

Low Carbon Contracts Company (LCCC) Contracts for Difference (CfD) Masterclass, 20 April 2021

The below questions were submitted via the Q&A function in Zoom during LCCC's introductory masterclass webinar. Questions that were answered during the webinar can be viewed from 1:11:08 in the recording. Due to time constraints, it was not possible to address all questions during the session; however answers to all of the questions submitted can be found in this document.

Questions

1. Would you consider stepping away from the CfD mechanisms as a price/revenue stabilizing element to bring in more renewable capacities?
2. Could you clarify what will be on the new AR4 CfD allocation portal, will it just replicate everything going forward from BEIS, LCCC, Ofgem, EMR delivery body individual pages so it's in one place, but not bring in anything historical that may still apply/has not changed, or will they be updated this time?
3. Please explain how bid prices are indexed back to 2012 prices.
4. Is there an easy way to convert to 2012 prices, I am not good at math, is there a simple scaling factor I can use each year? Can you please give some advice here.
5. 2012 prices again, thank you for the context, that is clearer now, but concerning the math, can you offer advice to convert 2012 to present value prices? Or where to go for finding conversion factors?
6. Can I be clear that there is a period of 3-5 years, +1 year for construction post award of CfD during which time projects can be fully consented and grid connection secured in order to maintain the CfD award? Or are these pre-requisites before bid? What is the penalty if the above are not secured?
7. Is project installed capacity (MW) strictly limited by capacity defined in planning approval? Typically, with onshore wind, it is possible (and permissible) to install a larger capacity than that which has been defined in a planning approval.
8. When do you have to have achieved planning permission to bid for a CfD?
9. For inland sites, is Planning Consent (s36, TCPA, DCO) required for the AR4 application, or bid, or can they be part of the MDD/OCP milestones?
10. Is project capacity for solar referring to the AC or DC capacity?
11. Is there transparency on whether projects have reached MDD?
12. Given the low bid prices of fixed offshore wind and the trend for a return in money to consumers (i.e. no budget impact), what could the potential motives be for a capacity cap on offshore wind? Especially if the strike price was marginal compared to the reference price. Is it more about controlling levels of intermittent variation?
13. Is it possible to change the "Facility Description" after ICP? For example, if turbine size changes between bid and construction.
14. It says on the website that these events will run up until the opening of AR4. On what frequency will the events run? And what topics will future events cover?
15. Is the longstop date for tidal also 12 months?
16. In previous rounds what contract changes have been accommodated by LCCC in the 20-day post-auction contract signing window (beyond any M&N changes agreed prior to the auction bid)?
17. It seems bizarre to have a shorter longstop (ie 12 months) for technologies less mature than fixed offshore wind where it's 24 months, e.g. floating offshore wind and marine renewables.

18. Is there a formal deadline to meet RIC? Or it just needs to be done to give enough time for FIC to be declared before end of LSP?
19. Upon securing a CfD for a declared project installed capacity, is the generator bound under contract to generate and export the that agreed capacity into the Grid or there is flexibility for the generator to enter into Power Purchase agreements/Private Wire arrangements with industrial/other Customers even after CfD award?
20. Can generators secure CfDs for energy from waste projects, either as traditional grate technology or advanced gasification type technologies?
21. What penalties will the generator have if they fail to meet the milestones and ultimately if they decide to break the contract?
22. Is the Non-Delivery Disincentive (NDD) applied to i) the applying company or ii) to the site defined by the co-ordinates in application? If ii), can you clarify if it is applied to the co-ordinates specified in the Application or at ICP (noting that the site awarded maybe smaller than that applied for).
23. How frequently are top-up payments to generators (or from generators) made, i.e. daily/monthly?
24. If the CfD does not respond when prices are negative it would seem to still leave a material risk for lenders and undermine the ability to gain project finance thereby undermining the purpose of bringing generation to market?
25. Slide 57 indicated AR4 will be comprised of an auction for pot 1, 2 and 3. Has this been confirmed?
26. Do you foresee green hydrogen being included in a pot for AR4?
27. If we intend on building a wind farm in two phases, could this be applied for as a combined CfD under AR4?
28. Is FMS applicable to hydrogen?
29. What are the examples of Advanced Conversion Technologies?
30. National Grid will soon lose its role as the ESO and a new ISO will be established to avoid conflicts of interest. Will NG handle the entire AR4 process, or will there be more regulatory oversight from Ofgem or BEIS?
31. Payments seem to be based around a variable market price – is there a mechanism for payment around a fixed price PPA?
32. BSUoS volatility is a pass-through cost in CfD. Why is TNUoS volatility not a pass-through cost in CfD?
Thanks.
33. Is there a minimum MW threshold for gaining a CfD?

Answers

1. Would you consider stepping away from the CfD mechanisms as a price/revenue stabilizing element to bring in more renewable capacities?

This question around policy is better directed to BEIS; questions on policy can be directed to BEIS via the 'Contact Us' form on [cfdallocationround.uk](https://www.cfdallocationround.uk) by choosing 'General Policy' from the 'Type of enquiry' dropdown.

2. Could you clarify what will be on the new AR4 CfD allocation portal, will it just replicate everything going forward from BEIS, LCCC, Ofgem, EMR delivery body individual pages so it's in one place, but not bring in anything historical that may still apply/has not changed, or will they be updated this time?

The AR4 portal is now live at cfdallocationround.uk. Everyone is welcome to explore it and can sign up to notifications when it is updated with new information. The aim of the site is to gather all relevant information for AR4 in one place. Information about previous allocation rounds will not be featured on this portal.

3. Please explain how bid prices are indexed back to 2012 prices.

The Allocation Framework document will publish Strike Prices for the respective round in 2012 prices – please refer to the [CfD Allocation Round 3 Allocation Framework document from 2019](#) for an example from AR3.

4. Is there an easy way to convert to 2012 prices, I am not good at math, is there a simple scaling factor I can use each year? Can you please give some advice here.

Further to the response at question 3, please refer to LCCC's [Guidance on Strike Price Adjustments under Contracts for Difference and Investment Contracts](#) for an explanation of Strike Price adjustments.

5. 2012 prices again, thank you for the context, that is clearer now, but concerning the math, can you offer advice to convert 2012 to present value prices? Or where to go for finding conversion factors?

LCCC performs the Strike Price Adjustment calculations annually. These are communicated via SPA Notices at the start of April. Strike Prices are adjusted for CPI, BSUoS and TLM, the latter two being of relevance to transmission connected projects. For further detail, please refer to LCCC's [Guidance on Strike Price Adjustments under Contracts for Difference and Investment Contracts](#) for an explanation of Strike Price adjustments.

6. Can I be clear that there is a period of 3-5 years, +1 year for construction post award of CfD during which time projects can be fully consented and grid connection secured in order to maintain the CfD award? Or are these pre-requisites before bid? What is the penalty if the above are not secured?

For the determination of eligibility at the application stage (carried out by the Delivery Body, NG ESO), a number of documents are ordinarily required to evidence relevant permissions, permits and grid connection. For Allocation Round 3, the requirement and suggested documentary evidence were outlined within the [CfD Allocation Round 3 Allocation Framework 2019](#) published by BEIS. The equivalent document for Allocation Round 4 is expected to be published by BEIS in due course. Where the qualification criteria are not met by an applicant, then the application will be deemed non-qualifying. Only qualifying applications will be able to progress to participate in the allocation process. Sealed bid submissions form part of the allocation process.

Wider regulations, as well as certain project milestones under the CfD contract itself post-award, are likely to require that projects acquire the necessary full consents and connections prior to a Start Date. Where these are not secured, then under the CfD contract, the project may be at risk of termination. Further information on pre-requisites can be found at the [EMR Delivery Body website](#).

7. Is project installed capacity (MW) strictly limited by capacity defined in planning approval? Typically, with onshore wind, it is possible (and permissible) to install a larger capacity than that which has been defined in a planning approval.

The installed capacity committed to in the CfD (namely the Initial Installed Capacity) can be reduced in accordance with the CfD terms. Where a Generator wishes to increase the capacity beyond the Initial Installed Capacity or Installed Capacity, the additional capacity must be separately metered and therefore not be subject to difference payments under the CfD. Capacity that is not subject to CfD difference payments is termed 'Merchant Capacity'. For additional detail, please refer to LCCC's [IC and FIC Guidance](#).

8. When do you have to have achieved planning permission to bid for a CfD?

Please see our answer to question 6.

9. For inland sites, is Planning Consent (s36, TCPA, DCO) required for the AR4 application, or bid, or can they be part of the MDD/OCP milestones?

Please see the answer to question 6.

10. Is project capacity for solar referring to the AC or DC capacity?

As outlined in the draft AR4 contract ([FiT Contract for Difference Standard Terms and Conditions](#)):

"Installed Capacity" means the capacity of the Facility (expressed in MW) were it to be operated at optimal operating conditions at the Facility on a continual basis for a sustained period at the maximum capacity possible without causing damage to it, net of:

(A) all electrical loads required so to operate the Facility and/or deliver electricity; and

(B) all electrical losses that would be incurred from the Generating Unit(s) to the Metering Equipment at the Boundary Point in so operating the Facility and/or delivering electricity),

assuming any source of power used by the Facility to generate electricity was available to it without interruption, and provided that, where a Facility uses combined heat and power, the capacity of the Facility shall be determined by reference to a condition where any reduction of heat generation would not result in any increase in electrical generation;

An Initial Installed Capacity Estimate (IICE) is stated in MW at the point of application and is a Generator's estimate of the Installed Capacity prior to the award of a contract. Note that there are permissible reductions to this figure in certain circumstances and at certain stages within the contract. Further information can be found in LCCC's [Contracts for Difference - Generator Guide](#) and at the [EMR Delivery Body Website](#).

11. Is there transparency on whether projects have reached MDD?

Updates on projects in the CfD portfolio are available via the CfD register on LCCC's website: www.lowcarboncontracts.uk/cfds.

12. Given the low bid prices of fixed offshore wind and the trend for a return in money to consumers (i.e. no budget impact), what could the potential motives be for a capacity cap on offshore wind? Especially if the strike price was marginal compared to the reference price. Is it more about controlling levels of intermittent variation?

This question around policy is better directed to BEIS; questions on policy can be directed to BEIS via the 'Contact Us' form on cfdallocationround.uk by choosing 'Auction Parameters' from the 'Type of enquiry' dropdown.

13. Is it possible to change the "Facility Description" after ICP? For example, if turbine size changes between bid and construction.

It is recognised that during the design and construction of the Facility, the precise layout of the Facility or plant within it may change and as such consequential changes to the Facility Description may be appropriate, subject to LCCC's approval and provided that the proposed changes do not increase the Installed Capacity Estimate, change the Facility Generation Technology or materially change the operation of the CfD Agreement. Please refer to the [LCCC Facility Description Guidance](#).

14. It says on the website that these events will run up until the opening of AR4. On what frequency will the events run? And what topics will future events cover?

Please refer to cfdallocationround.uk and sign up via the 'Subscribe' button to receive notifications when new information is added to the website. Please do let us know what topics you'd like us to cover in future events – we have a Slido survey (#427597) here: <https://app.sli.do/event/jhmfurkc>. You can also submit questions on future events via the 'Contact us' form on cfdallocationround.uk.

15. Is the longstop date for tidal also 12 months?

Please see page 20 of the [November 2020 consultation response](#) on changes to Supply Chain Plans and the CfD contract which states:

Proposed contract changes

Longstop Period: *The Longstop Period is the length of time between the end of the Target Commissioning Window (when the 15 years of contract payments start) and the Longstop Date, by which date the generating station must commission or risk having its contract terminated.*

All CfD technologies, except for offshore wind, have a Longstop Period of 12 months.

16. In previous rounds what contract changes have been accommodated by LCCC in the 20-day post-auction contract signing window (beyond any M&D changes agreed prior to the auction bid)?

Assuming M&D means M&N (Minor & Necessary), we do not ordinarily accommodate any further changes. If you are considering contractual changes beyond what would be considered Minor & Necessary, we would recommend engaging with LCCC directly via info@lowcarboncontracts.uk.

17. It seems bizarre to have a shorter longstop (ie 12 months) for technologies less mature than fixed offshore wind where it's 24 months, e.g. floating offshore wind and marine renewables.

Please see page 20 of the [November 2020 consultation response](#) on changes to Supply Chain Plans and the CfD contract which states:

Proposed contract changes

Longstop Period: *The Longstop Period is the length of time between the end of the Target Commissioning Window (when the 15 years of contract payments start) and the Longstop Date, by which date the generating station must commission or risk having its contract terminated. All CfD technologies, except for offshore wind, have a Longstop Period of 12 months. The Longstop Period for offshore wind is 24 months because of the challenges of installing at sea. As set out in the Phasing section above, **we consider that floating offshore wind does not face the same construction risks as fixed bottom offshore wind. Therefore we consider it is appropriate to maintain alignment of the Longstop Period for floating offshore wind with other eligible technologies, i.e. at 12 months.** This period will be specified in the Standard Terms Notice which will be published in advance of the opening date of the next allocation round and inserted by LCCC into clause 5.3 of the CfD Agreement of floating offshore wind projects that are awarded a contract.*

18. Is there a formal deadline to meet RIC? Or does it just need to be done to give enough time for FIC to be declared before end of LSP?

There is no formal deadline to meet the Required Installed Capacity (RIC). At the time that the Final Installed Capacity (FIC) is declared, we check to ensure that the RIC has been achieved. Historically, this figure has been 85% of the Installed Capacity Estimate (ICE) for offshore wind, and 95% of the ICE for all other technologies. The Final Installed Capacity must be declared prior to the Longstop Date to avoid termination, and ideally should be declared within the Target Commissioning Window (TCW) to avoid erosion of the contract term. Further information can be found in LCCC's [Contracts for Difference - Generator Guide](#).

19. Upon securing a CfD for a declared project installed capacity, is the generator bound under contract to generate and export the that agreed capacity into the Grid or there is flexibility for the generator to enter into Power Purchase agreements/Private Wire arrangements with industrial/other Customers even after CfD award?

This is possible under the CfD (pre- or post-construction); but it is assessed on a case-by-case basis through discussion with LCCC.

20. Can generators secure CfDs for energy from waste projects, either as traditional grate technology or advanced gasification type technologies?

For the full list of technologies that are expected to be eligible, please visit the AR4 Microsite FAQs at cfdallocationround.uk/faqs. Previous definitions for both ACT and EfW with CHP can be found in the most recent draft [CfD Agreement Template](#), which should be considered carefully when making an application for CfDs. Draft Contract Templates for AR4 are available at [BEIS' CfD Allocation Round 4](#) webpage. Note should be taken of the requirement to generate electricity using solely Biomass or Waste (i.e. not Advanced Fuel) for Energy from Waste with CHP, and solely from Advanced Fuels in the case of Advanced Conversion Technology (ACT) generators. Eligibility requirements for these technologies will be published in the Allocation Round Framework.

21. What penalties will the generator have if they fail to meet the milestones and ultimately if they decide to break the contract?

LCCC has the right to terminate the CfD of projects that have not sufficiently progressed. Such a project would also be subject to inclusion on the Non-Delivery Disincentive (NDD) register. The NDD is a contract feature designed to incentivise applicants who have been successful in the allocation process. The penalties for NDD are covered in the [November 2020 Consultation Response](#).

22. Is the Non-Delivery Disincentive (NDD) applied to i) the applying company or ii) to the site defined by the co-ordinates in application? If ii), can you clarify if it is applied to the co-ordinates specified in the Application or at ICP (noting that the site awarded maybe smaller than that applied for).

It is applied to the site, not the company. The definition of 'Excluded Site' can be found within the [Contracts for Difference Regulations](#). The regulations relating to excluded sites was subject to an update in The Contracts for Difference (Allocation) (Excluded Sites) Amendment Regulations 2016. Temporary site exclusions apply under several scenarios set out in the Allocation Regulations. If a project is terminated before reaching its MDD, it will be subject to a temporary site exclusion and included on the Non-Delivery Disincentive (NDD) register, which is reviewed by the Delivery Body (part of National Grid ESO) prior to each allocation round.

23. How frequently are top-up payments to generators (or from generators) made, i.e. daily/monthly?

CfD generators are paid (settled) by LCCC on a daily basis.

24. If the CfD does not respond when prices are negative it would seem to still leave a material risk for lenders and undermine the ability to gain project finance, thereby undermining the purpose of bringing generation to market?

This was considered in BEIS' [November 2020 consultation response](#) on proposed amendments to the scheme, alongside the wider market impacts of negative pricing.

25. Slide 57 indicated AR4 will be comprised of an auction for pot 1, 2 and 3. Has this been confirmed?

Yes, please refer to 'What technologies will be eligible to compete in the next allocation round?' on the FAQs page of the AR4 resource portal, here: www.cfdallocationround.uk/faqs. See also the pot structure

that BEIS has confirmed in their [November 2020 consultation response to proposed amendments to the scheme](#).

26. Do you foresee green hydrogen being included in a pot for AR4?

No; hydrogen will not be considered an eligible technology for AR4.

27. If we intend on building a wind farm in two phases, could this be applied for as a combined CfD under AR4?

Different contract templates are available when making an application for a CfD. The relevant contract template depends upon a few factors (e.g. offshore/onshore, estimated construction times); we would suggest you reach out to LCCC for discussion: info@lowcarboncontracts.uk.

28. Is FMS applicable to hydrogen?

As per question 26, Hydrogen will not be considered an eligible technology for AR4.

29. What are the examples of Advanced Conversion Technologies?

The CfD contract defines Advanced Conversion Technologies as facilities that 'generate electricity using solely Advanced Fuels'. Draft Contract Templates for AR4 are available at BEIS' [CfD Allocation Round 4](#) webpage and on the AR4 microsite [publications](#) page.

All projects applying for AR4 that choose ACT as their technology will be expected to comply with the Physical Separation Requirement and the ACT Efficiency Standard criterion. Guidance with details on these two requirements can be found on [BEIS gov.uk pages](#) and on the AR4 microsite [publications](#) page.

30. National Grid will soon lose its role as the ESO and a new ISO will be established to avoid conflicts of interest. Will NG handle the entire AR4 process or will there be more regulatory oversight from Ofgem or BEIS?

The NG ESO EMR Delivery Body (DB) is a ringfenced entity within the ESO. The ESO is a separate legal entity within the National Grid Group. Although the Energy White Paper included a commitment to consult on system operation governance arrangements in 2021 and Ofgem also published a report titled: [Review of GB energy system operation](#) in January 2021, no decisions or changes have been announced at this time. The NG ESO, EMR DB will continue to undertake their role of handling the registration, application, allocation and auction processes for CfD rounds.

31. Payments seem to be based around a variable market price – is there a mechanism for payment around a fixed price PPA?

The CfD payment mechanism is linked to either the Intermittent Market Reference Price (IMRP) or the Baseload Market Reference Price (BMRP). Each reference price applies to a contract depending on

technology type. The mechanism is such that the difference between the secured Strike Price and the Market Reference Price is paid to (or potentially collected from a Generator).

A Generator is expected to secure their own Market Supply Agreement outside of/in addition to a CfD contract. There is no mechanism for payment around a fixed price Power Purchase Agreement.

32. BSUoS volatility is a pass-through cost in CfD. Why is TNUoS volatility not a pass-through cost in CfD?

The CfD contract provides for certain annual adjustments to be made to generator strike prices. These adjustments are designed to make the CfD contract broadly long-term neutral to changes in some balancing system charges, transmission losses charges and inflation, which are outside of the generators' control. The original policy intent for TNUoS volatility not being considered in establishing pass-through costs under the CfD is a policy question for BEIS – we would recommend sending any questions of this type directly to BEIS at BEISContractsforDifference@beis.gov.uk, or through the contact form on the [AR4 Microsite](#) by choosing 'General Policy' from the 'Type of enquiry' dropdown.

33. Is there a minimum MW threshold for gaining a CfD?

Capacity thresholds are confirmed via the [FAQ](#) on eligible technology on the AR4 microsite.