Uncertain future for UK large-scale solar power plants if Contracts for Difference scheme fails to deliver

Solar auctions | The proposed closure of the UK's Renewable Obligation programme to solar from next March would leave the Contracts for Difference programme as the only form of support for large-scale PV. Finlay Colville looks at the prospects for an auction-based system taking off in the UK

Credit: Lightsource Renewable Energy

The past few years have seen the UK's large-scale solar industry become of global significance, due exclusively to the Renewable Obligations Certificates (ROCs) on offer to solar. This incentive-based platform has seen the UK move to a multi-gigawatt market, with many overseas engineering procurement and construction (EPC) companies targeting the domestic market.

During 2014, the UK solar industry added 2.55GW, of which 1.85GW came from utility-scale projects. The contribution from ground-mounted ROCs was 1.83GW, highlighting the importance of PV power plants in the UK. In fact, during the first quarter of 2015 (Q1'15), a staggering 2.38GW of ROC-incentivised solar plants was commissioned, ahead of the ROC reduction level cut-off for 1.4ROCs/MWh on 31 March 2015.

However, the RO scheme – which has been in existence since 2002 – is due to finish on 31 March 2017, or 12 months earlier depending on the outcome of ongoing policy proposals, leaving the recently introduced Contracts for Difference (CfD) mechanism as the only incentivised route for large-scale solar power plants. Therefore, in terms of speculating on the long-term prospects for large-scale ground-mount solar plants in the UK, it is the CfD scheme, and not ROCs, that needs to be considered carefully.

Solar's contribution to the first CfD auction round

While the UK government's intentions to shift funding for renewables from ROCs to the CfD scheme have been known about for some time, few in the UK solar industry had given the CfD scheme much thought until 2014. This was due to the fact that, at the start of 2014, the RO scheme was expected to be available to solar, with no capacity cap in the size of solar sites, until 31 March 2017.

The continuation of the UK's recent large-scale solar boom has been cast into doubt by the early introduction of the action-based CfD scheme.

Therefore, solar plant developers, and asset holders, were imagining a period of another three years of being able to build, own and operate large-scale solar plants that would be financed through ROCs, so long as they were commissioned before 31 March 2017. Why bother about the more complicated and risky auction and capacity-limited CfD scheme, until it was the only option available?

But in May 2014, this all changed when the UK's Department of Energy & Climate Change (DECC) announced that solar plants above 5MW in size would no longer qualify for ROC incentives, if built after 31 March 2015. With the exception of some projects that qualified under 'grace' criteria, this effectively closed the RO scheme to large-scale solar plants (>5MW) some two years earlier than expected. Adding to that, in July energy secretary, Amber Rudd outined proposals to close the RO to sub-5MW projects from April 2016.

As such, the previously expected transition from RO to CfD for large-scale solar plants on 1 April 2017 was brought forward by two years, to 1 April 2015. Consequently, the first CfD auction, planned for October 2014, then became a somewhat premature and rude awakening for the solar industry.

Between May and October 2014, debate and discussions within the UK's solar industry regarding the first CfD auction process late in 2014 dominated many internal company agendas and trade meetings. Many speculated on how much solar would be included in the 2014 CfD round, when announced at the start of 2015, or what the split would be between solar and onshore wind.

The reality was very different. The first CfD auction came and went, and very little changed regarding the future prospects for solar plants in the UK. Confusion reigned both within the industry and across external stakeholders, when only a handful of solar sites/developers received letters of offer earlier this year. And even greater surprise was to be found in the very low strike prices offered by some developers, at prices that were clearly well below the break-even point of profitability.

So, what went wrong? To understand this, it is important to review the specific timing of the first CfD round, in relation to

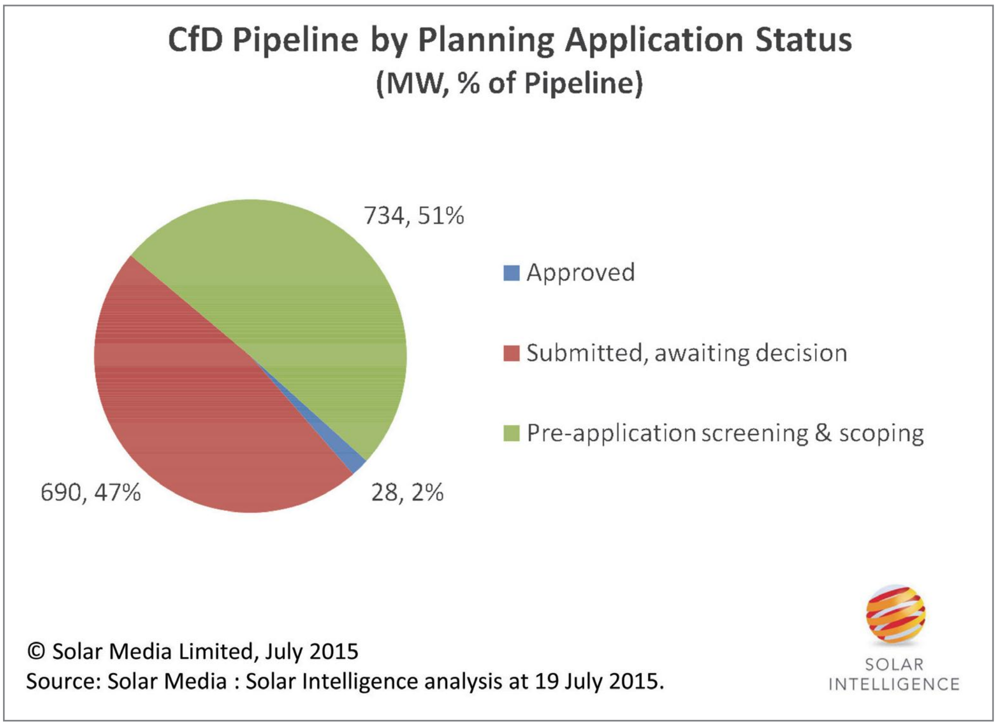

Figure 1: By the middle of July 2015, almost 1.5GW of prospective solar plants have been identified as likely candidates for possible submission within a forthcoming Contracts for Difference auction. Almost half of these have yet to be submitted to the planning process, with about 690MW awaiting local planning authority approval. Source: Solar Media Limited, 2015.

DECC's policy changes to large-scale solar under the RO scheme in May 2014. Simply to enter the CfD process, it is necessary to have several site-specific conditions satisfied, the most important of which is planning application consent.

Within this context, during the period June to September 2014, almost any large-scale solar plant that had received planning consent was almost certainly looking to build under 1.4ROCs (expiring on 31 March 2015) or during the subsequent fiscal year at 1.3ROCs. Furthermore, one of the key grace conditions imposed on the industry for large-scale solar plants above 5MW that could qualify for 1.3ROCs if constructed in the fiscal year ending 31 March 2016, was that planning applications were validated on or before 15 May 2014.

As a result, the vast majority of solar plants above 5MW that had come out of the planning application process during June to September 2014 had almost certainly been submitted to planning before 15 May 2014. So, in effect, the RO scheme was available to them, if the site could get built before 31 March 2016, based on 1.4ROCs before 31 March 2015 or grace-compliant 1.3ROCs before 31 March 2016. In short, why even bother putting these sites into a lowest-offer auction process in October 2014, if ROCs are still on the table – double-dipping across the RO and CfD schemes being prohibited?

The first CfD auction largely came and went for the UK solar industry at the end of 2014, and all focus was on building large-scale solar power plants during Q1'15 and if that did not work out, putting them in the bank for RO grace-compliancy during the fiscal year ending 31 March 2016.

CfD auction prospects

At the time of preparing this article, the next CfD auction looks likely to be pushed out to 2016, although the exact dates for applications are yet to be announced. At around the same as proposing to close the RO to sub-5MW projects, Rudd was unable to give any firm commitments to when round two would be. But assuming a second round is at some stage on the cards, how have things changed since the first CfD auction in 2014?

As it turns out, the landscape is actually much clearer, in terms of pinpointing the sites and developers that are lining up for CfD submissions. In simple terms, large-scale applications (nominally above 10MW) that have gone into the planning process from January 2015 onwards can only have one possible incentive route – CfDs. (A few anomalies exist related to multiple sub-5MW cluster site proposals and dual RO/FiT sites.)

So, let's look at the projects that are being earmarked for CfD submission. In contrast to the 2014 CfD round, where large-scale sites were being held back for ROCs, it is now thought that the CfD route is essentially favouring economy-of-scale in site size. So, only projects above 20MW in size are considered in the analysis below.

Figure 1 shows the breakdown of the CfD candidate sites, as of July 2015, lined up as prospective sites for auction submission. The pie chart contains 1.45GW of solar plants, across various stages of planning application status, including application approval (required for CfD submission), application submission, and pre-application screening/scoping.

Interestingly, right now, only one site above 20MW has got planning approval. Some 22 sites, adding up to 690MW, are still awaiting planning application outcome. Completing the 1.45GW are 18 sites adding up to 734MW that have been subject to pre-application screening and scoping over the past six months.

Therefore, while 1.45GW may sound a commendable capacity of CfD prospects, the reality is a much smaller submission stack. Taking the approved site, and half of the awaiting-decision applications, then there is potentially about 400MW of >20MW solar plants in the UK that could be entered into a CfD round in 2015 if – however unlikely – that were to take place in the next few months. With submissions having to bid on strike price and intended year of CfD allocation, this is certainly not sending out a great signal for CfDs being the natural successor for solar plants after the RO scheme.

Reliance on CfDs casts doubt over new UK solar plants

Given the somewhat lukewarm pipeline of CfD entries in 2015 in the face of ROs being phased out for large-scale solar plants in the UK, is there something else holding back developers from being proactive in stacking up application prospects? Why is the whole industry not starting to find a larger number of sites for the forthcoming CfD rounds?

The answer to this is rather complex and is more a consequence of the distrust that currently exists between the industry and a government that has yet to indicate its support for large-scale solar plants in the UK. The climate for solar and other renewables does not look good in the UK right now.

Therefore, perhaps the modus operandi of developers of solar plants is simply to build as much under 1.3ROCs as possible, and then anything else after 31 March 2016 is simply a bonus.

Moving to a capacity-based auction process, such as CfDs, has to be based upon the intent to add capacity in the first place. In the UK, however, this is far from the case. What becomes available from CfDs for large-scale solar plants may be greatly curtailed, based upon the solar industry's success in capitalising on the RO scheme. Both the ROs and the CfDs, in addition to the rooftop incentive vehicle for solar under the feed-in tariff, come from a single Treasury purse, capped by the Levy Control Framework (LCF). Runaway success in any of these funding schemes ultimately impacts the budget available for the others.

With the government currently under pressure to address potential overspend within the LCF, the automatic reaction would appear to be one of budget overspend recovery, as opposed to reviewing specifically why renewable energy was originally on the table in the first place. Upon re-election, the Conservative government is committed to show the electorate that cost savings within the government and the public sector are top of the election manifesto pledges. And in this respect, any budget overspend from the first (coalition) term is only going to be targeted as easy pickings.

So, uncertainty is by far the order of the day for future large-scale solar plants under CfDs within the UK. If ever the industry needed a champion within the government, that time is now. The next few months will be critical for potential deployment for solar plants in the UK, funded through CfDs, and central to this is the timing, scope and qualification criteria for submissions. The solar industry in the UK has successfully navigated frequent policy adjustments in the past, but the future is simply too hard to call. ■

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