

Department for Business, Energy & Industrial Strategy

# CONTRACTS FOR DIFFERENCE AND CAPACITY MARKET SCHEME UPDATE 2016

December 2016

# CONTRACTS FOR DIFFERENCE AND CAPACITY MARKET SCHEME UPDATE 2016

Presented to Parliament pursuant to Section 5(4) of the Energy Act 2013

December 2016



© Crown copyright 2016

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

To view this licence, visit <u>www.nationalarchives.gov.uk/doc/open-government-</u> <u>licence/version/3/</u> or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: <u>psi@nationalarchives.gsi.gov.uk</u>.

Any enquiries regarding this publication should be sent to us at <u>BEIScorrespondence@beis.gov.uk</u>

Print ISBN 9781474139410

Web ISBN 9781474139427

ID 05121801 12/16

This publication is available for download at <u>www.gov.uk/government/publications</u>

# Contents

Executive summary	4
Contracts for Difference Scheme	6
Capacity Market	15
The Emissions Performance Standard	21
Electricity Demand Reduction Pilot Scheme	22
Low Carbon Contracts Company and Electricity Settlements Company	24

# **Executive summary**

- This is the third 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 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 pilot, which provides financial support to organisations for the delivery of enduring electricity capacity savings at peak times.

### Key progress since the 2015 update

- 3. The first CFD Allocation Round completed in early 2015 and resulted in CFDs for 25 projects being signed, representing 2106MW of new renewable generation capacity to commission from 2016/17 onwards. Twenty three of these projects have now passed their milestone requirement, demonstrating significant financial commitment to the projects, and the first project commenced generation in 2016. Two projects have had their contracts terminated by the Low Carbon Contracts Company (LCCC). Plans for the second Allocation Round were announced on 9 November 2016<sup>1</sup>.
- 4. The Final Investment Decision Enabling for Renewables (FIDeR) process supported projects facing investment hiatus ahead of the implementation of EMR. Eight renewable electricity projects were awarded Investment Contracts (early CFDs) in April 2014<sup>2</sup>. One of these projects has received State aid approval from the European Commission since the last update, making seven in total, and at the time of writing the Commission is expected to make a decision on the final contract shortly.

<sup>&</sup>lt;sup>1</sup> The announcement can be read at: <u>https://www.gov.uk/government/news/government-sets-out-plans-to-upgrade-uk-energy-infrastructure-and-increase-clean-energy-investment</u>

<sup>&</sup>lt;sup>2</sup> A full list of the successful FID Enabling for Renewables projects can be found at: <u>www.gov.uk/government/uploads/system</u>/<u>uploads/attachment\_data/file/305781/Successful\_Projects.pdf</u>

- 5. The second Capacity Market auction was successfully concluded in December 2015 (for delivery in 2019/20), contracting for 46.4GW of capacity at a clearing price of £18/kW. Just under 58GW of capacity entered the auction, of which 80% received capacity agreements for delivery in 2019/20. The total forecast cost of Capacity Agreements awarded in this auction is £834m (in 2015 prices).
- 6. The first of two Transitional Arrangements auctions, targeting demand-side response, was completed in February 2016 contracting around 803MW of capacity for delivery in 2016/17 at a clearing price of £27.50.
- 7. Following consultation, changes to the Capacity Market were announced in May 2016, including a commitment to buy more capacity sooner; tougher penalties for non-delivery; and a new, early auction to be held in January 2017 to bring forward the first delivery year of the full Capacity Market by a year to 2017/18. A further amendment to the Capacity Market rules was made in November 2016 (following consultation) to prevent selective over-compensation (arising from some participants benefiting from funding through both risk finance schemes and capacity payments).
- The third Capacity Market auction was successfully concluded on 8 December 2016 (for delivery in 2020/21), contracting for 52.43GW of capacity at a clearing price of £22.50/kW. 69.8GW 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.
- 9. 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 peak<sup>3</sup>. In the second phase, £4.7m 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.

<sup>&</sup>lt;sup>3</sup> 1<sup>st</sup> November 2015 to 29<sup>th</sup> February 2016

# **Contracts for Difference Scheme**

Deliverable	Achieved	When
Budget announced for further CFD auctions this Parliament	~	Mar 2016
First project under the CFD starts generation	~	Jun 2016
23 projects from first CFD Allocation Round passed the milestone delivery requirement	~	Spring/Summer 2016
The Contracts for Difference (Miscellaneous Amendments) Regulations 2016 came into force	~	Jul 2016
The Contracts for Difference (Allocation) (Amendment) Regulations 2016 came into force	~	Nov 2016
Details about second CFD Allocation Round announced	~	Nov 2016
Second CFD Allocation Round opens	On track	Apr 2017

# Introduction

1. The first CFD Allocation Round was completed in March 2015, with CFDs signed for 25 renewable projects located in Great Britain<sup>4</sup> representing 2106MW of new renewable generation capacity to commission from 2016/17 onwards. The competitive auction process has driven down costs to consumers. For example, the first competition delivered savings of around 20% against the administrative strike price for offshore wind, and we expect the second auction to drive further cost reductions.

# **Contracts for Difference Scheme - Contract Status**

2. CFDs are managed by the LCCC. Since the CFDs were signed last year, the LCCC has been working proactively with CFD holders to keep them on track to deliver their contractual commitments. The CFD projects are required to fulfil their milestone requirement by the milestone delivery date (12 months from contract signature). To meet its milestone requirement, a generator must demonstrate that it has made a significant commitment to the project in terms of expenditure or signed contracts. All of the projects from the first Allocation Round that are currently managed by the LCCC have passed the milestone delivery requirement.

<sup>&</sup>lt;sup>4</sup> A register of projects is available at: <u>https://lowcarboncontracts.uk/cfds</u>

- Since the last update, the LCCC has issued termination notices for two CFDs<sup>5</sup>: 3.
  - Neart na Gaoithe, a 448MW offshore wind farm owned by Mainstream; and
  - Netley Landfill Solar, a 12MW solar farm owned by Renewable Energy Generation Limited.
- 4. In summer 2016 Charity Farm, a solar project in Shropshire was commissioned as the first project under the CFD scheme to begin generating power.

### Consultations on changes to the CFD scheme

#### **Contract and Regulatory Changes**

- 5. From 9 March to 20 April 2015, the Government consulted on a series of proposed amendments to the CFD regime. A Government response to the consultation was published on 29 June 2015<sup>6</sup> setting out the Government's decisions on the proposed changes to the CFD Contract and secondary legislation. These were set out in the 2015 EMR Annual Update<sup>7</sup>.
- 6. Amendments were made to a number of regulations to implement these changes and these came into force on 20 July 2016<sup>8</sup>. The following regulations were amended:
  - The Contracts for Difference (Definition of Eligible Generator) Regulations 2014
  - The Contracts for Difference (Allocation) Regulations 2014
  - The Contracts for Difference (Standard Terms) Regulations 2014
  - The Electricity Market Reform (General) Regulations 2014
- 7. These amendments made minor changes to the existing allocation methodology and to the operation of the CFD contract once signed. These changes, among other things, ensure that an application for a CFD cannot be made where there is a pending application for a Capacity Agreement in respect of the same unit to avoid distorting the allocation for both processes, and will also enable the Secretary of State to obtain information relating to non-price sealed bid data in order to evaluate the efficacy of the Allocation Round.

#### **Further Contract Changes**

From 11 May to 8 June 2016, the Government consulted on further changes to the 8. CFD contract in advance of the second Allocation Round<sup>9</sup>. The consultation proposed changes relating to preventing the cumulation of State aid, the definition of

<sup>&</sup>lt;sup>5</sup> Termination notices recorded can be found on the register at: <u>https://lowcarboncontracts.uk/cfds</u>

<sup>&</sup>lt;sup>6</sup> Available at: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/439308/March\_Consultation\_Government Response.pdf

<sup>&</sup>lt;sup>7</sup> Available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/439308/March\_Consultation\_\_Government</u> Response.pdf

<sup>&</sup>lt;sup>8</sup>Available at: <u>http://www.legislation.gov.uk/uksi/2016/784/pdfs/uksi\_20160784\_en.pdf</u>

<sup>&</sup>lt;sup>9</sup> Available at: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/521976/May\_2016\_CFD\_Contract Changes Consultation.pdf

'foreseeable change in law', electricity storage, and a number of other minor and technical amendments. The Government intends to publish a Government response in due course, along with the laying of regulations and publication of the revised CFD Contract.

#### **Delivery Years**

9. From 4 July to 8 August 2016 a consultation took place regarding the extension of the delivery years for which budget can be made available to cover 2021-2026. All responses were affirmative. A Government response<sup>10</sup> was published on 6 September and the regulations have been amended<sup>11</sup>. These amended regulations came into force on 2 November 2016.

#### **The Non-Delivery Disincentive**

- 10. 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 fail to deliver the project. This is intended to prevent an inefficient allocation of Levy Control Framework budget and to deter speculative applications.
- 11. The Government launched a consultation on 26 May 2016 on options to extend the exclusion period to 24 months and make some additional technical changes.<sup>12</sup>
- 12. The Government response<sup>13</sup> published on 11 October set out the intention to make the necessary regulatory changes in order to implement these amendments. These have now been debated in both houses and, at the time of writing, will come into force shortly.

#### Non-mainland GB onshore wind projects

13. The Government is seeking views on its position that non-mainland GB onshore wind projects should not be classified as a separate technology, nor allowed access to Pot 2 (less established technologies) Allocation Rounds, but should continue to be treated as onshore wind. A consultation has been launched to seek evidence on this issue. The consultation opened on 9 November 2016 and will close on 31 January 2017<sup>14</sup>.

<sup>&</sup>lt;sup>10</sup> Available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/550415/CfD\_Government\_Response.pdf</u>
<sup>11</sup> Available at <u>http://www.legislation.gov.uk/uksi/2016/1053/pdfs/uksi\_20161053\_en.pdf</u>

<sup>&</sup>lt;sup>12</sup> Available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/521976/May\_2016\_CFD\_Contract\_Changes\_Consultation.pdf</u>

<sup>&</sup>lt;sup>13</sup> Available at: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/559106/Government\_Response CFD\_Government\_Response to the Consultation on Changes to the Non-Delivery Disincentive for CFD\_Allocation.pdf

<sup>&</sup>lt;sup>14</sup> Available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/566329/CFD\_Consultation\_on</u> treatment\_of\_non-mainland\_GB\_onshore\_wind\_projects\_FINAL.pdf

#### Call for evidence on fuelled and geothermal technologies

14. On 9 November 2016 the Government launched a call for evidence on fuelled technologies in the CFD Scheme. This call for evidence seeks views on how the scheme should treat fuelled technologies in future, beyond the second round. It also seeks 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<sup>15</sup>

### Second CFD Allocation Round

At Budget 2016 the Government announced an overall budget of £730m of annual 15. support to be auctioned this Parliament. Further details for the second Allocation Round for Pot 2 (less established) technologies were announced on 9 November 2016<sup>16</sup>; the round is expected to open in April 2017.

#### **CFD Budget allocation for Pot 2**

The budget which is available for each delivery year of the second CFD Allocation 16. Round is set out in Table 1.

#### Table 1: CFD Budget Release for second Allocation Round (Figures are total support payments available in a given year)

	Delivery	y Year <sup>17</sup>
£m (2011/12 prices)	21/22	22/23
Pot 2 (less established technologies)	290	290

- 17. The "less established" technologies included in this Pot 2 Allocation Round are:
  - 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

<sup>&</sup>lt;sup>15</sup> Available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/566356/Call\_for\_Evidence\_fuelled</u> techs in CfD FINAl.pdf <sup>16</sup> The draft budget notice is available at: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/566307/Draft

Budget\_Notice\_FINAL.pdf

Delivery Year as defined in regulation 2 of the Contracts for Difference (Allocation) Regulations 2014.

#### **Draft Administrative Strike prices**

18. The administrative strike prices applicable to applications in the second Allocation Round are shown in Table 2<sup>18</sup>:

Technology	2021/22	2022/23
Offshore wind <sup>19</sup>	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 <sup>20</sup>	-	-

#### Table 2: CFD Draft Administrative Strike Prices (£/MWh, 2012 prices)

### Northern Ireland

19. 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

20. The Government is continuing to consider the option of extending the CFD scheme to renewable electricity projects located outside Great Britain and 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 would be.

# The CFD Supplier Obligation

21. 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') and a lump sum quarterly payment (individual supplier 'Reserve Payments'). These rates are set on a quarterly basis by the LCCC. Each supplier's prepayments and their actual share of CFD costs are reconciled at the end of every quarterly levy period.

<sup>18</sup> See draft budget noticed published on 9 November 2016: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/566307/Draft\_Budget\_Notice\_FINAL.pdf</u> A cumulative maxima of 150 MW (equivalent to a budget maxima of £70M) will be applied in respect of the fuelled technologies:Dedicated Biomass with CHP, Advanced Conversion Technologies and Anaerobic Digestion.
<sup>19</sup> For information of phasing of offshore wind projects see paragraph 15 of the accompanying note available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/566320/Accompanying\_note\_for\_Draft\_Budget\_Notice\_FINAL.pdf</u>
<sup>20</sup> Further information is being sought to improve the evidence base for a Geothermal strike price via the Call for Evidence on Fuelled Technologies and Geothermal available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/566356/Call\_for\_Evidence\_fuelled\_techs\_in\_CfD\_FINAL.pdf</u>

22. The SO became chargeable on 1 April 2015. Electricity supplied to eligible Electricity Intensive Industries (EIIs)<sup>21</sup> and electricity supplied from eligible renewable generators in other EU Member States will not be charged the SO.

#### SO charges for 2016

- 23. LCCC has published a transparency tool<sup>22</sup> to provide suppliers with the assumptions behind the rates that have been set and in-period tracking. They also publish a forecast of expected rates for the following three quarters.
- 24. From 14 September to 23 October 2015, the Government consulted on further changes to the design of the SO in order to reduce costs to consumers by improving the efficiency and transparency of the scheme. The Government published its response in January 2016<sup>23</sup>. The first set of regulatory changes came into effect in April 2016, and the Government stated its intention to lay regulations on the second suite of changes by mid-2017.
- 25. Performance of the SO will be kept under review, particularly once payments to generators begin to flow in earnest.

#### **Table 3: Supplier Obligation charges**

	Interim Levy Rate (£/MWh)	Total Reserve Amount (£)
Q1 2016	0.348 (revised to 0 on 21/1/16)	8.86m
Q2 2016	0	0
Q3 2016	0.005	0.14m
Q4 2016	1.016 (revised to 0.594 on 17/10/16 and 0 on 14/11/16)	4.67m

# Update on Areas Outside the Generic CFD Scheme

#### Swansea Bay Tidal Lagoon

26. In March 2015 Government entered into a bilateral negotiation with Tidal Lagoon Power Ltd to establish whether a CFD for a potential tidal lagoon at Swansea Bay could be value for money for the electricity consumer.

<sup>&</sup>lt;sup>21</sup> Legislation establishing an exemption for Ells from the costs of CFDs was published in 2015, and following State aid approval in December 2015 minor amendments are required before the exemption can enter into force. The exemption is intended to be implemented in early 2017.
<sup>22</sup> Transparency tool available here: <u>https://sofm.lowcarboncontracts.uk/</u> You have to first register on the LCCC website

<sup>&</sup>lt;sup>22</sup> Transparency tool available here: <u>https://sofm.lowcarboncontracts.uk/</u>You have to first register on the LCCC website <u>https://lowcarboncontracts.uk/suppliers</u> before gaining access to the Transparency Tool. Once registered, you can navigate to the tool using the link at the beginning of the team.

<sup>&</sup>lt;sup>23</sup> The Government's consultation and response are available at: <u>https://www.gov.uk/government/consultations/contracts-for-difference-supplier-obligation-improving-efficiency-transparency</u>

- 27. In February 2016 the Government launched an independent review of tidal lagoons to help establish an evidence base to ensure that all decisions regarding tidal lagoon energy are in the best interest of the UK consumer and represent value for money. The review, led by Charles Hendry, provided its final report to Government on 6<sup>th</sup> December 2016. The review's Terms of Reference required it to assess the strategic case for tidal lagoons and whether they could represent value for money for the consumer. 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.

Government will now consider the findings of the review in the context of its wider energy policy.

#### Final Investment Decision Enabling for Renewables – Progress update

28. The aim of the FIDeR process was to support projects facing investment hiatus ahead of the implementation of EMR. Eight renewable electricity projects were awarded Investment Contracts (early CFDs) in 2014. The European Commission has awarded State aid approval for seven of these projects and these have been transferred to the LCCC (5 offshore wind projects in July 2014; MGT Teesside Biomass CHP in January 2015; and Lynemouth coal-to-biomass conversion in December 2015). At the time of writing the Drax Unit #1 coal-to-biomass conversion was awaiting a State aid decision following notification to the Commission in April 2015.

#### Carbon Capture & Storage

29. In November 2015, the Government withdrew the capital funding to support the Carbon Capture and Storage (CCS) competition and subsequently took the decision to close the CCS Competition. The Government then commissioned Lord Oxburgh to establish a CCS Parliamentary Advisory Group which reported on 12 September 2016<sup>24</sup>. Government is considering closely the findings and recommendations made in Lord Oxburgh's report and will set out a future approach to CCS in due course. Government will continue to work with industry going forward, but the costs of CCS must come down if it is to play a part in the long-term decarbonisation of the UK's economy.

<sup>&</sup>lt;sup>24</sup> Available at: <u>http://www.ccsassociation.org/news-and-events/reports-and-publications/parliamentary-advisory-group-on-ccs-report/</u>

#### **Hinkley Point C**

- On 29 September 2016 the Government signed a Contract for Difference for Hinkley 30. Point C, the first new nuclear plant in the UK for more than 20 years<sup>25</sup>.
- Hinkley Point C will provide 3.2GW of secure, base-load, low carbon electricity for at 31. 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.
- The strike price agreed was £92.50/MWh. Consumers will only pay when Hinkley 32. Point C is providing low carbon electricity. Payments under the contract will represent around £12 on energy bills in 2030.

#### **Evolution of the Renewables Obligation**

- The 2015 Annual Update set out proposals for action on support for solar PV and 33. onshore wind under the Renewables Obligation (RO). These have been taken forward as follows:
  - The Government response to the consultation on changes to financial support for small-scale solar PV was published on 17 December 2015<sup>26</sup>. This announced the decision to close the RO early to solar PV generating stations up to 5MW across Great Britain. The RO closed to these generating stations on 31 March 2016, with grace periods that extend the closure date to 31 March 2017 in certain circumstances. The Government response also announced the removal of grandfathering for solar PV stations in England and Wales with an accreditation date under the RO from 23 July 2015 onwards. Grandfathering is a statement of policy intent that once a generating station is accredited, the level of support will not change for its lifetime under the RO. The level of support for stations accrediting from 23 July 2015 onwards will decrease in line with the reduced levels proposed under the banding review (see below). However, the Government response announced two exceptions to the removal of grandfathering. The grandfathering exception allows grandfathering to continue to apply where a station meets the criteria for demonstrating that a significant financial commitment had been made by 22 July 2015, but the station accredits under the RO after that date. The banding reduction exception protects stations against reduced support if they are covered by the grandfathering exception and accredit after the new support rate comes into force. A solar specific banding review was launched on 17 December 2015<sup>27</sup> to prevent overcompensation of solar PV stations. This proposed reduced support for new stations. The consultation closed on 27 January 2016.

 <sup>&</sup>lt;sup>25</sup> Available at: <u>https://www.gov.uk/Government/publications/hinkley-point-c-documents</u>
 <sup>26</sup> Available at: <u>https://www.gov.uk/government/consultations/changes-to-financial-support-for-solar-pv</u>

<sup>&</sup>lt;sup>27</sup> Available at: https://www.gov.uk/government/consultations/consultation-on-the-level-of-banded-support-for-new-solar-pv-under-therenewables-obligation

• The RO closed on 12 May 2016 to onshore wind generating stations in Great Britain under the provisions of the Energy Act 2016<sup>28</sup>. There are exceptions that extend the closure date up to 31 January 2019 in certain circumstances.

<sup>&</sup>lt;sup>28</sup> Available at: <u>http://www.legislation.gov.uk/ukpga/2016/20/contents</u>

# **Capacity Market**

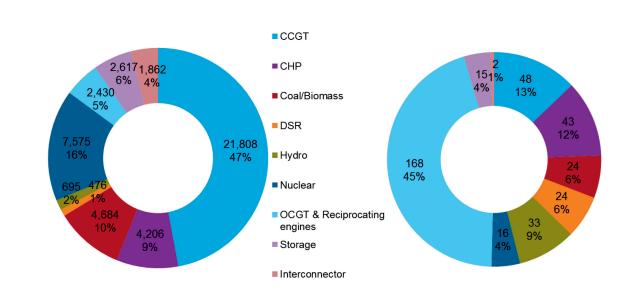
# Introduction

Deliverable	Achieved	When
Capacity Market 2015 T-4 auction opened	<b>v</b>	8 Dec 2015
Capacity Market 2015 T-4 auction results published	<b>~</b>	22 Dec 2015
Capacity Market 2016 Transitional Arrangements auction opened	<b>v</b>	26 January 2016
Capacity Market 2016 Transitional Arrangements auction results published	<b>v</b>	8 February 2016
Secretary of State published Auction Parameters for Capacity Market 2016 T-4 auction and 2017 Transitional Arrangements auction	<b>v</b>	8 Jul 2016
Final revised Capacity Market Rules published	<b>v</b>	15 Jul 2016
The Electricity Capacity (Amendment) Regulations 2016 made	<b>v</b>	21 July 2016
Prequalification for Capacity Market and Transitional Arrangement auctions opened	<b>v</b>	1 Aug 2016
Prequalification results day	<b>~</b>	23 Sep 2016
The Capacity Market (Amendment) (No.3) Rules 2016	<b>v</b>	21 Nov 2016
Capacity Market 2016 T-4 auction opens	<b>~</b>	06 Dec 2016
Capacity Market Early Auction opens	On track	31 Jan 2017
Capacity Market 2017 Transitional Arrangement auction opens	On track	22 Mar 2017

- 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 will face penalties if they fail to deliver electricity (or temporary demand reduction) when needed.
- 2. The Capacity Market allows the market to competitively set a price for capacity. 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.

# T-4 Auction 2015

- 3. The second Capacity Market auction was concluded in December 2015, contracting 46.3GW of capacity at a clearing price of £18.00/kW. Just under 58GW of capacity entered the auction, of which 80% received capacity agreements for delivery in 2019/20.
- 4. 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.
- 5. Figure 1 shows the breakdown of Capacity Agreements awarded by technology type in terms of capacity (MW) on the left and number of Capacity Market Units (CMUs) on the right.



# Figure 1 – The breakdown of CMUs awarded Capacity Agreements by technology type

6. An initial estimate of the gross average effect on household energy bills for this auction is under £10 (in 2015 prices); however, due to the security the Capacity Market is expected to provide, there should be a reduction in spikes in the wholesale energy price. Estimates made at the time of the introduction of the Capacity Market in 2014 showed 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.

# **Transitional Arrangements Auction 2016**

- 7. The first Transitional Arrangements auction was concluded in January 2016, contracting 802.7MW of DSR capacity at a clearing price of £27.50/kW. A total of 1,110MW of capacity entered the Auction, of which 72.31% received Capacity Agreements for delivery in 2016/17.
- 8. The Transitional Capacity Auctions (the "TAs") are one year ahead auctions intended to help support DSR and small scale participation in the Capacity Market.
- 9. The clearing price of £27.50/kW equates to around £22m on a gross basis on consumer bills for 2016/17, although 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 2015 and Transitional **Arrangements Auction 2016**

- 10. All unsuccessful applicants for pre-gualification 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 2015 T4 and 2016 TA pre-gualifications the majority of CMUs were successful in overturning the initial pregualification rejections through Tier 1 appeals<sup>29</sup>. One application was disputed at Tier 2 in both the T-4 and TA pre-gualification and the decision to reject the application was maintained in both cases<sup>30</sup>.
- 11. A number of applicants that successfully pre-gualified for the TA were subsequently disgualified for failing to satisfy the requirements of the Capacity Market Regulations, including meeting metering requirements, or submitting the required documentation. A number of appeals were made directly to the Secretary of State, and have been (or continue to be) considered in line with the Electricity Capacity Regulations 2014 and the Capacity Market Rules 2014.

# Changes to Capacity Market Rules and Regulations

After consultation a series of changes were made to the Capacity Market under the 12. Electricity Capacity (Amendment) Regulations 2016<sup>31</sup>, the Capacity Market (Amendment) Rules 2016<sup>32</sup>, Ofgem's Capacity Market (Amendment) (No 2) Rules 2016, and the Capacity Market (Amendment) (No 3) Rules 2016<sup>33</sup>.

<sup>31</sup> Available here: http://www.legislation.gov.uk/id/uksi/2016/742

<sup>&</sup>lt;sup>29</sup> Available here: <u>https://www.ofgem.gov.uk/system/files/docs/2016/06/annual report on the operation of the capacity market</u> 6 june 2016 final.pdf <sup>30</sup> Available here: <u>https://www.ofgem.gov.uk/ofgem-publications/97919/determination-gfp-november2015redacted0-pdf</u>

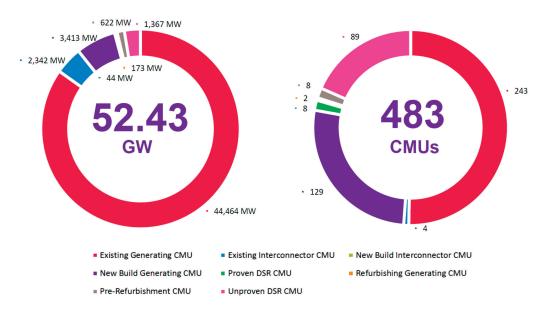
<sup>&</sup>lt;sup>32</sup> Available here: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/538293/Capacity\_Market\_Amendment</u> Rules 2016.pdf

<sup>&</sup>lt;sup>33</sup> Available here: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/538234/Capacity\_Market\_Amendment No.2 Rules 2016 Ofgem .pdf

13. The principal changes made by this package of legislation are the implementation of an early auction (called the Supplementary Auction in legislation), which brings forward the first Capacity Market delivery year to 2017/18; increases in Capacity Market credit cover and termination fees to tighten delivery incentives<sup>34</sup>; and new requirements to ensure capacity providers are not selectively over-compensated through receiving both capacity payments and funding through risk finance schemes<sup>35</sup>. The package also refines eligibility for the second of two Capacity Market "transitional arrangements" auctions and makes a number of other more minor or technical adjustments to the Capacity Market scheme.

# T-4 Auction 2016

- 14. The third Capacity Market auction was successfully concluded on 8 December 2016, contracting for 52.43GW of capacity at a clearing price of £22.50/kW. 69.8GW of capacity entered the auction, of which 75% received capacity agreements for delivery in 2020/21.
- 15. Figure 2 shows the breakdown of Capacity Agreements awarded by technology type in terms of capacity (MW) on the left and number of Capacity Market Units (CMUs) on the right.



# Figure 2 – The breakdown of CMUs awarded Capacity Agreements by technology type

16. An initial estimate of the gross average effect on household energy bills for this auction is around £14 (in 2016 prices); however, due to the security the Capacity Market is expected to provide, there should be a reduction in spikes in the wholesale energy price. Estimates made at the time of the introduction of the Capacity Market in 2014 showed an increase in the average annual domestic electricity bill of £2 over

<sup>&</sup>lt;sup>34</sup> Available here: <u>https://www.gov.uk/government/collections/capacity-market-2016</u>

<sup>&</sup>lt;sup>35</sup> Available here: https://www.gov.uk/government/publications/selective-overcompensation-in-the-capacity-market

the period 2016 to 2030 (in 2012 prices) when reduced wholesale price spikes are taken into account.

# Early Capacity Auction 2017

- 17. 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 will provide assurance for the 2017/18 year and will allow the market to operate better earlier with less price volatility and uncertainty.
- 18. The Early Capacity Auction will be held on 31 January 2017 to procure 53.6GW of capacity for the delivery year 2017/18. The auction will purchase 100 percent of the Capacity Market requirement for 2017/18 in other words, while its structure and timings will be similar to the T-1 auction, it will procure the full capacity requirement for the winter of 2017/18. Table 4 shows the Auction Parameters for the 2017 Early Capacity auction, determined by the Secretary of State<sup>36</sup>.

#### Table 4 – Auction Parameters for Early Capacity Auction (in 2015/16 prices)

Parameter	Value
Target capacity for 2017 Early Auction	53,600MW
Demand curve: Maximum capacity at price cap	52,600MW
Demand curve: Capacity purchased at £0/kW	54,600MW
Reliability Standard	3 hours/year
Price cap	£75/kW/yr
Net CONE Proxy	£49/kW
Price Taker Threshold	£25/kW/yr
Indexation base period	2015/16

### **Transitional Arrangements Auction 2017**

19. There will be a Transitional Arrangements auction on 22 March 2017 to purchase target capacity of 300MW for delivery in 2017/18 from the emerging "turn down" DSR sector only. The target of 300MW represents a stretching target when considered against current evidence and may be reconsidered following prequalification. Table 5 shows the Auction Parameters for the 2017 Transitional Arrangements auction, determined by the Secretary of State<sup>37</sup>. Pre-qualification for the Transitional Arrangements auction opened on 1 August 2016 and the results were published on 23 September 2016<sup>38</sup>.

<sup>&</sup>lt;sup>36</sup> Available here: <u>https://www.gov.uk/government/publications/letter-from-amber-rudd-to-national-grid-about-second-capacity-market-auction-the-201718-early-auction-and-the-second-transitional-arrangement-auctio</u>

<sup>&</sup>lt;sup>37</sup> Available here: <u>https://www.gov.uk/government/publications/letter-from-amber-rudd-to-national-grid-about-second-capacity-market-</u> auction-the-201718-early-auction-and-the-second-transitional-arrangement-auctio

<sup>&</sup>lt;sup>38</sup>Available here: <u>www.emrdeliverybody.com/SitePages/Home.aspx</u>

# Table 5: Auction Parameters for Transitional Arrangements auction (in 2015/16 prices)

Parameter	Value
Target capacity for 2017 Transitional Arrangements Auction	300MW
Demand curve: Maximum capacity at price cap	200MW
Demand curve: Capacity purchased at £0/kW	400MW
Price cap	£75/kW/yr
Net CONE Proxy	£49/kW
Price Taker Threshold	£25/kW/yr
Time banded discount to the clearing price	70%
Indexation base period	2015/16

# State Aid

- 20. Two challenges have been brought against the European Commission's decision in 2014 to grant State aid approval to the Capacity Market. The Commission is robustly defending their decision making process and the UK has intervened as an interested party to support the Commission. However, a hearing and judgment are not expected until early 2017 at the earliest; until such time, we have State aid approval for the Capacity Market and it will continue to run as planned.
- 21. The Early Capacity Auction (scheduled to open on 31st January 2017) was granted State aid approval by the European Commission on the 5th December 2016.

# Panel of Technical Experts

22. 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. In line with the legislative changes that facilitated the eligibility of interconnectors, the Panel's report<sup>39</sup> commented on the ranges that National Grid recommended for each interconnector.

<sup>&</sup>lt;sup>39</sup> Available at: <u>https://www.gov.uk/government/publications/electricity-market-reform-panel-of-technical-experts-2016-final-report-on-national-gridselectricity-capacity-report-2016</u>

# 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 CCS. 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.
- 3. The Northern Ireland implementing regulations<sup>40</sup>, which clarify detailed aspects of the regime including the arrangements for monitoring and enforcement in Northern Ireland came into effect on 15 March 2016.

<sup>&</sup>lt;sup>40</sup> Available at: <u>http://www.legislation.gov.uk/nisr/2016/28/pdfs/nisr\_20160028\_en.pdf</u>

# 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	¥	1 Dec 2016
successful participants		

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	On track	31 Mar 2017

# Results of Phase I of the EDR Pilot

3. 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 a weighted average bid price of £229/kW. 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 to end of February).

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

- 4. The second EDR Pilot auction<sup>41</sup> took place on 21 January 2016. Funding of £4.7m was offered to 24 lead organisations for 37 individual projects across Great Britain. The projects are currently anticipated to deliver 23.3MW of savings. 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 specify 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.

### **EDR Evaluation**

7. Evaluation is a key component of the EDR pilot scheme. BEIS has put in place a significant external contract for evaluating the pilot. In addition BEIS commissioned a contract to assess the accuracy of the deemed approach to monitoring and verifying kW savings by installing metering equipment.

# Next steps for the EDR pilot

8. As well as continuing to administer the scheme until the end of Phase II in 2018, BEIS is continuing with evaluation activities. The evaluation of the EDR Pilot will provide a robust evidence base so that the Government is able to take decisions about any future EDR policy. It will also be used to fulfil the obligation to report the outcomes of the EDR Pilot to Parliament.

<sup>&</sup>lt;sup>41</sup> Phase II of the pilot was granted State aid approval in February 2016.

# Low Carbon Contracts Company and Electricity Settlements Company

- The LCCC is a Government owned company created to act as the counterparty to, and to manage, CFDs, and also to manage the collection and payment of monies for CFDs. In particular, it is responsible for the management of the competitivelyallocated CFDs and the investment contracts, which were signed under the FIDeR process. The details of these projects are listed on the CFD Register<sup>42</sup>, which is publically available on the LCCC website.
- 2. The Electricity Settlements Company (ESC) is also a Government owned company and its key role is to make capacity payments and to retain overall control of the Capacity Market settlement process.
- 3. 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.
- 4. In the past year, the LCCC has focused on the implementation of CFDs. This has involved:
  - Managing the CFD contracts during their initial stages, including the Milestone Requirement;
  - Setting the quarterly Supplier Obligation Levy; and
  - Commencing CFD settlement services and collecting the operational cost levy.
  - 5. In the past year, the ESC has developed the system for settling payments to and from Capacity Market participants under capacity agreements, and, ahead of the Capacity Market auctions in December 2015 and January 2016, has collected credit cover from Capacity Market participants.

# Glossary

BEIS	Department for Business, Energy and Industrial Strategy
CHP	Combined Heat and Power
CFD	Contract for Difference
CMU	Capacity Market Unit
DSR	Demand Side Response
EDR	Electricity Demand Reduction
Ells	Electricity Intensive Industries
EMR	Electricity Market Reform
EPS	Emissions Performance Standard
ESC	Electricity Settlements Company
FIDeR	Final Investment Decision enabling for Renewables
FIDeR GW	Final Investment Decision enabling for Renewables Gigawatt
GW	Gigawatt
GW kW	Gigawatt Kilowatt
GW kW LCCC	Gigawatt Kilowatt Low Carbon Contracts Company
GW kW LCCC MW	Gigawatt Kilowatt Low Carbon Contracts Company Megawatt
GW kW LCCC MW PV	Gigawatt Kilowatt Low Carbon Contracts Company Megawatt Photovoltaic
GW kW LCCC MW PV RO	Gigawatt Kilowatt Low Carbon Contracts Company Megawatt Photovoltaic Renewables Obligation



© Crown copyright 2016

Department for Business, Energy & Industrial Strategy

