45/kW equates to around 50p on a gross basis on consumer bills for 2016/17. Once again, due to the security the Capacity Market is expected to provide, there should be a reduction in spikes in the wholesale energy price.

Appeals Processes for T-4 Auction 2016, Early Auction and Transitional Arrangements Auction 2017

14. All unsuccessful applicants for pre-qualification had the opportunity to have the decision reviewed as part of a two-tier dispute resolution process – initially by the Delivery Body, National Grid (Tier 1) and subsequently by Ofgem (Tier 2). During the 2016 T4, Early Auction and 2017 TA pre-qualifications the majority of Capacity Market Units (CMUs) were successful in overturning the initial prequalification rejections through Tier 1 appeals²⁵. Of the 52 Tier 2 disputes received, ten decisions were overturned. Two CMUs in the 2017 Early Capacity Auction did not have their disputes overturned but the parameters of their prequalification were changed.

Changes to Capacity Market Rules and Regulations

15. After consultation a series of changes were made to the Capacity Market under the Capacity Market (Amendment) (No. 3) Rules 2017²⁶, the Capacity Market (Amendment) (No. 2) Rules 2017²⁷, Capacity Market (Amendment) Rules 2017²⁸, Electricity Capacity (Amendment) Regulations 2016²⁹, the Capacity Market (Amendment) Rules 2016³⁰ and Ofgem's Capacity Market (Amendment) (No. 2) Rules 2016³¹.

²⁵ [Annual Report on the Operation of the Capacity Market in 2016-17](#)

²⁶ [Capacity Market \(Amendment\) \(No. 3\) Rules 2017](#)

²⁷ [Capacity Market \(Amendment\) \(No. 2\) Rules 2017](#)

²⁸ [Capacity Market \(Amendment\) Rules 2017](#)

²⁹ [Electricity Capacity \(Amendment\) Regulations 2017](#)

³⁰ [Capacity Market \(Amendment\) Rules 2016](#)

³¹ [Capacity Market Amendment \(No2\) Rules 2016](#)

16. The amendments include changes relating to demonstrating Satisfactory Performance Days; prequalification requirements; enabling interconnectors to become Price-Makers; facilitating the participation of dynamic frequency response providers; and implementing a new baseline for storage CMUs.

State Aid

17. In December 2014 Tempus Energy brought a challenge against the European Commission's decision in 2014 to grant State aid approval to the Capacity Market. The General Court of the Court of Justice of the European Union heard the case on 11th July 2017. The UK intervened as an interested party. The Government is awaiting the judgment. The operation of the Capacity Market is unaffected unless and until there is an adverse judgment.

Panel of Technical Experts

18. The Panel of Technical Experts is an independent group which is tasked with scrutinising the analysis that National Grid provides to Government on how much capacity to auction. Their remit does not include policy decisions, outcomes or costs to consumers. The Panel's 2017 report³² commented in particular on National Grid's capacity assessments for the 2017 T4 and T1 auctions and on de-rating factors for interconnectors³³.

³² Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/625885/PTE_Report_2017.pdf

³³ Derating factors adjust the assumed deliverable capacity to take account of reliability and other factors. Different derating factors are applied to different technologies at different rates.

The Emissions Performance Standard

1. The Emissions Performance Standard (EPS) is a regulatory backstop on the amount of carbon emissions that new fossil fuel power stations are allowed to emit. The EPS is set at a level around half that produced by unabated coal, which supports the planning requirement that any new coal-fired power stations can only be built if equipped with Carbon Capture and Storage. The EPS limit applies at individual plant level and is an absolute limit, so provides no facility for a plant to exceed its annual limit either by way of trading or year to year carry over.
2. Since the implementation of the EPS, no new consented plant has started to generate electricity and, as such, has not yet reached the stage of being caught by the requirements of the regulations to report to the Environment Agency.

Electricity Demand Reduction Pilot Scheme

Introduction

1. The Electricity Demand Reduction (EDR) Pilot Scheme provides financial support to organisations which deliver electricity savings at peak times by installing more energy efficient equipment.
2. The purpose of the EDR Pilot Scheme is to understand whether the installation of more efficient equipment (which provides lasting, rather than temporary, reductions) could cost effectively participate in the Capacity Market; alongside generation, demand side response and storage, and to learn lessons on energy efficiency. EDR projects could potentially contribute to the Capacity Market as they reduce the demand placed on the electricity system and, in turn, lower the amount of generation capacity that needs to be delivered to meet that demand. The timetable for the EDR Pilot Scheme is shown below.

Deliverables Phase I Auction	Achieved	When
EDR auction held	✓	29 Jan 2015
EDR auction results published	✓	4 Feb 2015
Final reports and EDR payments made to successful participants	✓	1 Dec 2016

Deliverables Phase II Auction	Achieved	When
EDR auction held	✓	21 Jan 2016
EDR auction results published	✓	29 Jan 2016

For 16/17 delivery year	Achieved	When
Major measurement and verification updates completed	✓	31 Aug 2016
Operational verification of projects	✓	31 Mar 2017

Results of Phase I of the EDR Pilot

3. As previously reported, funding of £1.28m was awarded in the January 2015 auction to 18 organisations to deliver electricity savings of 5,589kW over the winter peak. Funding covered 22 separate projects spanning a range of organisations across the public and private sector at a variety of scales from 100kW to 823kW and with an average bid price of £229/kW³⁴. Lighting and lighting control systems were the most successful technologies in winning bids. Projects in Phase I of the Pilot, delivered their winter peak capacity savings during the 2015/16 winter peak (start of November

³⁴ Weighted average

to end of February). Phase I completed on the 1st December 2016, with a total of 13 projects receiving full or partial payment; £560,000 for 2.2MW of demand reduction.

Results of Phase II of the EDR Pilot (to date)

4. The second EDR Pilot auction³⁵ took place on 21 January 2016. Funding of £4.74m was offered to 24 lead organisations for 37 individual projects across Great Britain. A total of 23.3MW of savings has been committed to at auction from Phase II projects. Participants could choose to deliver their savings over the 2016/17 or 2017/18 winter peak.
5. Participants were given the opportunity to make updates to their projects before September 2016 and those with unspecified elements of their project were required to detail these at this time.
6. Since the start of September participants have been undertaking the Operational Verification of their projects. Participants are asked to provide proof that they have purchased and installed the measures they were planning to. Once the Department for Business, Energy and Industrial Strategy (BEIS) has verified the installed equipment, participants will be paid the first of their three payments (up to 20% of the total project value). This change to the payment structure from Phase I is to help participants with the cost of installation.
7. Projects that delivered during the 2016/17 Winter peak are now submitting their Final Reports. This report allows for evaluation information to be gathered and enables the final 20% payment to be processed upon satisfactory completion (December 2017). The initial 20% payment was made upon verification of the installation of the measures (Operational Verification), with the second 60% payment made upon production of the Winter Capacity Savings Report to prove the project has delivered the capacity savings committed to. Projects delivering during 2017/18 will go through the same process, with final payments processed around December 2018.

EDR Evaluation

8. Evaluation is a key component of the EDR pilot scheme. BEIS has put in place a significant external contract for evaluating the pilot. An [interim evaluation findings report and a pilot data report](#) were published in February 2017, summarising the key findings and pilot outcomes to date.³⁶ In addition BEIS commissioned a contract to assess the accuracy of the deemed approach to monitoring and verifying kW savings by installing metering equipment.

³⁵ Phase II of the pilot was granted State aid approval in February 2016.

³⁶ [EDR interim evaluation findings report and a pilot data report](#)

Next steps for the EDR pilot

9. As well as continuing to administer the scheme until the end of Phase II in 2018, BEIS is continuing with evaluation activities. Findings and conclusions from the final stages of the evaluation will be published; drawing upon the interim findings report, and incorporating findings from the phase II participants. The evaluation of the EDR Pilot will provide a robust evidence base to inform the decision making process on EDR and related policies. It will also be used to fulfil the obligation to report the outcomes of the EDR Pilot to Parliament.

Low Carbon Contracts Company (LCCC) and Electricity Settlements Company (ESC)

1. LCCC and ESC are responsible for helping Government to deliver key elements of the Capacity Market and Contracts for Difference (CfDs), which are Government schemes designed to incentivise the significant investment required to keep energy supplies secure, affordable and to help meet our climate change targets
2. LCCC, as counterparty to CfDs (including the Investment Contracts which have been transferred to LCCC³⁷), enters into and manages long-term contracts with low carbon generators, awarding top-up payments for qualifying generation. The details of these projects are listed on the [CfD Register](#)³⁸, available on the LCCC website.
3. The Electricity Settlements Company (ESC) is responsible for all financial transactions relating to the Capacity Market, including making capacity payments to capacity providers, controlling collateral and managing auction credit cover.
4. Both the LCCC and ESC are companies limited by shares and wholly owned by the Secretary of State for Business Energy and Industrial Strategy. The companies became operational on 1 August 2014 and operate within two main frameworks: EMR legislation (the Energy Act 2013 and the relevant regulations made under the Act) and the corporate and company law frameworks.
5. In the past year, the LCCC has focused on the implementation of CfDs. This has involved:
 - progressing CfD projects through the next stage following successful completion of the Milestone Requirement, with 4 projects commencing operation after fulfilling their Operational Conditions Precedent;
 - successfully making payments to counterparties during the year in line with regulatory and contractual requirements;
 - signing the Hinkley Point C contract in September 2016; and,
 - setting the quarterly Supplier Obligation Levy.
6. In the past year, the ESC has successfully completed substantial upgrades to the settlement system which processes payments to and from Capacity Market participants under capacity agreements. ESC also began paying capacity providers in October 2016, who were successful in the first Transitional Arrangements Auction.

³⁷ Investment contracts, which have been transferred to LCCC, are treated by virtue of regulation 2(4) of the Contracts for Difference (Electricity Supplier Obligations) Regulations 2014 as CfDs for various purposes. Any reference to a CfD in this document is to be treated as including any such Investment Contracts.

³⁸ The CfD register on the LCCC website

Glossary

BEIS	Department for Business, Energy and Industrial Strategy
CCUS	Carbon Capture Usage and Storage
CHP	Combined Heat and Power
CfD	Contract for Difference
CMU	Capacity Market Unit
DSR	Demand Side Response
EDR	Electricity Demand Reduction
EMR	Electricity Market Reform
EPS	Emissions Performance Standard
ESC	Electricity Settlements Company
FIDeR	Final Investment Decision enabling for Renewables
GW	Gigawatt
kW	Kilowatt
LCCC	Low Carbon Contracts Company
MW	Megawatt
SO	Supplier Obligation
TA	Transitional Capacity Auctions

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