UK Electricity Market Reform: How far have we come?

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In this note (part 3 of a series) we reflect on the Government’s continuing implementation of Electricity Market Reform (EMR), highlight key developments in 2015 and Q1 and Q2 2016, and outline EMR milestones we expect to occur in the upcoming months. We also discuss the potential impact on EMR of the UK’s recent vote to leave the European Union.

The First Contracts for Difference (CfD) Allocation Round: Update

14 March 2015 saw twenty five CfD contracts (amounting to approximately 2.1GW capacity of new renewable energy) awarded in the first capacity market auction at a total cost of £315 million. Offshore wind was awarded 54% of the total capacity in the first allocation round and a further 35% of total capacity was awarded to 15 onshore wind projects. Wind was the clear winner of the first CfD round having been awarded 89% of the total capacity, the remaining 11% of total capacity was awarded to advanced conversion technology (3%), energy from waste (4.5%) and solar PV (3.5%).

To date, four projects (two wind and two solar) have failed to meet their CfD milestones and have had their CfDs terminated by the Low Carbon Contracts Company (LCCC). Reasons for failure included (i) failing to spend 10% of the expected capital expenditure for the project and (ii) failing to prove that the project had reached financial close and signed equipment contracts by the 27 March 2016 deadline. The Government has also suggested that if a project’s CfD contract is terminated, the generator concerned will be disqualified from participating in future CfD allocation rounds for 13 months although certain exceptions may apply.

The Second CfD Allocation Round: When will it take place? What will the auction budget be?

In July 2015, the Department of Energy and Climate Change (DECC) announced the postponement of CfD auctions for large renewables projects. In addition, the second CfD allocation round did not take place in October 2015 as originally planned.

Rather than making any sort of official statement, DECC communicated the postponement via email, to renewable energy developers simply stating, “[t]here will be no CfD round this October. In the autumn, the Government will set out its plans in respect of the next CfD allocation round”. On 18 November 2015, Amber Rudd, the former Secretary of State for Energy and Climate Change, confirmed that the second CfD allocation round will take place before the end of 2016 and that two other rounds will take place during this parliamentary term.

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1 Twenty seven contracts were originally awarded in the first CfD allocation round but two solar projects were subsequently withdrawn.
In terms of the CfD auction budget, the expectation is that the second round will be allocated to “pot-two” technologies, being less established technologies in need of greater subsidy support. Initial reports suggest that offshore wind projects will take the majority of the available funding. In June 2015 DECC announced that it was considering changes to the CfD renewables support system to create separate CfD auction rounds for established and less-established technologies on the grounds this would allow different technology “pots” to progress through the allocation process at different rates preventing delays in the award of CfDs.

On 4 July 2016, the Government launched a consultation on its proposal to extend the delivery years of CfD projects until 31 March 2026. The consultation will close on 8 August 2016. If the Government’s proposed amendment is not accepted, the Government will be unable to open allocation rounds for projects commissioning after the cut-off date of 31 March 2020.

The Government announced in the 2016 budget that £290 million would be budgeted for the 2016 CfD auction, approximately £35 million less than the CfD budget available for the first allocation round. There was a further suggestion that a total of £730 million would be allocated to CfD auctions for up to 4GW of new capacity in this parliamentary term running until 2020. The postponement of the second allocation round and the lack of clarity as to the dates for subsequent allocation rounds and their respective budgets has left developers in the dark. In addition, the UK’s vote to leave the European Union (EU) may further impact the availability of funding for renewable energy projects casting doubt on the continued expansion of the CfD mechanism.

International CfDs

There have been rumours that the Government may extend the CfD scheme to renewable energy projects located outside Great Britain but connected to the electricity systems of Great Britain. No firm decision has yet been made in this regard.

The results of the EU Referendum give rise to uncertainty surrounding the UK’s commitment and access to the Internal Energy Market (IEM), which in turn may impact interconnector policy. This, we would suggest, throws into doubt any extensions of the CfD Scheme to renewable projects outside Great Britain.

CfD Supplier Obligation: Update

On 1 April 2015, the CfD Supplier Obligation became payable by electricity suppliers. Following the Government’s consultation in September 2014 on the implementation of exemptions for CfD costs, The Electricity Supplier Obligations (Amendment and Excluded Electricity) Regulations 2015 entered into force on 1 April 2015. The regulations, introduced two exemptions from the requirement to pay CfD costs for (i) electricity supplied to electricity intensive industries and (ii) electricity imported from renewable generators in other EU member states. In September, DECC consulted on further changes to the design of the CfD obligation in an attempt to reduce costs to consumers by improving the efficiency and transparency of the CfD scheme. The Government’s response of January 2016 made clear that most of its proposals including (i) for a series of technical amendments to the CfD Supplier Obligation aimed at reducing CfD costs to consumers through incremental changes to the efficiency and transparency of the CfD Supplier Obligation and (ii) changes to the list of sectors eligible for the electricity intensive industries exemption, had been accepted.

Renewables Obligation (RO) to CfD: The transition period

The RO scheme closed to large-scale solar PV generating stations with a capacity greater than 5MW on 1 April 2015. A year later on 1 April 2016, the RO scheme closed to small-scale solar PV generating stations with a capacity below 5MW. With effect from 13 May 2016, the RO scheme closed to all new and additional onshore wind capacity. The RO scheme closes to all new projects on 31 March 2017.

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2 The consultation is available at: https://www.gov.uk/government/consultations/amendment-to-the-contracts-for-difference-allocation-regulations-2014
The Office of Gas and Electricity Markets (Ofgem) has published guidance on the closure of the RO and the overlap of the RO and CfD schemes in the period between 16 October 2014 and 31 March 2017, coined the “transition period”. During the transition period, operators of eligible new generating capacity will have a one-off choice of which scheme they wish to receive support under. There are three particular circumstances where a generator may receive support from both the RO and CfD schemes (a Dual Scheme Facility) namely:

(i) operators of RO-accredited generating stations adding additional capacity ≥ 5MW under the CfD scheme;

(ii) an RO-accredited biomass co-firing station for which Renewable Obligation Certificates (ROCs) have never been claimed, can convert units to biomass under the CfD scheme by withdrawing those units from the RO – the generating station would have units under the RO and biomass conversion units under the CfD scheme; or

(iii) an RO offshore wind generating station where unregistered phases are added under the CfD scheme, becoming an RO-CfD phased project.

If a generating station becomes a Dual Scheme Facility, metering of the RO capacity and CfD capacity must be separate.

Can I no longer gain accreditation under the Renewables Obligation?

The Renewables Obligation Closure Order (2014) provides for a number of grace periods allowing continued RO accreditation for projects after 31 March 2017 up to a longstop date that varies according to the technology in question.

These grace periods provide valuable extra time during which RO accreditation can be obtained but applicants will need to ensure that they can provide the evidence required to support their case for grace period eligibility and comply with the prescribed timescales.

Sustainability Criteria

The Renewables Obligation Order (2015) came into force on 1 December 2015 and introduced the requirement for solid biomass and biogas stations to meet sustainability criteria in order to receive subsidy support under the RO scheme. Similar requirements with respect to sustainability criteria are also contained in the CfD Standard Terms and Conditions, making the UK the first country in Europe to have mandatory sustainability criteria for generation of heat and electricity from biomass.

The Offtaker of Last Resort: Open for applications

In part 2 of this series we remarked on the purpose and role of the Offtaker of Last Resort (OLR) and how it ensures an alternative guaranteed route to market should generators be unable to find purchasers for their electricity through commercial channels.

The ‘backstop’ Power Purchase Agreement (BPPA) setting out the standard terms of the one-year contract that would be entered into between a supplier and an eligible generator under the OLR scheme was published in February last year. In July 2015, The Power Purchase Agreement Scheme (Amendment) Regulations 2015 (SI 2015/1412) which provide for the OLR scheme, came into force. The OLR scheme opened to applications on 1 October 2015 and remains open for generators to draw on as and when they are unable to sell their electricity to commercial buyers in the wholesale market.

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6 The Backstop PPA is available at: https://www.ofgem.gov.uk/publications-and-updates/backstop-power-purchase-agreement-bppa-contract

The OLR application and auction process comprises the following stages:

1. **Generator applies to enter into BPPA**
2. **Ofgem determines eligibility**
3. **Ofgem issues an OLR Notice and opens an OLR auction**
4. **Suppliers submit management fee bid**
5. **Ofgem identifies the successful bidder**
6. **Generator signs the BPPA contract**
7. **BPPA commences**

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The Capacity Market: Update

As we noted in part 2 of this series, the Capacity Market is designed to ensure sufficient reliable capacity by offering payments to generators for being available to provide power and to demand side response (DSR) providers for being able to reduce demand for electricity during times of system stress. The Government views the Capacity Market as the primary tool for delivering energy security.

Since the Capacity Market was introduced in 2014 two Capacity Market Auctions have been held in December 2014 and 2015, for delivery of capacity in 2018/19 and 2019/20 respectively.

**Second Capacity Market Auction and Transitional Capacity Market Auction**

The T-4 Capacity Auction for delivery in 2019/20 was held in December 2015. The aggregate capacity awarded was around 46GW (against a target capacity of 44.665GW⁸), at a final clearing price of £18/kW (2014/15 prices). Over 57GW entered the auction and Capacity Agreements were awarded to 80.30% of the participants.

Similar to the first Capacity Auction, the majority of the Capacity Agreements were awarded to Combined Cycle Gas Turbine (CCGT) plants (an aggregate capacity of 21GW was awarded to CCGT, which equates to 47.05% of total capacity awarded). Nuclear was awarded 16.34% and coal was awarded 10.11%.

Interconnectors also participated in the auction for the first time and were awarded 4.02% of the total procured capacity. In addition, a total of 11MW of capacity exited the T-4 Capacity Auction above the clearing price, with CCGT exiting with the largest overall volume of capacity above the clearing price⁹.

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⁹ For the full results of the T-4 Capacity Market Auction for 2019/20, see https://www.emrdeliverybody.com/Capacity%20Markets%20Document%20Library/T-4%20Final%20Results%202015.pdf
A breakdown of the capacity procured in the second Capacity Market is shown below:

The Capacity Agreements were awarded for durations of 1, 14 or 15 years as shown in the table below:

<table>
<thead>
<tr>
<th>Duration of Capacity Agreement</th>
<th>Capacity (GW)</th>
<th>% of total capacity awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>45.37</td>
<td>97.88</td>
</tr>
<tr>
<td>14 years</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>15 years</td>
<td>0.97</td>
<td>2.09</td>
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</table>

The Transitional Capacity Auction offers targeted support for the DSR sector, which is currently seen as not sufficiently developed to participate and compete against other technologies in the main Capacity Auction. The first Transitional Capacity Auction concluded on 27 January 2016. It awarded over 0.8GW of capacity (against a target capacity of 0.9GW) for delivery in 2016/17 and the clearing price was £27.50/kW (2014/15 prices). The total forecast cost of the Capacity Agreements awarded in the Transitional Capacity Auction is over £22 million. All Capacity Agreements were awarded for a duration of one year each.

The *Electricity Capacity (Amendment Regulations) 2016* will refine the eligibility criteria for the second Transitional Capacity Auction so that it targets genuine demand-shifting and “turn-down” DSR mechanisms, rather than small-scale generation facilities that were awarded many of the Capacity Agreements in the first Transitional Capacity Auction.

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Capacity Market Review

Since the introduction of the Capacity Market in 2014, the energy market conditions have changed – ageing generators in the UK and closures of coal-fired power plants due to lower profitability have led to tighter capacity margins, a problem which is compounded by the Government’s announced intention to close all coal-fired plants by 2025. The Government held a consultation in March 2016 to review the Capacity Market regime to ensure that it is fit for delivering a reliable and uninterrupted supply of electricity. In the Government Response to the March 2016 consultation of gas and coal generator reforms to the Capacity Market, the Government outlined three main reforms to the Capacity Market:

(i) holding an ‘early’ auction to bring forward the first delivery year to 2017/18;

(ii) tightening delivery incentives on those who have agreements to deliver capacity and to penalise those who fail to deliver more severely; and

(iii) buying more capacity, and buying it earlier.

Holding an ‘early’ auction

The recent closure of a number of large power plants has increased security of supply risk. The Government has therefore proposed holding an ‘early’ auction in January 2017 for delivery of capacity in 2017/18. The prequalification window for the ‘early’ Capacity Auction will open on 1 August 2016 and close on 26 August 2016.

The government intends to procure 53.8GW of capacity in the ‘early’ capacity auction. All types of capacity (including existing and new build generation, storage, DSR and interconnectors) will be able to participate in the ‘early’ auction, and it is envisaged that only one year agreements will be available to avoid the risk of over-procurement of capacity.

Tightening delivery incentives

To ensure Capacity Market participants honour their agreements, the Government also intends to implement measures, such as higher termination fees, disqualifying failed units from two years’ of future capacity auctions, and increasing credit cover.

Buying more capacity, and buying it earlier

The Government has expressed its intention to buy more capacity and buy it earlier, in order to manage the increased risks in terms of security of supply in the next decade as increasing numbers of old plants close.

Planned Capacity Market Auctions

In July 2016, the guidelines for the next T-4 Capacity Auction for delivery in 2020/21, Transitional Capacity Auction for delivery in 2017/18 and ‘early’ Capacity Auction for delivery in 2017/18 were published12. The prequalification window for all three Capacity Auctions will open on 1 August 2016 and close on 26 August 2016, with the prequalification results scheduled to be published on 23 September 2016.

The T-4 Capacity Auction for delivery in 2020/21 will target 52GW of capacity and is scheduled to commence on 6 December 2016. The target capacity has been set taking into account, among other things, the fact that certain multi-year agreements awarded in the first T-4 Capacity Auction for delivery have failed to meet the milestones required which means that they may no longer be able to deliver capacity in 2020/21.

The Transitional Capacity Auction for delivery in 2017/18 will target 0.3GW and commence on 22 March 2017.

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The guidelines also state that eligible participants are able to prequalify for all three auctions but one participant may not receive Capacity Agreements under: (i) both the ‘early’ Capacity Auction and Transitional Capacity Auction or (ii) both the T-4 Capacity Auction and Transitional Capacity Auction.

Electricity Demand Reduction (EDR)

The Energy Act 2013 provides for a financial incentive to encourage lasting reductions in electricity demand to be delivered through the Capacity Market. The Government has started a pilot project to test and ascertain whether projects that deliver lasting electricity savings at peak times (e.g. by installing more efficient equipment) could compete for funding with generation, DSR and storage in the Capacity Market.

The auction for Phase 1 of the pilot that targeted winter peak capacity savings to be delivered in the 2015/16 winter took place on 29 January 2015 and £1.28 million was allocated to 18 lead organisations for 22 projects across Great Britain. On 16 June 2015, the second phase of the EDR pilot was launched with £6 million funding available. The phase 2 pilot auction was held on 21 January 2016 in which 24 organisations from across Great Britain were awarded £4.74 million for 37 projects that reduce demand through efficiency at peak times. The successful organisations will be required to deliver peak capacity savings totalling at least 23,370kW across the country from November to February during either 2016/17 or 2017/18. The Government will be closely evaluating the EDR pilot to inform its decision as to whether to develop a future EDR scheme.

Emissions Performance Standard: More clarity for investors?

Regulations implementing the Emissions Performance Standard (EPS) came into force on 25 March 2015, making the UK the first country to adopt an EPS. The EPS acts as a regulatory back-stop on the amount of carbon emissions new fossil fuel power stations are allowed to emit. The EPS limit applies at an individual plant level and is an absolute limit that has been set at a level equivalent to 450g carbon dioxide emissions per kWh if the plant is operating at baseload, pursuant to the formula set out in section 57 of the Energy Act 2013. The Emissions Performance Standard Regulations 2015, inter alia, extend the EPS to certain old fossil fuel power stations and introduce a monitoring and enforcement regime in England.

Putting Flesh on the Bones

A plethora of legislation, regulations, orders and guidance emerged in 2015 and the first half of 2016 to put flesh on the bones of the EMR measures identified in the Energy Act 2013. The key legislation and regulations are listed below:

- The Electricity Capacity (Amendment) Regulations 2015 – came into force on 24 March 2015;
- The Renewables Obligation Closure (Amendment) Order 2015 (SI 2015/920) – came into force on 24 March 2015;
- The Electricity Supplier Obligations (Amendment and Excluded Electricity) Regulations 2015 - came into force on 1 April 2015;
- The Power Purchase Agreement Scheme (Amendment) Regulations 2015 (SI 2015/1412) – regulations 1, 2 and 8(1) came into force on 20 July 2015 and all other regulations came into force on 1 October 2015;
- The Renewables Obligation Order 2015 – came into force on 1 December 2015;
- The Electricity Capacity (Amendment) (No.2) Regulations 2015 – came into force on 4 December 2015;
- The Electricity Supplier Payments (Amendment) Regulations 2016 – came into force on 10 March 2016;

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- *The Renewables Obligation Closure Etc. (Amendment) Order 2016 (SI 2016/457)* – came into force on 25 March 2016; and


### Looking ahead

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
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<tbody>
<tr>
<td>6 December 2016</td>
<td>Third T-4 Capacity Market auction (for delivery of capacity in 2020/21) begins.</td>
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<tr>
<td>By 31 December 2016</td>
<td>Second CfD Allocation Round.</td>
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<tr>
<td>31 January 2017</td>
<td>‘Early’ Capacity Market auction (for delivery of capacity in 2017/18) begins.</td>
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<tr>
<td>22 March 2017</td>
<td>Second Transitional Capacity Auction (for delivery of capacity in 2017/18) begins.</td>
</tr>
<tr>
<td>31 March 2017</td>
<td>The Renewables Obligation closes to all new projects.</td>
</tr>
<tr>
<td>Winter 2017/18</td>
<td>Delivery of ‘early’ capacity.</td>
</tr>
<tr>
<td>Winter 2018/19</td>
<td>Full capacity market begins.</td>
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### Impact of Brexit on the EMR

On 23 June 2016, the UK voted to leave the EU resulting in significant uncertainty with respect to the UK’s relationship with and position vis-à-vis the EU, including the UK’s continued access to the IEM. The UK must serve a notice under Article 50 of the Treaty of Lisbon in order to commence the process of withdrawal from the EU. Such notice will trigger a two year negotiating period, during which the UK and EU will seek to agree the terms of the UK’s withdrawal.

After the negotiating period, the UK will cease to be a member of the EU whether or not a withdrawal agreement has been reached, unless the two-year period is extended by unanimous vote from all members of the European Council. However, until the Article 50 notice has been served and the negotiating period has expired, the UK will remain a member of the EU. This means that EU regulations will continue to have direct effect during the transition period and domestic legislation transposing EU legislation will still remain in force – substantial changes to UK energy and electricity legislation, including those relevant to the EMR, in the near term are therefore not expected.

The shape of UK energy policy and regulation after the transition period will depend, to a large extent, on the resulting relationship between the UK and EU. If the UK remains part of the European Economic Area (EEA), the UK will continue to participate in the IEM but in order to do so, the UK will have to continue to align its domestic legislation with that of the EU and collaborate with the Agency for Cooperation of Energy Regulators and the European Network of Transmission System Operators for Gas (ENTSO-G) and Electricity (ENTSO-E).
If the UK does not remain in the EEA, EU legislation will cease to apply in the UK – in which case, the extent to which the legacy domestic regulation implementing EU legislation will be revoked or amended, and how far the resulting UK legislative framework will diverge from that of the EU is difficult to predict. Much will depend on the post-Brexit government’s priorities in terms of energy and climate change policies of the post-Brexit government.

Conclusion

It is not yet clear how the development of, and regulatory changes stemming from, the EMR will shape the UK’s electricity sector in the next few years, not least given the UK’s vote to leave the EU. The Government is clearly following through on its original plans for reform despite criticism with respect to certain elements of the EMR. As two thirds of existing power stations are due to close by 2030, there will be increasing system stress and generators will need to diversify their power sources and generation technology if the UK is to meet its decarbonisation targets. It remains to be seen whether EMR is up to the challenge.