

What next for UK auctions of renewable Contracts for Difference?

MARCH 2015

In February we saw the results of the first competitive auction for Contracts for Difference (CfDs), the primary support mechanism for incentivising low-carbon generation.

In this briefing we examine the results, and assess the outlook for future allocation rounds up to 2020.

This briefing highlights that:

- the auction clearing prices were lower than the administrative strike prices in both “pots” across every delivery year; there has been effective competition in both pots with prices no more than required to get projects off the ground;
- almost £6.7bn of the available LCF in 2020/21 is projected to be taken up by renewables support without further CfD auctions;
- this is already likely to deliver more than 30% generation from renewables, which is notionally considered the 2020 target for the electricity sector’s share of the Renewables Target;
- as a result the new government may be less likely to allocate further funds to renewable CfDs pre-2020, choosing instead to allocate the remaining funds to CCS projects, or hold funds back to support future nuclear commitments or manage wholesale price risk;
- this creates great policy and market-driven uncertainty about the available funds for future allocation rounds which may give project developers with high upfront development costs cause for concern.

Auction results

In February’s auction CfDs were allocated across two “pots”, one for established technologies, such as solar and onshore wind, and one for emerging technologies, which is primarily offshore wind. Competition in the auction was strong, with only 27% of applicants receiving a contract (based on projected support costs in 2018/19).

The majority of the capacity procured was wind with 749MW (or 35%) onshore wind (most of which is in Scotland) and 1,162 MW (or 54%) offshore wind made up of two projects.

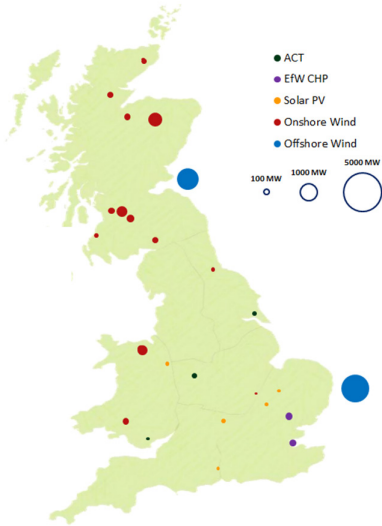
Tom Porter

Partner

LCP

The UK is making strong progress towards renewable targets but whether the government’s appetite will continue is a significant risk for potential developers and investors.

Figure 1. Projects awarded CfDs in the 2015 allocation



The results were disappointing for solar generators with only a small amount of Solar (72 MW) being successful, most of which is in the south of England.

The auction clearing prices showed relatively level prices for the established technologies across start dates from 2016 and a sign of decreasing prices for the emerging technologies from 2017 onwards.

One thing that is clear, is that despite some criticism, the allocation process has resulted in many participants and an apparently competitive process for different technologies, with the clearing prices lower than the administrative strike prices in both “pots” across every delivery year.

This means they are also lower than the earlier allocation of contracts under the Final Investment Decision enabling for Renewables (FIDeR) process. The strike prices awarded to FIDeR offshore projects ranged between £140-150/MWh compared to auction clearing prices of £114-120/MWh for capacity expected to come online over a similar period at the end of the decade. However, we note that one cannot easily compare outcomes from the two processes given the larger quantity and different circumstances of projects being procured under FIDeR relative to the current process.

The one outlier in the allocation results was the price set by two solar projects for delivery in 2015/16 with bids of £50/MWh. It is unclear why these plant bid at such low levels and it would seem unlikely that they will go ahead given all other projects required a price of £80/MWh or higher¹. If this is the case, then none of the allocated contracts are expected to begin generating until 2016/17, which signals a slow start for the CfD regime.

Figure 2. Projects awarded CfDs by technology and start date

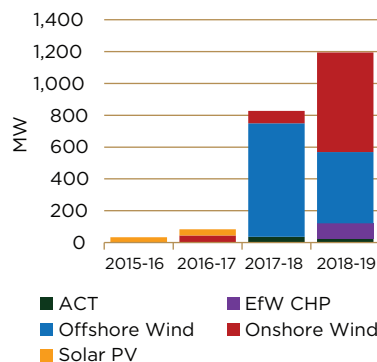
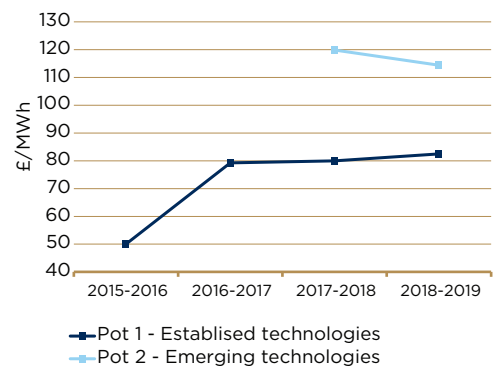


Figure 3. Strike prices by start date



¹If the project does not go ahead at this point they will be prevented from participating in future auctions for a limited period.

Future allocation rounds

Competition here has delivered savings to consumers, and we would expect future allocation rounds to continue to do so. But how much money can we expect to be made available to renewable projects through future allocation rounds up to 2020?

Many commentators viewed the initial allocation of just over £300m from the Levy Control Framework (LCF) in 2020/21 as a cautious start. So does the Government have good reason to exercise such caution and can we expect this to continue in future?

In this section we consider:

- first, how the LCF in 2020/21 has been allocated so far, and what this implies for the gap in renewable generation to meet the 2020 Renewables Target;
- second, what are the competing demands for how the remainder could be spent; and,
- finally, what this might mean for future CfD allocation rounds.

Current projections of LCF spend and renewables generation

We have taken DECC’s most recent published projections of LCF expenditure from the 2014 Annual Energy Statement, and updated them using wholesale price assumptions consistent with the recent auction allocation. From this we can see that almost £6.7bn of funding is already projected to be taken up by renewables support without further CfD auctions, leaving £930m still to allocate.

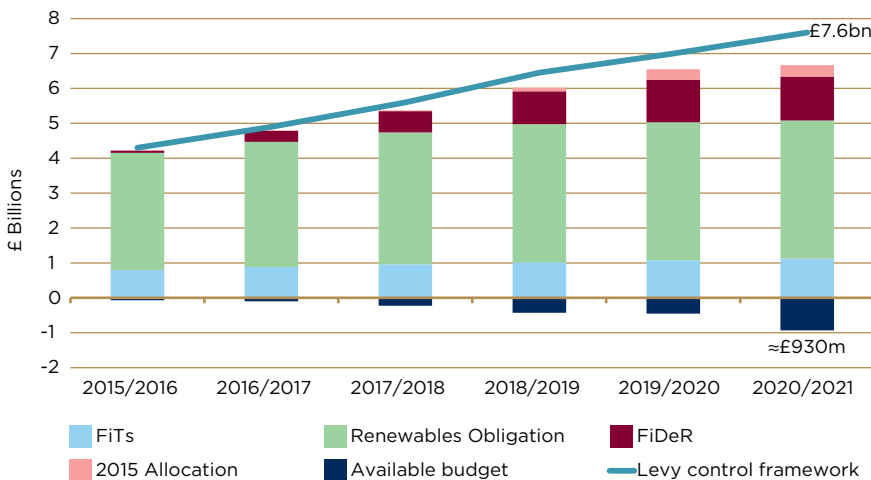
Dan Roberts

Director

Frontier Economics

There have been material customer benefits from the recent allocation process. But significant uncertainty about policy and the availability of funds may hit future projects with high up front development costs.

Figure 4. Central case projection of future LCF payments by policy



Source: DECC Annual Energy Statement 2014

At first sight, this is a healthy sum and could indicate larger renewable CfD allocation rounds to come, which given the high demand for renewable CfDs in the first auction would be welcomed by the renewables industry.

However, in thinking about how the Government may choose to allocate this money, we first need to assess how much renewable generation is needed to meet the 2020 Renewables Target.

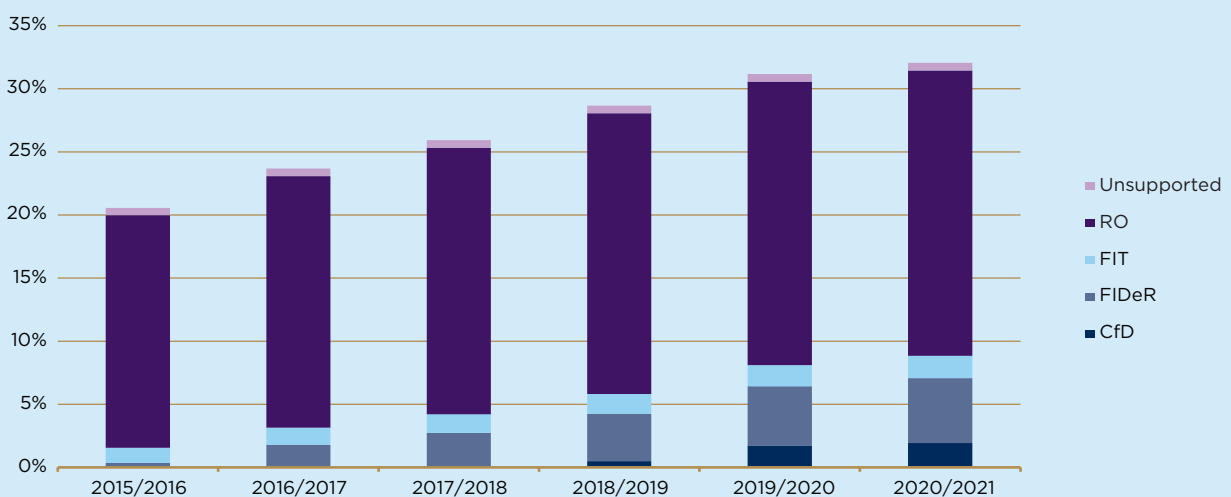
There are not firm sectoral targets across electricity, heat and transport, however, the Government has set its policies using a 30% electricity target. And, on the basis of our analysis of DECC's projected spend, the UK is already set to exceed this level by 2020/21.

Projecting GB renewable generation

We have projected GB renewable generation as a proportion of total generation out to 2020/21, from the following assumptions:

- Maintaining the current levels of renewable generation for committed RO, FiT and unsupported generation.
- Projecting future levels of renewable generation from new RO and FiT plant based on published spend projections, and assuming the current spend to renewable generation ratios are maintained.
- Projecting future levels of renewable generation from FiDeR and allocated CfD plant, based on the load factors assumed in the CfD allocation framework budget calculation.
- Total generation based on DECC's central UEP forecast.

Figure 5. Share of GB generation from renewable sources



Competing demands on the LCF

If the UK can already deliver more than 30% renewable generation, will the Government choose to allocate more money to renewables pre-2020, or now choose to focus elsewhere? The LCF has been designed to support all forms of low-carbon generation including nuclear and Carbon Capture and Storage (CCS). Here we investigate the other competing demands and understand the potential trade-offs.

- **CCS Commercialisation Programme** – there is up to £1bn in capital support (outside of the LCF) available for CCS projects, but there is still likely to be a significant call on the LCF pot should a CCS project be built. It is extremely hard to estimate the level of support, given that this will be the outcome of the procurement process currently underway. However, it is not unreasonable to expect a figure in the region of £400m in 2020/21 assuming that DECC takes forward its two preferred bidders, based on DECC's published levelised cost estimates for CCS.
- **New nuclear plants and Hinkley Point C (HPC) in particular** – if HPC goes ahead, it is not expected to be commissioned until 2023 at the earliest, well outside the current LCF period. However, in 2023 there will need to be sufficient funds available to pay the support costs, which could be in the region of £1bn a year. The LCF must therefore have at least £1bn of available funds in 2023 just to cover the additional costs associated with HPC, let alone fund any additional low-carbon generation. The lack of certainty about the LCF in the 2020s feeds uncertainty pre-2020. In the extreme, a new Government concerned about affordability may not sanction any rise in the LCF post-2020, implying that money needs to be held-back for committed spend post 2020, thereby reducing funds available for other uses pre-2020.
- **Lower wholesale prices** – CfDs pass through changes in wholesale electricity prices to consumers. However, with a fixed budget cap, this effectively means the risk is passed back to future developers in the form of changes to the amount of low-carbon capacity that the Government is able to support. Recent falls in gas prices have lowered wholesale prices and in turn increased the expected costs of all CfD contracts, both those already allocated and any future ones they expect to allocate. DECC may need to hold back at least £200m to pay for the increased cost of its already allocated contracts, and potentially more to take account of increased nuclear and CCS costs.

Impact of wholesale prices on CfD costs

By assuming electricity wholesale prices in line with current market forwards, instead of the assumptions used in the latest CfD allocation round, the cost of already allocated CfD contracts in 2020/21 increases from £1.6bn to £1.7bn. If we assume DECC's low fossil fuel price scenario that figure becomes £1.8bn, an increase of around £200m or 12.5%.

This appears like a relatively small increase in the cost of CfDs, which is not surprising given that the majority of CfD support so far has been for relatively expensive offshore wind. The increase in support payments due to a large percentage fall in the wholesale price is relatively smaller when compared to the overall support costs for an offshore generator.

For example, if the wholesale price falls around 20% from £53/MWh to £43/MWh (roughly the drop between the CfD allocation assumptions and DECC's low scenario), this would increase support payments by £10/MWh for each MWh of generation. But compared to the £100/MWh of support payments for an offshore wind farm with a strike price of £150/MWh, this only represents an increase in support costs of 10%.

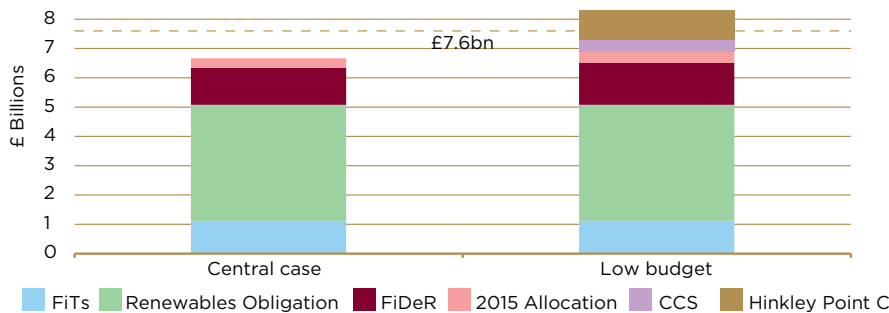
However, while this risk appears relatively small when compared to the cost of already allocated contracts, when compared to the most recent allocation round of £350m, in 2020/21 it looks more material.

What could this mean for future CfD allocation rounds?

This analysis suggests that of the £930m still unallocated from the LCF, there is a plausible scenario where there is no more money allocated to renewable CfDs before 2020. Figure 5 shows how the potential demands on the LCF from CCS, nuclear and lower wholesale prices far exceed its budget cap.

Now it seems likely that there will be more money available pre-2020, but to allocate any money to renewable CfDs, the Government will need to be confident new funds will be available for its new nuclear commitments post-2020, reduce its expenditure on CCS projects, or see a downturn in the expected investment under the RO. The last of which is plausible given recent reductions in wholesale prices.

Figure 6. 2020/2021 Levy Control Framework budget scenarios



Source: Frontier/LCP

Notes: Low budget scenario uses DECC's low wholesale price forecasts.

In addition to the availability of funds, there remains a question about a new government's desire to deliver more renewable electricity pre-2020. In this analysis we have shown that the UK is already projected to deliver over 30% renewable electricity by 2020. So while there is a need to increase the rate of renewable investment at some point in the future to meet the 2050 decarbonisation target, a new Government may choose to delay this to later in the 2020s.

For the Government to choose to allocate available funding to renewable CfDs, and deliver more renewable generation pre-2020 there will need to be an appetite:

- to cover the expected shortfall in the contribution to the Renewables Target from the heat and transport sectors; or,
- to ensure that the renewables industry increases deployment further in this decade as a way of developing supply-chains and reducing costs for the long-term.

These are very much political decisions, the answers to which may well depend on the outcome of the coming election. It is likely that a continued focus on affordability may well lead to small amounts of new funding being allocated to renewables in the coming years.

All of which means that while we have seen the benefits of competition in this most recent allocation round, there remains significant uncertainty about how much will be made available for future rounds. The move to CfDs as part of EMR was supposed to reduce developer risk and so reduce the cost of capital. For market risk and for those who secure a contract, it may do this effectively. However, for those developments with high upfront development costs, the policy risks around actually securing a CfD may still be very significant. This may in the end dissuade some developers from progressing efficient projects, which could in turn see overall costs to customers higher than they need to be.

Contact us

If you would like to discuss any aspects of low carbon support in more detail or any area of our wider services please contact Tom Porter (LCP) or Dan Roberts (Frontier Economics) using the details below.



Tom Porter

Partner

tom.porter@lcp.uk.com

+44 (0)20 7439 3063

Dan Roberts

Director

dan.roberts@frontier-economics.com

+44 (0)20 7031 7000

LCP is a firm of financial, actuarial and business consultants, specialising in the areas of pensions, investment, insurance and business analytics.

Lane Clark & Peacock LLP
London, UK
Tel: +44 (0)20 7439 2266
enquiries@lcp.uk.com

Lane Clark & Peacock LLP
Winchester, UK
Tel: +44 (0)1962 870060
enquiries@lcp.uk.com

Lane Clark & Peacock
Ireland Limited
Dublin, Ireland
Tel: +353 (0)1 614 43 93
enquiries@lcpireland.com

Lane Clark & Peacock
Netherlands B.V.
Utrecht, Netherlands
Tel: +31 (0)30 256 76 30
info@lcpnl.com

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