Department
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Climate Change

ELECTRICITY MARKET REFORM ANNUAL UPDATE 2015

October 2015

Electricity Market Reform Annual Update 2015

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Executive summary

This is the second Annual Update on progress made by the Electricity Market Reform (EMR) programme, launched under the last Government. EMR introduced two key mechanisms – Contracts for Difference (CFD) 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.

This document sets out the headline achievements over the past 12 months in the following areas of the EMR programme:

- **The 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 Offtaker of Last Resort** to ensure independent renewable generators have access to the market under the CFD scheme;
- **The Capacity Market** to ensure sufficient reliable capacity during periods of system stress;
- **The Emissions Performance Standard** which implemented a regulatory backstop on the amount of carbon emissions that new fossil fuel power stations are allowed to emit; and
- **The Electricity Demand Reduction** pilot, which provides financial support to organisations for the delivery of electricity capacity savings at peak times.

Key progress since the 2014 update

1. The first **Contracts for Difference (CFD)** auction led to 25 contracts amounting to 2GW of new renewable energy across England, Scotland and Wales[1]. A total of £315m of contracts were offered to five technologies including two new offshore wind farms, 15 onshore wind farms and five new solar projects.

2. **The Final Investment Decision enabling for Renewables (FIDeR)** process supported projects facing investment hiatus ahead of the implementation of EMR. Eight renewable

[1] Available here: www.gov.uk/government/uploads/system/uploads/attachment_data/file/407059/Contracts_for_Difference_-_Auction_Results_-_Official_Statistics.pdf

electricity projects were awarded Investment Contracts (early CFDs) in April 2014. These are two coal to biomass conversions, a dedicated biomass plant with combined heat and power (CHP) and five offshore wind[2] projects.

3. The **Offtaker of Last Resort (OLR)** secondary legislation has come into force and is now operational. The OLR was developed in response to feedback and evidence highlighting the difficulty that independent renewable generators holding CFDs have in securing appropriate Power Purchase Agreements (PPAs). It aims to encourage competition in the PPA market.

4. The first **Capacity Market** auction was successfully concluded in December 2014, contracting for 49.3GW of capacity at a clearing price of £19.40/kW. Just under 65GW of capacity entered the auction, of which 76% received capacity agreements for delivery in 2018/19. The total cost of the capacity procured for 2018/19 in the auction is £0.96bn (in 2012 prices).

5. The implementing regulations for the **Emissions Performance Standard** which clarify detailed aspects of the regime including the arrangements for monitoring and enforcement in England and Wales came into force this year.

6. In the first phase of the **Electricity Demand Reduction Pilot Scheme** led to funding of £1.28 million being awarded to a variety of public and private organisations to deliver electricity savings at peak times by installing more efficient equipment. In the second phase, £6 million of funding will be made available in an auction scheduled for January 2016, subject to State Aid approval.

Deliverable	Achieved	When
Capacity Market auction results	✔	2 January 2015
Electricity Demand Reduction Phase I launched	✔	29 January 2015
Contracts for Difference auction results	✔	26 February 2015
First Contracts for Difference signed	✔	14 March 2015
Electricity Demand Reduction Phase II pilot launched	✔	16 June 2015
Publication of evaluations of Final Investment Decision Enabling for Renewables and Electricity Market Reform and accompanying Government response	✔	15 October 2015

Table 1: Key EMR deliverables achieved since January 2015

[2] A full list of the successful FID Enabling for Renewables projects can be found at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/305781/Successful_Projects.pdf

Contracts for Difference

Introduction

Deliverable	Achieved	When
Amendments to the Allocation Regulations 2014 laid	✔	19 February 2015
Contracts for Difference auction results	✔	26 February 2015
First Contracts for Difference signed	✔	14 March 2015

Table 2: CFD deliverables since February 2015

Contracts for Difference

1. The first allocation round for Contracts for Difference (CFD) was completed in March 2015 with a budget of £325m split across two technology groupings.

Pot 1	**Pot 2**
Onshore wind (>5MW)	Offshore wind
Solar photovoltaic (PV) (>5MW)	Wave
Energy from waste with combined heat and power (CHP)	Tidal stream
Hydro (>5MW and <50MW)	Advanced Conversion Technologies
Landfill gas	Anaerobic digestion
Sewage gas	Dedicated biomass with combined heat and power (CHP)
	Geothermal

Table 3: CFD pot structure

2. The maximum potential budget that could be allocated by National Grid for each delivery year, according to the Valuation Formula defined in the CFD allocation framework, was split as follows:

	Delivery Year[3]					
£m (2011/12 prices)	***15/ 16***	***16/ 17***	***17/ 18***	***18/ 19***	***19/ 20***	***20/ 21***
CFD Budget (2014 release)	50	220	325	325	325	325
Pot 1 (established technologies)	50	65	65	65	65	65
Pot 2 (less established technologies)	-	155	260	260	260	260

Table 4: CFD Budget Release for 2014 Allocation Round (Figures are total support payments available in a given year)

CFD allocation round

The first auction

3. The first allocation round opened on 16 October 2014 and concluded on 27 March 2015. A total of 27 projects were successful in the auction and 25 went onto sign the contract. Further information is available in the CFD Register[4]. These contracts were offered to a range of developers, with sites across Great Britain. The competitive auction drove down the costs to consumers, resulting in the capacity costing up to £105m per year less than it would have done in the absence of competition. If delivered and generate as expected these projects could power 1.4m homes, and could lead to the UK emitting 4.2m fewer tonnes of CO_2 per year (relative to the current generation mix), helping to meet our ambitions on climate change.
4. A total of 11 of the 25 contracts were offered to projects located in Scotland. This totalled almost 1GW of capacity. Four of the 25 contracts were offered to projects in Wales – three onshore and one Advanced Conversion Technology (ACT) project. This totalled 192MW of installed capacity.

Changes to the CFD scheme

5. From 9 March to 20 April 2015, DECC consulted on a series of proposed amendments to the CFD regime to ensure it meets policy objectives for contracts issued in future rounds. A Government Response to the consultation was published on 29 June 2015[5] setting out the Government's decisions on the proposed changes.

6. The Government Response set out the intention to make the following key changes to the CFD Contract:

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

[4] Available here: lowcarboncontracts.uk/cfds

[5] Available here: www.gov.uk/government/consultations/electricity-market-reform-contracts-for-difference-consultation-on-changes-to-the-cfd-contract-cfd-regulations

- Allow unincorporated joint ventures to enter into a CFD;
- Ensure that generators do not have an incentive to generate electricity under negative prices;
- Minor and technical amendments relating to offshore transmission system costs, representations and warranties, undertakings, confidentiality, fuel measurement and sampling, disputes and generation tax, change in law, definitions, metered output, collateral, intellectual property, notices and Annex 4 (Baseload Market Reference Price) of the CFD; and
- Amendments to the Private Network Metering Operational Framework and Technical System Requirements in order to provide generators with greater flexibility in how their metering systems are maintained and also to correct some inconsistencies.

7. The Government Response also confirmed the intention to make a series of changes to the suite of secondary legislation governing CFDs. In summary these are:

- Confirming that a simultaneous application to the Capacity Market and CFD auctions cannot be made;
- Ensuring that a distinction is made between sensitive price information and non-sensitive price information set out in a sealed bid submission;
- Amendments to ensure that the connection requirements applicable to private network operators were set out in secondary legislation; and
- A number of other minor amendments relating to delays, reviews and appeals and pending applications.

The Non-Delivery Disincentive (NDD)

8. The policy detail relating to the Non-Delivery Disincentive (NDD) was confirmed by DECC in January 2015 and implemented through regulations on 26 March 2015[6].
9. The NDD 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.
10. The policy affects any excluded site, namely:
    - Where the applicant failed to sign a CFD ("a non-signature case"), the generating area in respect of which the CFD application was made; and
    - Where a CFD was entered into but the CFD was terminated before the milestone delivery date because the generator failed to deliver the project as required by the CFD terms ("a non-delivery case"), the generating area to which the CFD applied.

11. Exemptions are available where:

[6] Available here: www.gov.uk/government/uploads/system/uploads/attachment_data/file/405332/Government_Response_Consultation_on_Non-Delivery_Disincentive_Exemptions.pdf

- The potential applicant considers it can demonstrate to the satisfaction of the Secretary of State that the site of the generating station to be described under the new application ("the application site") is not materially the same as the excluded site; or
- In a non-delivery case, the CFD was terminated due to a Qualifying Change in Law or Relevant Construction Event (as defined by the CFD Standard Terms and Conditions);
- In a non-signature case or in a non-delivery case the potential applicant who is not the trigger applicant or a corporate associate of the trigger applicant holds a relevant property interest except where that interest has been acquired from a trigger applicant or corporate associate of a trigger applicant;
- In a non-signature case, relevant court proceedings were brought or concluded after the last date by which the trigger applicant was able to withdraw the CFD application and the fact that the proceedings were on-going, or the result of the proceedings, meant that the trigger applicant's ability to deliver under the terms of the CFD contract (had it been entered into) would have been materially affected.

Northern Ireland

12. In 2012 the Northern Ireland Executive gave its initial consent for the CFD and Investment Contracts provisions of the Energy Act 2013 to apply to Northern Ireland, taking into account both Northern Ireland's devolved competencies and its position within the Single Electricity Market in Northern Ireland and the Republic of Ireland. However, due to the ongoing reform of the Single Electricity Market across Ireland, the Government and the Northern Ireland Executive agreed that implementation of the CFD scheme would be delayed in Northern Ireland, with an ambition for it to be available from 2016/2017.

13. DECC and the Department of Enterprise, Trade and Investment (DETI) in Northern Ireland have been working collaboratively on the changes that would be required to the CFD and supplier obligation for implementation in Northern Ireland. In March 2015 DECC issued a Call for Evidence[7] to gather evidence on the issues for implementing the CFD scheme in Northern Ireland. In parallel DETI published a Discussion Paper[8], to seek views on the specific policy issues that implementing the CFD scheme in Northern Ireland would bring for Northern Ireland consumers and renewable electricity generators.

14. A final decision on whether Northern Ireland should become part of a UK-wide CFD is a matter for the Northern Ireland Executive. Following the Secretary of State's announcement in June 2015 of a commitment to end subsidies to new onshore wind across the UK, DETI indicated that it would wait for further clarity on how the commitment will apply to a UK-wide CFD scheme, before putting a decision to the NI Executive on whether or not to join the scheme.

[7] Available here: www.gov.uk/government/consultations/call-for-evidence-implementation-of-contracts-for-difference-and-the-supplier-obligation-in-northern-ireland

[8] Access https://www.detini.gov.uk/ and search for 'CFD Implementation in NI–Strategic issues'

International CFDs

15. The previous Government stated that it was considering the option of extending the CFD scheme to renewable electricity projects located outside Great Britain and connected to the electricity systems of Great Britain (and potentially Northern Ireland if the CFD scheme becomes UK-wide). No decision has been made on whether or not to take this option forward, nor what the timescale for implementation would be.

Awarding the first CFDs: Final Investment Decision Enabling for Renewables

16. The aim of the FID Enabling for Renewables (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 April 2014. These have now been signed and were laid before Parliament on 4 June 2014. This is the first support offered under the EMR programme and it will provide up to £12bn of private sector investment by 2020. These projects include two coal to biomass conversions, a dedicated biomass plant with combined heat and power (CHP) and five offshore wind[9] projects.

17. The European Commission gave State Aid approval to the five offshore wind projects in July 2014 and the dedicated biomass plant with CHP in January 2015. The contracts have now been transferred to the Low Carbon Contracts Company (LCCC).

The CFD Supplier Obligation

18. CFDs are funded through a levy on all licensed electricity suppliers in Great Britain: the CFD Supplier Obligation (SO). The SO became chargeable on 1 April 2015. Subject to State Aid clearance, electricity supplied to eligible Electricity Intensive Industries (EIIs) will not be charged the SO. Similarly, electricity supplied from eligible renewable generators in other EU Member States is also exempt.

19. As required by legislation, the Low Carbon Contracts Company (LCCC) published the first Interim Levy Rate and Total Reserve Amount three months before the start of the first obligation period on 1 April 2015. Following the first CFD allocation round, the figures for the Interim Levy Rate and Total Reserve Amount were revised to £0/MWh and £0 respectively. They remained at zero for the second and third quarterly obligation periods, reflecting the fact that no CFD generation took place during 2015. For the fourth quarterly obligation period (1 January 2016 to 31 March 2016), when CFD generation is expected to start, the LCCC has set the Interim Levy Rate at £0.348/MWh and the Total Reserve Amount at £8,861,112.35.

[9] A full list of the successful FID Enabling for Renewables projects can be found at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/305781/Successful_Projects.pdf

20. The LCCC has published a transparency tool[10] to provide suppliers with the assumptions behind the rates that have been set. They have also published a forecast of expected rates for the following three quarters.

21. A number of changes were made to the Supplier Obligation in the past year. The Electricity Supplier Obligations (Amendment & Excluded Electricity) Regulations came into force in March 2015[11] [12]. These regulations introduced two exemptions from CFD costs for both electricity supplied to electricity intensive industries, and electricity imported from renewable generators in other EU Member States.

22. In September 2015, DECC consulted on further changes to the design of the CFD Supplier Obligation in order to reduce costs to consumers by improving the efficiency and transparency of the scheme.

23. Performance of the supplier obligation will be kept under review, particularly once payments to generators begin to flow in earnest.

Offtaker of Last Resort

24. The secondary legislation bringing the Offtaker of Last Resort (OLR) came into operation in June 2015. Government's intention to implement the policy had been announced in 2014 in time to be considered by bidders for the first CFD allocation round.

25. Modifications to the Standard Conditions of the Electricity Supply Licence to implement OLR were laid in Parliament in December 2014 and the Backstop Power Purchase Agreement (BPPA) contract was published in February 2015.

26. In addition, minor amendments were made to the regulations for OLR and guidance was published for generators that detail how Ofgem will administer the scheme, giving an overview of the scheme, eligibility criteria, how to apply, an outline of the auction and how to enter into a BPPA. At the same time, guidance for suppliers was published, including details on how the OLR process begins, who can participate in the auction, levelisation of costs and management of shortfalls in the levelisation fund. The OLR opened to applications on 1 October 2015.

Renewables Obligation (RO) transition

27. A series of transitional measures were included in the Renewables Obligation Order 2015[13] which was laid in Parliament on 21 July 2015 and is due to come into effect on 1 December 2015, subject to Parliamentary approval. In particular, these new measures will:

    - Provide for a combustion unit which has previously entered into a CFD or investment contract under the FIDeR process to fully convert under the Renewables Obligation

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[10] Transparency tool available here: https://sofm.lowcarboncontracts.uk/ you have to first register on the LCCC website https://lowcarboncontracts.uk/suppliers before gaining access to the Transparency Tool. Once registered, you can navigate to the tool using the link at the beginning of the team.

[11] Available here: www.gov.uk/government/consultations/emr-changes-to-the-cfd-supplier-obligation

[12] Available here: www.gov.uk/government/consultations/supplier-obligation-consequential-amendments-to-the-balancing-and-settlement-code

[13] Available here: www.legislation.gov.uk/ukdsi/2015/9780111138359/contents

(RO) if the contract is terminated for a permitted termination event (such as failure to secure or a delay in securing EU State Aid approval); and

- Set out the requirements for enabling RO accredited biomass combustion units issued with a Capacity Market agreement to claim Renewable Obligation Certificates (ROCs) for co-firing or full conversion under the RO up until the day before the start of the first delivery year to which their capacity agreement relates.

Evolution of the Renewables Obligation

28. The RO closed to new large-scale solar photovoltaic (PV) projects on 1 April 2015 with grace periods up to 31 March 2016 to protect developers who had made significant investments. This was due to large-scale solar deploying much faster than previously expected.

29. Several changes have been made or are being proposed to the RO since last year's EMR Annual Update as part of a wider package of measures to control costs under the demand-led schemes managed under the LCF. These include:

    - Announcement on 18 June 2015 of the Government's intention to introduce primary legislation to close the RO early across Great Britain to new onshore wind generating stations from 1 April 2016 with grace periods[14]. Amendments to the Energy Bill were laid on 8 October setting out the grace period criteria[15].
    - Publication on 22 July 2015 of a six week consultation on changes to financial support for small-scale solar PV[16]. The proposals include early closure of the RO across Great Britain from 1 April 2016 (with grace periods); removal of grandfathering for projects that are not accredited under the RO as of 22 July 2015 (with grace periods) and subject to the results of this consultation, a banding review for solar PV projects of 5MW and below. The Government response is expected to be published later this autumn; and
    - Announcement on 22 July 2015 that the support rate under the RO for new biomass conversion and co-firing projects will no longer be covered by Government's grandfathering policy (with some exceptions)[17]. This action was necessary because of concerns that biomass conversion and co-firing projects were likely to deploy at higher rates than had been budgeted for under the RO.

Remote Island wind

30. Remote Island wind is a distinct technology from either onshore or offshore wind, recognising the unique characteristics of these projects. The UK Government submitted a

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[14] Written Ministerial statement to Parliament at: www.gov.uk/government/speeches/ending-new-subsidies-for-onshore-wind

[15] See announcement on DECC website at: https://www.gov.uk/government/news/best-deal-for-bill-payers-and-investors-as-subsidies-for-onshore-wind-end

[16] Available here: www.gov.uk/government/consultations/changes-to-financial-support-for-solar-pv

[17] See Government response to consultation on changes to grandfathering policy with respect to future biomass co-firing and conversion projects in the Renewables Obligation at : www.gov.uk/government/uploads/system/uploads/attachment_data/file/447327/Biomass_RO_Govt_Response.pdf

State Aid Pre-notification to the European Commission on 14 January 2015 and is working with them to secure approval ahead of a future CFD auction.

CFDs outside usual allocation system

Tidal lagoon

31. The Government is supportive in principle of tidal lagoon technology and in March 2015 moved to a two phase commercial negotiation on a CFD with Tidal Lagoon Power Ltd to establish whether a CFD for a potential tidal lagoon at Swansea Bay is affordable and value for money for consumers. The Government is currently in phase 1 of that negotiation.
32. This first phase of negotiation for a CFD enables the Government to carry out full due diligence on the project and provide the level of detail necessary for a full value for money assessment to be undertaken.
33. A decision on whether to award a contract can only be made further to the successful completion of negotiations and would be subject to strict value for money considerations, the funds available within the LCF at the time of a decision and be subject to State Aid approval. Any CFD would be published once signed, including the strike price and term, having redacted commercially sensitive information.

Hinkley Point C

34. The Government and EDF are working together to finalise the documentation for the Hinkley Point C new nuclear power plant consisting of two European Pressurised Reactors (EPR) providing a combined generation capacity of 3.3GW. The deal is subject to approval by Ministers and must represent value for money. If the project proceeds, Hinkley will generate a stable source of low carbon power to nearly 6 million homes, and will provide up to 25,000 jobs at the peak of construction.
35. The European Commission issued a Decision in October 2014 to approve the State Aid package for Hinkley Point C as being consistent with EU rules. The State Aid case included consideration of both the CFD, which would provide the developer with increased price certainty for the electricity generated by the plant, and the Government Guarantee for the project, which would help unlock debt finance. The initial Government guarantee for Hinkley Point C was announced on 21 September 2015. EDF will also be required to have a Funded Decommissioning Programme in place, with secure financing arrangements, as the Government requires new nuclear power station operators to pay the full costs of decommissioning and their full share of waste management and disposal costs.

Carbon Capture and Storage (CCS)

36. As part of the CCS Commercialisation Programme, work on the Front End Engineering Design (FEED) contracts with the two preferred bidders in the Competition – Shell's Peterhead project in Aberdeenshire and Capture Power Ltd's and National Grid's White Rose project in North Yorkshire – is progressing.

37. Shell received planning permission for the onshore element of the project at Peterhead (the SSE-owned gas-fired station) in June 2015, while the Development Consent Order for the White Rose Oxy-Power Plant is currently in the planning examination stage. The Government continues to negotiate with the two preferred bidders and we expect them to take their Final Investment Decision at the end of 2015, with Government taking decisions shortly afterwards, subject to the projects being affordable and delivering value for money to taxpayers and electricity consumers.

38. The Government is committed to sharing the knowledge from its support to the two projects to help accelerate CCS cost reduction. As part of this the Government has published a number of key knowledge papers on both projects.

39. Further work is underway to develop the necessary framework to encourage wider commercialisation and deployment of CCS and industrial CCS. This includes progressing work on the design of a CCS CFD for projects following the Competition and options for how these may be allocated in future. This work should enable an appropriate suite of enabling architecture to be in place for CCS by 2016. Recognising the importance of investing in future CO_2 storage capacity, the Government has also awarded £2.5m to a project working with industry to appraise appropriate sites[18].

[18] Available at: www.gov.uk/government/collections/carbon-capture-and-storage-knowledge-sharing

Capacity Market

Introduction

Deliverable 2014 Auction	Achieved	When
Capacity Market auction opened	✔	16 Dec 2014
Capacity Market auction results published	✔	02 Jan 2015
Ofgem published final revised Capacity Market Rules	✔	7 July 2015
The Electricity Capacity (Amendment) Regulations 2015 made	✔	23 March 2015
The Electricity Capacity (Amendment) (No. 2) Regulations 2015 made	On track	Autumn 2015

Table 5: First Capacity Market deliverables since December 2014

Deliverable 2015 Auction	Achieved	When
Secretary of State published Auction Parameters for Capacity Market auction and Transitional Arrangements auction	✔	29 Jun 2015
Prequalification for Capacity Market and Transitional Arrangement auctions opened	✔	27 Jul 2015
Prequalification results day	✔	25 Sep 2015
Bid bonds and collateral collected by Electricity Settlements Company ahead of the 2015 capacity auction	On track	Oct/ Nov 2015
Tier 1 and 2 dispute resolution process complete	On track	20 Nov 2015
Capacity Market auction opens	On track	08 Dec 2015
Capacity Market auction results day	On track	Dec 2015
Transitional Arrangement auction opens	On track	26 Jan 2016
Transitional Arrangement auction results day	On track	10 Feb 2016

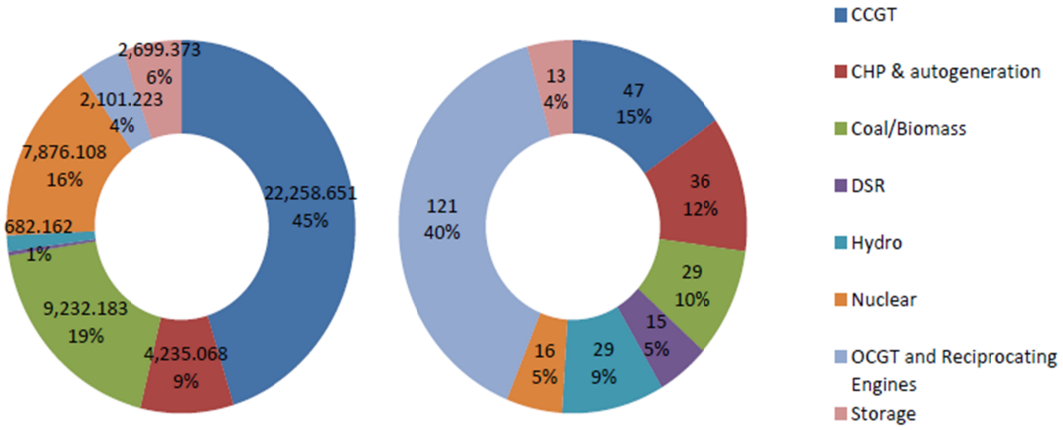
Table 6: Second Capacity Market Deliverables since June 2015

1. The Capacity Market 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 2014

3. The first Capacity Market auction was concluded in December 2014, contracting 49.3GW of capacity at a clearing price of £19.40/kW. Just under 65GW of capacity entered the auction, of which 76% received capacity agreements for delivery in 2018/19. The total cost of the capacity procured for 2018/19 in the auction is £0.96bn (in 2012 prices).
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. The 49.3GW of cleared capacity included 39GW of existing plant, 7GW of refurbished plant and 2.6GW of new build. 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.



6. An initial estimate of the gross average on household costs for this auction is around £11 (in 2012 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. This increased certainty translates as an average of less than £2 per year that bill payers are actually expected to pay, starting in the delivery year 2018/19.
7. 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 2014 pre-qualification the majority of CMUs were successful in overturning the initial prequalification rejections through Tier 1 appeals[19]. One application comprising of 12

[19] Available here: www.ofgem.gov.uk/sites/default/files/docs/2015/06/annual_report_on_the_operation_of_the_cm_final_0.pdf

CMU's was disputed at Tier 2, where the decision to reject that application was maintained[20].

Changes to Capacity Market Rules and Regulations

8. After consultation a series of changes were made to the Capacity Market under the Electricity Capacity (Amendment) Regulations 2015 (made on 23 March 2015)[21]. The most significant change was the new ability for electricity interconnectors to participate in the Capacity Market from 2015 onwards. Other changes included changes to the eligibility of applicants for fifteen-year agreements[22].
9. Following these developments there has been further consultation, resulting in further changes pending in Autumn 2015 under Electricity Capacity (Amendment) (No.2) Regulations 2015. These include an extension of the period in which an applicant must submit credit cover and an amendment regarding the preclusion from participation of CMUs with research grants.

T-4 Auction 2015

10. The second auction will commence on 8 December 2015. It is intended that 47.9GW of capacity will be procured for the delivery year 2019/20, with 45.4GW as a result of the December 2015 auction, and the remaining 2.5GW as the target capacity to procure in 2018, one year ahead of delivery. Table 7 outlines the parameters announced by the Secretary of State[23] for the Capacity Market 2015 auction.

Parameter	Value
Target Capacity for 2015 T-4 auction	45,400MW
Demand curve: Maximum capacity at price cap	43,900MW (Target – 1500MW)
Demand curve: Minimum capacity at £0/kW	46,900MW (Target+1500MW)
Reliability Standard	3 hours/year
Net CONE	£49/kW/yr

[20] Available here: www.ofgem.gov.uk/sites/default/files/docs/2015/02/determination_gfp_201411_0.pdf

[21] Available here: www.legislation.gov.uk/uksi/2015/875/pdfs/uksiem_20150875_en.pdf

[22] Available here: www.gov.uk/government/uploads/system/uploads/attachment_data/file/412934/Government_Response_to_Feb_2015_consultation_on_amendments_to_the_CM_Reg.pdf

[23] Available here: www.gov.uk/government/uploads/system/uploads/attachment_data/file/439232/150629_SoS_NG_Confirmation_of_Capacity_Auction_Parameters.pdf

Price Cap	£75/kW/yr
Price Take Threshold	£25/kW/yr
15-year minimum £/kW threshold	£255/kW
3-year minimum £/kW threshold	£130/kW
Variable or Non-Variable Price auction	Non variable
Base period for Indexation	2014/2015

Table 7 - Parameters for T-4 auction 2015

11. Pre-qualification for the 2015 Capacity Market auction and Transitional Arrangements auction opened on 27 July 2015 and the results were published on 25 September 2015[24].

DSR Transitional Arrangements Auction 2016

12. There will be a Transitional Arrangements (TA) auction on 26 January 2016 to purchase target capacity of 1.5GW for delivery in 2016/17, this will be for DSR and small-scale flexible generation (sub 50MW). This represents an opportunity for the DSR sector to develop and grow over the coming years ahead of the start of the full Capacity Market in 2018. The TA auctions will help DSR play a more important role in helping to secure our electricity system over the coming years. Table 8 shows the Auction Parameters for the 2016 TA auction, determined by the Secretary of State[25].

Parameter	**Value**
Target capacity for 2016 Transitional Arrangements Auction	1500MW
Demand curve coordinate – target volume at price cap	1000MW
Demand curve coordinate – target volume at £0/kW	2000MW
Price cap	£40/kW/yr
Net CONE Proxy	£25/kW
Price Taker Threshold	£15/kW/yr

[24] Available here: www.emrdeliverybody.com/SitePages/Home.aspx

[25] Available here: www.emrdeliverybody.com/Capacity%20Markets%20Document%20Library/Auction%20Guidelines%20July%2015%202015.pdf

Time banded discount to the clearing price	70%
Indexation base period	2014/15

Table 8 – Auction Parameters for Transitional Arrangements auction (in 2014/15 prices)

State Aid

13. Two challenges have been brought against the European Commission's decision 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 judgment is not expected before 2017; until such time, we have State Aid approval for the Capacity Market and will continue to run as planned.

Panel of Technical Experts

14. The Panel of Technical Experts (PTE) 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 PTE report[26] commented on the ranges that National Grid recommended for each interconnector.

[26] Available here: www.gov.uk/government/uploads/system/uploads/attachment_data/file/438714/PTE_2015_ECR_Report_final.pdf

Emissions Performance Standard

Deliverable	Achieved	When
Consultation response on detailed arrangements for fully implementing EPS	✔	14 January 2015
Implementing Regulations came into force	✔	25 March 2015

Table 9: Emissions Performance Standard deliverables achieved since January 2015

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. The Government response to the public consultation issued on 25 September 2014 on the detailed arrangements for fully implementing the EPS was published on 14 January 2015[27].
3. The implementing regulations, which clarify detailed aspects of the regime including the arrangements for monitoring and enforcement in England and Wales came into force on 25 March 2015 and give certainty to investors on the detailed aspects of the EPS regime.
4. The UK is the first country in the EU to adopt an EPS and the Government will review the key elements on a regular basis[28].

[27] Available here: www.gov.uk/government/consultations/implementing-the-emissions-performance-standard

[28] Further information on the EPS can be found on the www.gov.uk website.

Electricity Demand Reduction Pilot Scheme

Introduction

Deliverable	Achieved	When
EDR Phase I Pilot Auction	✔	29 January 2015
Notify Phase I auction outcome	✔	4 February 2015
Pilot Phase II launched	✔	16 June 2015
Phase II Registration deadline	✔	3 September 2015
Phase II application deadline	On track	15 October 2015
Phase II EDR auction	On track	21 January 2016

Table 10: Key Electricity Demand Reduction Pilot scheme deliverables since November 2014

1. The Electricity Demand Reduction (EDR) Pilot Scheme provides financial support to organisations which deliver electricity savings at peak times by installing more efficient equipment.
2. The purpose of the EDR Pilot Scheme is to understand whether capacity savings resulting from the installation of more efficient equipment (which provide lasting rather than temporary reductions) could also participate in the Capacity Market, and to learn lessons for Government and wider stakeholders about the delivery of any enduring scheme. EDR projects 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.

Results of Phase I of the Pilot

3. Phase I of the Pilot, which was for winter peak capacity savings to be delivered in the 2015/16 winter had its Auction on 29 January 2015. Funding of £1.28m was offered to 18 lead organisations for 22 individual projects across Great Britain, subject to signature of a Participant Agreement.
4. A total of £1.28m was allocated in the auction to support at least 5.6 MW of winter peak capacity. The projects awarded funding spanned a range of organisations across the public and private sector at a variety of scales. Lighting and lighting control systems were the most successful technologies in winning bids.

Phase II and lessons learned

5. Phase II of the EDR Pilot was launched on 16 June 2015 with £6m of funding available in an auction scheduled for January 2016, subject to State Aid approval. Full information is available in the Participant Handbook and the Measurement and Verification Manual[29].
6. The scheme has been re-designed to take account of key lessons from Phase I, including:
    - The minimum project size that will be accepted has halved to 50kW;
    - More time is available to install measures, with a choice of delivery of savings either from November 2016 to February 2017 or November 2017 to February 2018, but not both;
    - Allowing greater scope for successful projects to develop over time, so giving an option at the application stage to include unspecified savings that can be bid into the auction, and the ability to make changes to the contracted project as a result of business need;
    - Organisations may bid (and ultimately be contracted for) a lower level of capacity savings than are listed in their approved Measurement and Verification documents. This allows participants the option to help manage their own risk of under-delivery and the consequential reduced payments; and
    - Evidence requirements have been made simpler, including making payback at project level rather than site level.
7. To take part in Phase II of the Pilot organisations had to register on the online portal[30] by 3 September 2015 and had to submit an application by 15 October 2015.

Next steps for the pilot

8. If successful in the Auctions, participants are required to sign and return a Participant Agreement. This will commit them to the delivery of the bid savings, as well as a number of other obligations, including installing and reporting Operational Verification for the measures they bid into the auction, including any capacity not specified at the application stage, measuring and reporting the capacity savings delivered and participating in the evaluation of the EDR Pilot. In exchange for full compliance, the Government pays participants their winning bid price multiplied by the average capacity savings committed to in their successful application. As levels of non-compliance increase, payments are reduced.
9. Evaluation is a key component of the EDR scheme. DECC has put in place a significant external contract for evaluating Phases I and Phase II of the Pilot. The first compliance reports from Phase I are due in March 2016 and Phase II Final reports able to be submitted until December 2018. 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 scheme. It will also be used to fulfil the obligation to report the outcomes of the EDR Pilot to Parliament.

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[29] Available at: www.gov.uk/government/publications/electricity-demand-reduction-pilot-phase-ii-participant-handbook-and-additional-guidance

[30] Available at: itportal.decc.gov.uk/eng/fox/edr/EDR_LOGIN/login

Institutional Frameworks

Delivery body

1. National Grid Electricity Transmission plc was appointed as the Delivery Body for the EMR. It was chosen to help deliver the reforms due to the strong synergies between its current role and the requirements of both CFDs and Capacity Market.
2. The Delivery Body's role is to:
    - Provide analysis to inform Ministers' key decisions, for example, on the level of support for low carbon technologies in the case of CFD and how much capacity to contract for in the case of the Capacity Market; and
    - Administer the two new mechanisms: establishing whether projects meet eligibility criteria to receive CFDs and running auctions for CFDs and Capacity Agreements.
3. Since EMR "Go Live" in August 2014, National Grid has provided the necessary analysis key to the calculation of CFD strike prices and also the volume of generation capacity required for the Capacity Market auction. This analysis was subject to scrutiny from the Panel of Technical Experts. In addition, National Grid has successfully delivered both a Capacity Auction in December 2014 and the first round of CFD allocations at the start of 2015. This was achieved notwithstanding the failure of the IT system initially procured to administer both the capacity mechanism and CFDs which consequently required more manual processing of applications than had been expected, attracting some criticism from industry stakeholders. Since the completion of the rounds National Grid has procured a replacement IT system which after some initial teething problems, has now been deployed for the second capacity auction pre-qualification process.
4. In the case of the CFD allocation, there were three appeals against National Grid's determination of non-qualification for a CFD; Ofgem upheld National Grid's decision in each case.
5. Ofgem is responsible for oversight of National Grid's role as EMR Delivery Body and ensuring it delivers value for money for the consumer. On 17 September 2015, following a consultation process, Ofgem published its decision on revenue, outputs and incentives for National Grid's role as EMR Delivery Body from August 2014 to March 2021, based on the RIIO (Revenue = Incentives + Innovation + Outputs) price control model.

Low Carbon Contracts Company and Electricity Settlements Company

6. The Low Carbon Contracts Company (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

25 competitively allocated CFDs and six investment contracts, which were signed under the FIDeR process. The details of these projects are listed on the CFD Register, which is publically available on the LCCC website.

7. 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.
8. Both the LCCC and ESC are limited by shares and wholly owned by the Secretary of State for Energy and Climate Change. 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.
9. In the past year, the LCCC has focused on the implementation of CFDs. This has involved:
    - Managing the Investment Contracts, transferred to it from DECC;
    - Setting the Supplier Obligation Levy; and
    - Coordinating industry readiness and overseeing the project to implement the EMR settlement system.
10. In the past year, the ESC has overseen the design of the Capacity Market settlement system, and managed the credit cover process for participants in the first Capacity Auction.

EMR Programme update

Introduction

1. The EMR programme has now completed all set up activities and completed first auction and allocation for the Capacity Market and CFDs. Therefore the set up programme has now closed and the Department and delivery partners are moving towards structures and processes to deliver their ongoing routine roles in the Capacity Market and CFDs.

Evaluation and review

EMR and FID Enabling for Renewables evaluations

2. Over the last 12 months, independent process evaluations of the first CFD allocation round and the first Capacity Market auction, as well as early stages of the FID Enabling for Renewables (FIDeR) process have been completed.
3. Both evaluations found that whilst these interventions are still in early stages, available evidence shows that all three mechanisms are achieving their main objectives. The evaluations recommend maintaining the existing policy with no significant changes.
4. The final evaluation reports and, and the Department's response to the findings and recommendations can be found at https://www.gov.uk/government/publications/electricity-market-reform-evaluation

CMA investigation into the GB Energy Market

5. On 26 June 2014 the Gas and Electricity Markets Authority made a referral to the Competition and Markets Authority (CMA) for an investigation into the energy market in Great Britain. The provisional findings from this investigation were published on 7 July 2015. The findings covered the operation of energy markets generally, but also touched on Electricity Market Reform.[31]

[31] Available at: assets.digital.cabinet-office.gov.uk/media/559fc933ed915d1592000050/EMI_provisional_findings_report.pdf

Glossary

ACT	Advanced Conversion Technology
BPPA	Backstop Power Purchase Agreement
CHP	Combined Heat and Power
CFD	Contract for Difference
CM	Capacity Market
CMA	Competition and Markets Authority
CMU	Capacity Market Unit
DECC	Department of Energy and Climate Change
DETI	Department of Enterprise, Trade and Investment
DSR	Demand Side Response
EDR	Electricity Demand Reduction
EIIs	Electricity Intensive Industries
EMR	Electricity Market Reform
EPS	Emissions Performance Standard
ESC	Electricity Settlements Company
EU	European Union
FIDeR	Final Investment Decision enabling for Renewables
GW	Gigawatt
LCCC	Low Carbon Contracts Company
LCF	Levy Control Framework
MW	Megawatt
M&V	Measurement and Verification
NDD	Non-Delivery Disincentive
OLR	Offtaker of Last Resort
PTE	Panel of Technical Experts
PPA	Power Purchase Agreement
PV	Photovoltaic
RO	Renewables Obligation
SO	Supplier Obligation
TA	Transitional Arrangements
UK	United Kingdom

Department of Energy & Climate Change
3 Whitehall Place
London SW1A 2AW
www.gov.uk/decc
URN 15/D444