CFDS – A PERSONAL ASSESSMENT

THIS ARTICLE IS A PERSONAL ASSESSMENT OF THE NEW CONTRACTS FOR DIFFERENCE (CFD) SUPPORT SCHEME FOR LOW CARBON GENERATION, WHICH IS THE BIGGEST CHANGE TO THE UK ELECTRICITY MARKETS SINCE PRIVATISATION IN 1990. BY **CHARLES YATES**, MANAGING DIRECTOR, **CY CONSULTANTS**.

I am a supporter of renewable energy who thinks the CfD will "do the job" but having had a hand in shaping the policy I remain slightly nervous. As a member of DECC's CfD expert panel I argued, sometimes successfully, to take some of the rough edges off the policy. I have also been at the receiving end of forceful views on EMR from some project developers and financiers.

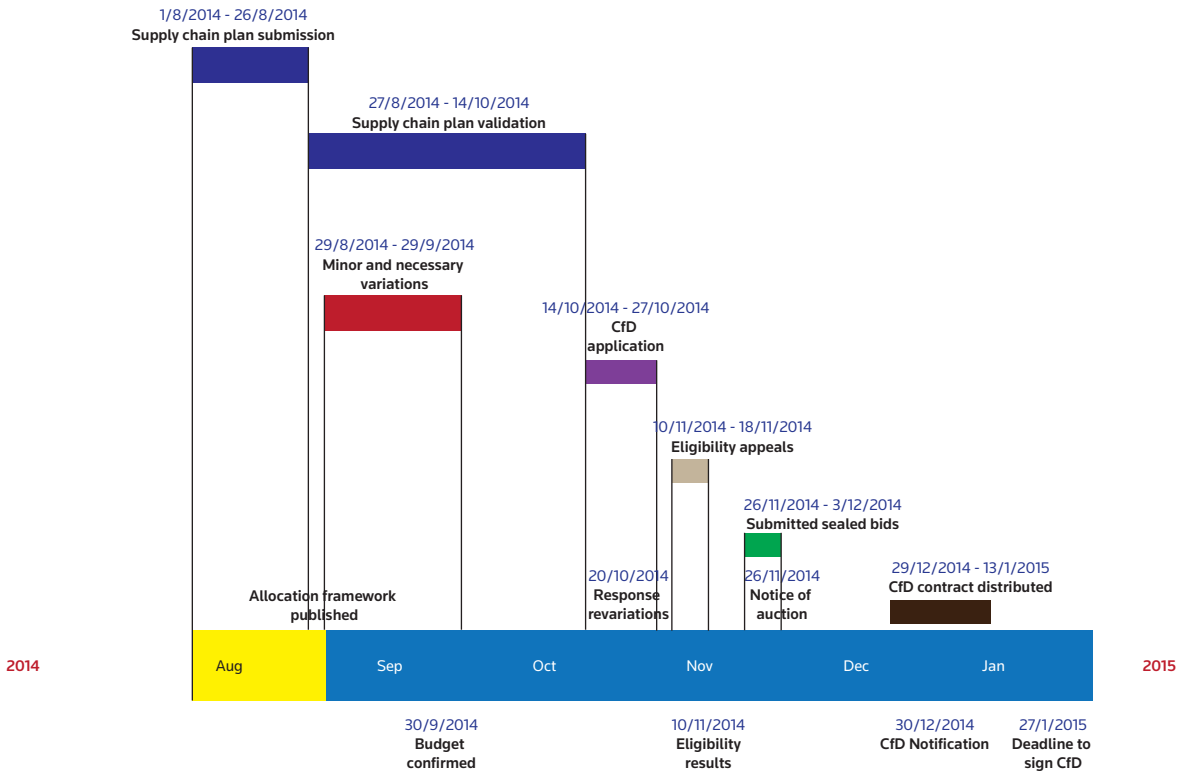
The motivation for writing this article is to contribute to the process of learning lessons and to increase awareness of this new support mechanism. Almost all of the CfD legislation and contracts have been published and the CfD can start to incentivise renewable generation. The timetable for the first CfD allocation round is shown in Figure 1. Although the timetable is tight, project developers and financiers need to get comfortable with CfDs if their impact is to be maximised.

As context, this article provides an overview of the complex Electricity Market Reform (EMR) package with a focus on the CfD as the key part of the package. The Levy Control Framework (LCF) cap of £7.6bn[1] in 2020 on subsidies to renewable energy implies that expenditure under the CfD in that year will be c£2.6bn and growing; while the Renewable Obligation (RO) subsidy payments of c£4.7bn will decline as projects reach the end of their subsidy period.

How did it all start?

It has been a long journey to the point of implementing CfDs. It started with the Government's White paper on EMR[2] published in July 2011 which focused on attracting more than £110m of investment in UK electricity generation and transmission by 2020. The EMR consists of:

FIGURE 1 - CFD 2014 ALLOCATION ROUND TIMETABLE



■ CfDs to replace existing subsidies such as the RO. Under the CfD, the subsidy is the difference between the strike price (which varies by technology) and the market reference price for electricity. The strike prices are likely to be above the reference price for much of the 15-year subsidy period and in that case the difference between the two prices is paid to the generator. However, in a period when the market price is above the strike price, the price difference is paid byt he generator. The result is that the total price received by the generator (market price + CfD) is the strike price;
■ A carbon floor price (CFP) to provide a clear, long-term investment signal for low-carbon generation by putting a firm price on carbon emissions. The original intention was that the CfP would escalate annually and so continually push up the cost of fossil fuel-fired generation. However, concerns regarding energy affordability led to a cap on the CfP of £18 per tonne of CO_2 being introduced in the 2014 budget;
■ An emissions performance standard (EPS), an annual limit on carbon emissions by power stations to reinforce the requirement that no new coal-fired power stations are built without carbon capture and storage (CCS);
■ A new capacity market for the delivery of electricity generation capacity from 2018/19 onwards to ensure that the lights stay on during periods of system stress, eg, periods of low wind during the winter.

Since this consultation much has changed and impacted on the CfD, including a focus on the cost of electricity and the prospect of shale gas being a game changer for UK energy markets. The increase in energy prices over the last few years has significantly increased fuel poverty and drawn attention to the part of the retail electricity price used to subsidise renewable energy.

The cost of these subsidies is a political issue in much of Europe and a number of countries have taken steps to reduce this cost. In the UK, this led to the LCF, which limits the aggregate amount levied from consumers by energy suppliers to fund the CfD and the RO. The LCF cap is such that renewable projects will be competing with each other to win subsidies. The impact in the US of shale gas on energy prices, CO_2 emission and the competiveness of local industry has encouraged policy makers to expect gas to be an important part of the future generation mix.

The European Union (EU) plays an important and growing role in UK energy policy. EU 2020 renewable energy targets have been a foundation stone of policy since they were set in 2007. More recently, the EU has intervened on state aid grounds as it seeks to prevent renewable subsidies distorting economic competition across Europe.

The EU has influenced key aspects of the CfD, such as the 15-year subsidy period, and using competition among projects and technologies to allocate subsidies. It is expected that the first CfD allocation round will take the form of two auctions (see box) with CfDs being awarded to the projects requiring the lowest level of subsidy.

Bidding for CfDs is now a pressing issue as the application process is open, bids are due by December 3 2014 and the first CfD payments will be made on April 29 2015. As preparation for the bids, developers will want to have access to funding and a power purchase agreement (PPA) as well as develop their auction strategy.

For energy suppliers there are systems and procedures to be put in place to collect levies from consumers and pay them to the new Low Carbon Contract Company (LCCC). Government, supported by National Grid and others, has to finalise the auction systems and get the LCCC fully operational. The response by utilities and investors to the CfDs is complicated by the heightened level of policy uncertainty in the run up to the UK election on May 7 2015.

Assessment

Although the CfD allocation process has not yet been tested there is sufficient clarity on the shape of the policy to allow an initial assessment to be made.

Pros

■ Auctions, other things being equal, will drive down project costs and subsidies, which is a prerequisite for a sustainable renewables industry. However, greater ambition and forward visibility of policy and budgets would greatly support the development of the industry, help promote innovation and drive down costs;
■ The fixed strike prices paid to generators under the CfD take away the energy price risk that the private sector can only partially hedge and has to price for under the RO;
■ The Offtaker of Last Resort introduced as part of EMR provides a guaranteed route to market and will facilitate banks being more flexible about PPA providers and the term of PPAs. This is particularly helpful for small developers and community projects;
■ The LCF provides a transparent budgetary envelope in which the industry can plan and gives a level of expenditure that can be defended against reductions whenever the issue of electricity affordability comes to the fore;
■ Developers with long planning horizons and deep pockets (eg, offshore wind) can lock in CfDs for future years, which encourages investment in project development.

Cons

■ Auction risk is significant but hard to assess. How much time and effort will be invested in losing projects?;

■ The process of shifting from the familiar RO to the novel CfD is long, complex and costly, with inevitable unintended consequences;
■ Closing the RO is artificially accelerating some projects, particularly Solar PV projects, and by increasing the peaks and troughs of the project pipeline are pushing up costs and inhibiting development of the supply chain;
■ The LCF budget is less than the industry has been hoping for and DECC seems to be particularly cautious in setting the draft budget for the first two CfD allocation rounds. However, the recent reduction in the load factor DECC uses for CfD budget forecasting makes slightly more capacity affordable. The Pot 2 draft budget of £155m will not bring forward more than one c500MW offshore wind farm, which is sub-scale for a new offshore project;
■ There is a significant risk that the LCF cap is not high enough to deliver our 2020 target of 30% renewable electricity;
■ The execution of the policy, including the complex allocation processes and the arrangements for collecting and then paying the subsidies, feels rushed and further developments following the first allocation round are inevitable.

Overall, my view is that the CfD is not perfect and it is not clear that the RO needed to be replaced. However, the CfD is good enough and we should focus now on refining it to drive forward cost-effective renewable projects. The LCF is a necessary evil and while I would like the budget to be bigger I recognise that expenditure on carbon subsidies has to be balanced against other calls on public expenditure. Finally, the most pressing task is to prepare for a successful first allocation round.

CfD auctions will be complex

Government policy is to allocate CfDs by competitive, sealed bid auction once the total value of CfDs applied for is greater than the budget under the LCF. The limited draft budget for the 2014 CfD allocation round strongly suggests that both technology pots will be subject to auctions. The two technology pots will have separate auctions and comprise:

■ Pot 1 is for "established technologies" including onshore wind, solar PV and biomass conversion. The draft budget for Pot 1 in the 2014 allocation round is £50m;
■ Pot 2 is for "less established technologies" including offshore wind and dedicated biomass. The draft budget for Pot 2 in the 2014 allocation round is £155m.

CfD auctions introduce an important new risk for renewable developers, that they devote time and resources to getting planning permission and a connection agreement for their projects but are not awarded CfDs. Particularly in this round, it will be hard to assess and manage this risk as these are the first auctions of their kind, many developers have not had enough time to prepare thoroughly and the competitive dynamics between technologies are hard to predict.

The differences between technologies in terms of scale, project development timeframes, risk profile and technology maturity all add to the difficulty of predicting how others will bid, and hence your best strategy.

Where they can, many renewable developers are staying away from the CfD initially and are applying for the RO. A case in point is Solar PV developers. A government consultation on closing the RO to new PV projects on March 31 2015 has caused a frantic rush to get projects approved under the RO and is driving up the cost of land options and installation contracts. Sticking with the RO avoids the auction risk, and will give project sponsors and bankers time to get comfortable with the CfD documentation and the credit risk of the LCCC, which will pay the subsidies to the generators.

Positively, auction winners are paid the market clearing price, subject to a cap at the strike price for their technology, which significantly reduces the "winners curse" of receiving a subsidy that turns out to be insufficient to make the project profitable. It is only the marginal bidder(s) that will receive the price they bid while other bidders will receive a higher price than their bids.

The complexity of bidding in the CfD auctions is compounded as bidders are required to decide their bid price and also:

■ The number of bids they submit; up to 10 bids can be submitted per project;
■ The subsidy year for which they bid; some projects will have flexibility on timing and may wish to bid for years in which they expect there to be greater headroom in the CfD budget:
■ The size of the project in MWs; if the project delivered is significantly smaller than that bid, then the subsidy may be reduced to avoid projects being brought to the bid stage that are never fully built and sterilise part of the CfD budget.

To maximise the expected profit from a project, bidders need an auction strategy including sound analysis of project economics under the CfD, and the timing and size of any bid(s).

Footnotes

1 - HM Treasury has set expenditure caps under the LCF in real terms (2011/12 prices).
2 - See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48129/2176-emr-white-paper.pdf

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