



Via email: FutureChargingandAccess@ofgem.gov.uk

Email: Tom.Steward@RWE.com

21st February 2022

Ref: Access and Forward-looking Charges Significant Code Review: Consultation on Updates to Mined to Positions and Response to June 2021 Consultation Feedback

Dear Patrick,

RWE Renewables is one of the world's leading renewable energy companies. With around 3,500 employees, the company has onshore and offshore wind farms, photovoltaic plants and battery storage facilities with a combined capacity of approximately 9 gigawatts. RWE Renewables is driving the expansion of renewable energy in more than 20 countries on five continents. From 2020 until 2022, RWE Renewables targets to invest €5 billion net in renewable energy and to grow its renewables portfolio to 13 gigawatts of net capacity. Beyond this, the company plans to further grow in wind and solar power. The focus is on the Americas, the core markets in Europe and the Asia-Pacific region.

Thank you for the opportunity to respond to the above consultation. Below we set out some key points, and detailed responses to the questions follow.

Key Points:

1. Creation of a level playing-field between all forms of generation should be prioritised:
 - a. Maintaining a shallow-ish connection charge for distribution-connected generators is out of step with the fully shallow connection charges available to transmission-connected generators. This maintains the existing uneven playing field between voltages.
 - b. Financially firm access rights should be extended to distribution-connected generators, in line with their transmission-connected counterparts. Although initially ruled out of scope of the Network Access workstream, the subsequent work regarding the charging of TNUoS to embedded generation, and the significant role that embedded generation is likely to play in the transition to Net Zero, justifies re-evaluation of this decision.
2. Distribution-connected generators that connected under the current 'voltage rule' should not now be exposed to additional reinforcement costs through DUoS. This amounts to a double-charging, and is out of step with

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historical precedents for such changes. The forthcoming review of DUoS offers an opportunity to introduce such measures.

3. Storage should be recognised as distinct from other sources of flexible generation, in line with its actual impact on the grid.
4. Demand and generation connections triggering reinforcement should be considered on the same basis – maintaining a deeper connection charge for distribution-connected generation than distribution-connected demand risks creating an inefficient investment signal.
5. From a governance perspective, carrying out closely-related workstreams in isolation presents significant challenges. The commercial impact of many of these proposals is difficult to assess without clarity on the future direction of travel for DUoS.

I hope that you find this response useful. If you have any questions, please do not hesitate to contact me.

Yours faithfully,

Dr. Tom Steward

Senior Regulatory Affairs Manager
RWE Renewables



Responses to questions

Distribution connection charging boundary

Question 2a:

i. Do you believe that it is necessary to introduce a High Cost Cap (HCC) for demand, and to retain one for generation?

We are not aware of any compelling reasons to remove the high cost cap for generation, and recognise the value in introducing a reciprocal arrangement for demand connections. However, feel that the HCC should be set in the same way for demand as generation, to ensure both types of network user are treated equally.

ii. Do you believe that our proposals to do so represent sufficient and proportionate protection for DUoS billpayers against excessively expensive connections driven reinforcement?

Retaining the high cost cap for generation, and adding a high cost cap for demand is consistent with protection for DUoS billpayers. However, it does not appear adequate. There is currently no proposal to protect those generators that have already contributed to reinforcement of the distribution network from being charged twice however – once on connection, and then again through DUoS bills in future. Measures should be introduced to avoid double-charging in this way. To fail to do so would place unnecessary risk on some generators, and particularly given its inconsistency with previous such decisions (see below, question 5b) can not be suggested to be a foreseeable policy change which should have been planned for by developers.

We also feel that the means for calculating the high cost cap on generation, to continue to be based on the voltage rule (in spite of connection charges not being charged on this basis) needs revision (see below). To do otherwise brings confusion, and creates two classes of connectors – those who trigger reinforcement at the higher voltage and are therefore more likely to breach the high cost cap, and those that do not. This in effect means that although reinforcement is only going to be *paid* on the connection voltage, constraints on the next voltage up are still creating a locational signal. Following the revision of DUoS, this will mean that generators are very likely exposed to two, possibly conflicting, locational signals. This risks distorting locational outcomes.

We do not concur with the assertion that generation is more free to select location than demand – the location of wind generation in particular is limited by planning constraints, site accessibility, and wind resource – something which is significantly less true for many sources of demand.



iii. What are your views on retaining the current ‘voltage rule’ to determine whether the HCC is breached (ie considering the cost of reinforcement at the voltage level at point of connection and the voltage level above)?

As above, we feel that continuing to calculate the high cost cap on generation based on the current voltage rule (in spite of connection charges not being charged on this basis) needs revision. To do otherwise brings significant confusion, and creates two classes of connectees – those who trigger reinforcement at the higher voltage and are therefore more likely to breach the high cost cap, and those that do not. This would also undermine the move towards a more level playing field between distribution and transmission connectees – the latter of which face fully shallow connection charges.

Calculation of the HCC in this way means that although reinforcement is only going to be paid on the connection voltage, constraints on the next voltage up are still creating a locational signal. Following the revision of DUoS, this will likely mean that generators will be exposed to two, possibly conflicting, locational signals. This risks distorting locational decision-making by developers.

Finally it creates a distortion between demand connectees and generation connectees, which should be acknowledged as having equal and opposite impacts on the network.

iv. What are your views on the principles we have proposed to determine an appropriate HCC level for demand, including the potential for this to be set at a different level to generation under these principles?

Generation users and demand users should be treated as equal and opposite to one another – this means determination of the HCC should be on the same basis. To do otherwise risks distorting location decisions by different developments.

Question 2b: What are your views on our proposals to maintain the requirement for three-phase connection requests to pay the full costs of reinforcement, in excess of Minimum Scheme (ie lowest overall capital cost)?

No response.

Question 2c:

i. Do you agree with our proposals to maintain the current treatment of speculative connections and is there a need for further clarification on the definition of speculative connections?

No response.



ii. Do you agree that our wider connection boundary proposals broaden the disparity between connections deemed to be speculative versus non-speculative? If so, do you believe this needs to be addressed and how?

No response.

Question 2d: Do you consider that our proposed DUoS mitigations (a demand HCC, and retaining reinforcement payments for three phase and speculative connection contributions) present a cohesive package of protections for DUoS billpayers? Do you consider these proposals to interact in any way that could counter their effectiveness, and if so, how?

No response.

Question 2e: Do our updated proposals to treat storage in line with generation for the purposes of connection charging simplify charging arrangements for these sites and better align with the broader regulatory and legislative framework?

Although charging storage as if it were a generator is indeed consistent with the current wider regulatory regime, this acts only to recreate the shortcomings of the wider regime into distribution connection charging – something which could be addressed through the forthcoming Energy Bill.

The commercial environment can lead storage to behave in a way which is quite different from other types of dispatchable assets, and the level of “negative generation” storage assets can provide can be beneficial in reducing grid constraints. These differences must be appropriately reflected in the network charging framework.

If it is assumed that storage will have the same impact on the system as any other form of dispatchable generator, this is unlikely to reflect the realities of how such a plant may operate. We acknowledge the system security requirements that DNOs must deliver on, but it not clear that all avenues have yet been explored to minimise system cost based on likely running patterns of different types of plant.

Treating storage exclusively as a generator also means it is exposed to different connection charging arrangements where it triggers import reinforcement (shallow-ish), compared to other forms of demand (fully shallow).

The full impact on storage projects of treating them as a subset of generation cannot be properly assessed without the outcomes of the forthcoming DUoS review.



Question 2f: Do you agree with our proposals regarding the treatment of in-flight projects (ie that they should not be permitted to reset their connection agreement and retain their position in the queue), noting they retain the right to terminate and reapply from 1 April 2023 should they wish to be treated under the proposed connection charging boundary?

This appears to be a logical approach, with the caveat that projects should not face having to pay for reinforcements twice – both as part of a connection, and subsequently as a part of DUoS charging. This is inconsistent with how the move from “deep” to “shallowish” charges was eventually managed (see question 5). The forthcoming DUoS review will present an opportunity to ensure this double-charging does not occur.

Question 2g: Do you agree with our proposals to retain the existing arrangements for managing interactive applications? Do you agree with our proposals on the treatment of unsuccessful applicants (that the connection charges at original application date will continue to apply if queue position is retained)?

No Response.

Question 2h: Do you agree with continuing with the definition of the Minimum Scheme as currently set out in the CCCM? Do you believe this definition requires any further clarification or amendment, and if so, why?

No response.

Question 2i: Are there any risks associated with our proposals to allow current non-firm connected customers to seek a firm connection following the changes proposed by our SCR? Do you agree that existing non-firm connected customers that do seek a firm connection should be processed through existing queue management processes as determined by DNOs?

We would ask for clarity that it is only the “firmness” that takes a place in the queue – that in the interim a site would continue to maintain a non-firm connection until firmness was offered.

We would also ask that where assets are already in the connection queue on a non-firm basis, that they are able to maintain their current position in the queue with a non-firm connection, but also able to add a request to convert to a firm to the back of the queue – not having to wait until a project is commissioned on a non-firm basis to apply to join the queue for conversion to a firm connection.



Question 2j: How necessary do you consider Ofgem intervention in Electricity Distribution Standard Licence Conditions 12, 15 and 15A? What duration might such measures be needed, or acceptable, following 1 April 2023? What value do you place on certainty of connection timeframes compared with time to connect?

Given that this direction of travel has long-since been signalled by OFGEM, it is not clear that unilateral relaxation of these licence provisions is appropriate. We would propose that the current licence requires are maintained, but that DNOs should engage bilaterally with OFGEM if they find themselves unable to meet the required standards. OFGEM will then be able to assess if DNOs have made every effort to meet their licence requirements, and award time-limited derogations where appropriate. To guarantee a relaxation of rules ahead of time risks creating a perverse incentive on DNOs to under-resource the relevant departments – at detriment to future connecting users, and delaying decarbonisation.

3. Access rights

Question 3a: Do you agree with our proposal to exclude customer interruptions and transmission constraints from the definition of curtailment with respect to distribution network access arrangements?

We do not agree with these proposals.

Customer Interruptions

The proposal to exclude customer interruptions results in a significant level of uncertainty on developers. Customer interruptions at the transmission can be maintained financially firm, but the same is not currently being proposed at the distribution level. Providing certainty regarding level of curtailment including these forms of interruptions offers a small step towards a more level playing-field between distribution and transmission-connected assets.

At present, when a developer is prospecting a site or connection location, DNOs set out how many times a particular line has been taken out of service, but provide little detail on why it has happened historically – i.e. whether it was because of a one-off event (eg. line collision or new connection) or if the line is prone to faults owing to its location/construction. This makes an assessment of the probability of future curtailments very difficult for a developer.

Customer interruptions are even more problematic for assets connected at EHV where GSOPs do not apply.

Transmission Constraints

We note that there is little a DNO can do to prevent constraints at the transmission level. However, there is also little a generator can do to prevent such constraints. Where DNOs hit curtailment generator limits, they are able to procure flexibility services from the market and then recoup costs. Generators however have no route to recoup costs, no matter how often they are disconnected. It is good practice to recover costs from those parties best



able to manage the risk of those costs, and it is clear that DNOs are better able to manage the risk of transmission-level curtailment than the curtailed generator.

The simplest solution however would be to introduce financially firm access rights at the distribution level, to deliver a regime equivalent to the transmission system connected assets.

Question 3b: Do you agree that the curtailment limit should be offered by the network based on maximum network benefit and agreed with the connecting customer?

Prioritisation for which sites are to be curtailed should reflect network benefit, but also consider carbon impact.

Question 3c: Do you have any views on the principles that should be applied to ensure curtailment limits are set in a consistent manner?

No views, but support the focus on ensuring consistency of treatment.

Question 3d: Do you agree with our proposal not to introduce a cap for flexibility payments made should any curtailment in excess of agreed limits be required?

Yes – we strongly agree with this proposal.

Question 3e: Do you agree with our proposal to introduce explicit end-dates for non-firm arrangements? Are there any mitigations for DUoS billpayers we should consider?

Yes we agree with this proposal, subject to agreement from the user – the user should be able to elect to maintain a non-firm connection until such time as an application for firmness is made. Consideration should also be given within the DUoS workstream to possible DUoS reductions when a user consents to an ongoing non-firm connection (ie where a network user foregoes or delays adding to the DUoS bills of other users, that user should realise that benefit).

Question 3f: Do you have views on whether the end-dates should take into account only current known or likely works, or if it should allow time for wider developments to take place?

End dates should not be based on the completion of as yet unplanned works – this would leave a developer in “limbo” – unable to plan.



Question 3g: Do you have any comment on our proposal not to further define or standardise time-profiled access arrangements?

This appears a sensible approach until DUoS reform is completed. DUoS charges may offer a better route to delivering similar outcomes. If this does not come to pass however, there may be value in revisiting this decision.

4. Transmission Network Use of System Charges

We would like to highlight the level of uncertainty that continues with regard to charging embedded generators TNUoS, and the future TNUoS review itself. We would urge OFGEM to progress the transmission review as soon as possible and offer as much certainty to developers as possible.

5. General questions

Question 5a: Has the additional information in this consultation affected any of the views your previously submitted in response to our June 2021 consultation (if so, in what way)?

No view.

Question 5b: Do you have any other information relevant to the subject matter of this consultation that we should consider in developing our proposals?

Paying for reinforcements twice

In April 2005, distribution connection charges moved from “deep” to “shallowish” charges. Subsequently it was recognised that this exposed generators to a double-charge – both through a deep connection charge and subsequently through GDUoS charges. This led to the introduction of a 25 year exemption period of 25 years. We propose that this form of transitional arrangement would once again be appropriate, to ensure that generators are not exposed twice to reinforcement charges. Details of this decision can be found on OFGEM’s website¹.

Financially firm connections

We note that financially firm connections are out of scope for this workstream. However it is not clear why uncapped market-procured services to avoid exceeding curtailment limits are considered a preferable option. Failure to offer financially firm connections at the

¹ <https://www.ofgem.gov.uk/publications/distribution-use-system-charging-decision-allow-time-limited-exemption-pre-2005-distributed-generators>



distribution level maintains an uneven playing-field between transmission and distribution assets.

Network planning

We are not clear on how the interaction between constraints and network planning occurs, we would urge OFGEM to set this out and ensure that it is current consistent with economically efficient delivery of Net Zero.

Connection boundary

We believe that the choice for a “shallower” generation connection boundary will continue to distort decisions regarding level of network connection – given the fully shallow connection boundary at transmission. We are also not clear that the different treatment of generation and demand connection boundaries is justified.