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1 September 2021

Dear Patrick

Access and Forward-looking Charges Significant Code Review: Consultation on Minded to Positions

We welcome the opportunity to comment on Ofgem's minded-to positions in its Access and Forward-looking Charges Significant Code Review. Our answers to the consultation questions are in Annex 1 attached. In summary:

- We are broadly supportive of the proposed changes to distribution **connection charges** for demand and generation users. This should reduce barriers to adoption of LCTs and connection of renewable generation and should encourage DNOs to take a more holistic approach to network design. We would encourage Ofgem to consider how reforms to DUoS charges might mitigate the loss of locational signals and the risk that socialised costs may therefore be higher than necessary.
- We are broadly supportive of the proposed changes to **access rights**. We would note that non-firm access choices and the levels of "firmness" would need to be clearly defined with compensation correlating correspondingly.
- We understand the rationale behind Ofgem's proposals for **TNUoS charging for Small Distributed Generation**, in that this will remove an inconsistency between SDG and other classes of generation, which may distort location and other investment decisions. However, we would caution against introducing this change until a more fundamental review of TNUoS charging has been undertaken.
- We think there is also an urgent need for a **wider review of TNUoS charges**, to consider in particular whether retaining the current steep locational gradient between north and south is compatible with timely and efficient progress to net zero. This could usefully run alongside the review of DUoS charging which Ofgem has already committed to under the AFLC SCR.

Yours sincerely,

A handwritten signature in blue ink that reads "Richard Sweet". The signature is written in a cursive style with a large, stylized 'R' and 'S'.

Richard Sweet
Head of Regulatory Policy

**ACCESS AND FORWARD-LOOKING CHARGES SIGNIFICANT CODE REVIEW:
CONSULTATION ON MINDED TO POSITIONS – SCOTTISHPOWER RESPONSE**

Chapter 3. Our proposals for distribution connection charging

3a. Do you agree with our proposals to remove the contribution to reinforcement for demand connections and reduce it for generation? Do you think there are any arguments for going further for generation under the current DUoS arrangements? Please explain why.

Demand connections

Ofgem is minded to remove all contributions to reinforcement costs from the connection charges for new demand users, with these costs instead socialised via DUoS. We support Ofgem's objective of removing barriers to earlier adoption of low carbon technologies such as EVs and electric heating, and to the extent that this will materially assist demand connections we would support it. It is difficult to assess the overall impact on demand users without knowing how DUoS charges will change as a result, and in particular what locational signals may be introduced to DUoS.

Generation connections

Ofgem is minded to reduce connection charges for new generation assets by removing the contribution towards the costs of reinforcement at the voltage level above, but retaining the cost of reinforcement at the same voltage level. The avoided costs would instead be socialised via DUoS.

We broadly support Ofgem's minded to position, to the extent that it will facilitate faster deployment of renewable generation. However, as with demand connections, it is difficult to comment in detail without visibility of what changes may subsequently be made to the DUoS charging methodology.

3b. What evidence do you have on the effectiveness of the current connection charging arrangements in being able to send a signal to users and what do you think will be the effect of our proposed changes? How does this vary between demand and generation connections?

We would expect the current connection charging arrangements to be reasonably effective in signalling to users where they can connect at lowest overall cost to the system. In general, we would expect generation users to be more flexible in their choice of location than demand users, and therefore more responsive to price signals. However, windfarms will continue to attempt to locate where the wind blows. While Ofgem's proposed changes will clearly remove/reduce this locational signal from the connection charge, it is unclear at this stage to what extent the locational signal may be reintroduced via changes to DUoS charging.

The experience of our renewables business is that the current connection charging arrangements for generation connections can be a barrier. While we support the use of more flexible network management techniques to maximise use of available capacity and reduce reinforcement requirements, in most instances we nevertheless experience the need for network reinforcement to accommodate connections. The current arrangements disincentivise generators from connecting due to the significant costs that are passed through to the

triggering party (or parties if cost sharing is possible). Sites connected at distribution in Scotland are already less favourable to stand up to such costs due to the MW limitation at the lower voltage (33kV versus 132kV in E&W).

Under the existing arrangements, we have experience where the installation of generation equipment that would aid network stability and flexibility and without the need to increase a Maximum Export Limit, triggers significant cost due to fault level limitations at or below the grid/bulk supply point.

3c. What are your views on the effectiveness of the current arrangements in facilitating the efficient development and investment in distribution networks? How might this change under our proposals where network companies are required to fund more of this work?

As noted in the response from our networks business, SPEN, current arrangements requiring DNOs to provide the lowest cost connection offer tend to encourage a focus on individual connections rather than a holistic approach. The proposed changes should allow for a more holistic approach to network design, ensuring that sufficient capacity is available to connect to the network, or by facilitating connections via flexible solutions until such time as sufficient network capacity can be made available in a cost-effective manner.

3d. Do you agree whether the need to provide connection customers with certainty of price reduces the potential for capacity to be provided through other means such as flexibility procurement? How might this change under our proposals?

Please see the response from our networks business, SPEN.

3e. What are your views on whether we should retain the High Cost Cap? Is there a case for reviewing its interaction with the voltage rule if customers no longer contribute to reinforcement at the voltage level above the point of connection?

Under the HCC, distributed generation funds all reinforcement costs above £200/kW (not just its apportioned share of reinforcement costs¹). Where both the HCC and voltage rule apply, the voltage rule takes precedence, which means that generation does not pay for reinforcement costs at other voltage levels (ie other than the voltage level of the point of connection, plus the one above).

Ofgem says it is considering two options in the event that it modifies the voltage rule as proposed:

- HCC only applies at the voltage of connection (i.e., the voltage rule continues to take precedence);
- HCC applies at the same voltage level as connection, plus one above (i.e., the HCC takes precedence at the voltage level above).

We agree that there is probably merit in retaining the HCC given its role in protecting consumers from high cost projects, particularly if, as Ofgem suggests, areas that require more reinforcement may also be less densely populated. We do not have a strong view on whether

¹ Apportionment of reinforcement costs between connection customers and the DNO is determined using two Cost Apportionment Factors (CAFs). The Security CAF and or the Fault Level CAF are used depending on what is driving the need for reinforcement (network or fault level capacity).

the HCC should also apply at voltage level above. This will depend in part on the extent to which relevant locational price signals can be sent via DUoS.

3f. What are your views on the recovery of the costs associated with transmission that are triggered by a distribution connection? Does this need to be considered alongside wider charging reforms or could a change be made independently?

It is difficult to comment without a better understanding of how distribution connections impact on transmission costs in practice. We understand that the majority of GSPs in Scotland export to the transmission network, but it is not clear what this means in terms of transmission impact/reinforcement relative to overall system and customer benefit.

Also, considering that Grid Supply Points (and Bulk Supply Points) are the interface between transmission and distribution, it is necessary to take into account the difference between the licence voltages in Scotland and those of England and Wales. Therefore, impacts between the two systems for generators of the same size may not be comparable.

Accordingly, we would favour considering this alongside wider charging reforms.

3g. What are your views on the likelihood of inefficient investment under our proposals (e.g., an increase in project cancellations after some investment has been made)? Are there good arguments for further considering introducing liabilities and securities to mitigate this risk?

We find it difficult to comment on the likelihood of inefficient investment. With a move to a shallower connection boundary as is being proposed, we would expect to see some level of risk mitigation through a user commitment type arrangement to manage the increase in costs to UoS.

It would also be worth considering if any lessons can be learnt from the current model used at transmission by the ESO.

3h. What are your views on whether the interactions between our connection reforms and the ECCR must be resolved before we are able to implement our proposed reforms? How do you factor in the effects of the ECCR (if at all) into decision making given the levels of uncertainty around subsequent connectee(s)? What suggestions do you have to make our policy and the ECCR work together most efficiently?

We believe there is a significant piece of work required to determine the impact and fairness of the implementation date and how it interacts with existing and proposed connections.

We would note that typically, generator assets far out-live the period denoted in by the second-comer principle, and therefore to be required to pay for this in another way could result in a double charge.

Ofgem is proposing to move to an arrangement close to what was implemented around the time of BETTA, when the transmission connection boundary moved to shallow. At that time, the ability to remunerate customers who had paid high up-front cost was not limited by time. We believe this is the only fair way to approach this area and therefore conclude that the ECCR would need to change in this respect.

Chapter 4. Our proposals for definition and choice of access rights

4a. Do you agree with our proposal to introduce better defined non-firm access choices at distribution? Do you have comments on their proposed design?

We agree in principle with the introduction of better defined non-firm access choices where there is the potential for better more efficient use of grid assets.

We would note that levels of “firmness” would need to be clearly defined with compensation correlating correspondingly. A system User should have the ability to determine the expected level of firmness and to opt for suitable time profiled access accordingly.

We also note that the ESO would be required to change their systems and wonder how Ofgem intends that these costs would be recovered, eg would this become part of the cost of the service or recovered separately via a socialised charge?

4b. Do you agree with our proposal to introduce new time-profiled access choices at distribution? Do you have any comments on their proposed design?

This proposal appears to be a good option for solar generation which, for example, would not require network access at night. However, for plant whose output is not predictable over a longer term such as wind, time-profiled access would not be an option. An option for wind may be to consider a capacity factor-based charge based on an average over a longer time period.

We would also ask Ofgem to consider if there should be a direct link between time-profiled access and the cost of connection. For example, should generators wish to limit their network access to either strictly peak or non-peak times, could this arguably result in a cheaper up-front connection cost (or lower DUoS) than a ‘standard’ connection - or would the added access flexibility come at an increased cost?

As per our response to Question 4a, if the ESO needs to change its systems we wonder how Ofgem intends these costs would be recovered, e.g. would this become part of the cost of the service or recovered separately via a socialised charge?

4c. Can you identify any benefits to shared access rights, which would indicate we have underestimated the likely take-up?

We are unable to identify any such benefits at this stage.

4d. Do you have any comment on our proposed choice about how to reflect access rights in charges (i.e. connection and/or distribution use of system charges)?

Given that access rights charges do not relate to the ongoing use of the system and will be a factor in determining the type of connection solution, it would appear more appropriate to include them within connection charges rather than DUoS.

4e. Do you agree with our proposal to not prioritise the introduction of new transmission access choices as part of this Significant Code Review?

This is probably a sensible approach to avoid over-complication. However, it may be appropriate to consider at a subsequent stage how transmission access limitations interact with distribution connected customers.

4f. Do you have views on how access rights should be standardised across DNOs?

Although it is desirable in principle to standardise access rights across DNOs, conditions are likely to vary between different regions and locations such that keeping open the possibility of local variation is desirable.

While we don't have any firm views on how access rights should be standardised across DNOs, we would urge Ofgem to consider the voltage differences between Scotland and E&W and the disparity this could create for generators of the same size in different locations.

4g. Do you have any views on our proposed timescale of 1 April 2023 implementation?

For the proposed changes to access rights we think an implementation date of 1 April 2023 is reasonable.

Chapter 5. Our proposals for TNUoS charging for Small Distributed Generation

5a. Do you have any evidence that SDG does not contribute to flows in the same way as large generation and, therefore, should not be charged on a consistent basis?

We are not aware of any reasons in principle why SDG (<100 MW) should not contribute to flows on the transmission network in the same way as large distribution-connected generation (LDG) (>100MW).

However, as explained below in response to Question 5g, we believe the current TNUoS charging regime is in need of fundamental review and would therefore caution against making changes to SDG charging arrangements ahead of such a review.

5b. Do you agree with our threshold for applying TNUoS generation charges of 1MW? If not, what would be a better threshold and why?

Ofgem is considering applying TNUoS charges to all generators, except for SDG of less than 1 MW, which would continue to face the embedded export tariff (EET) with the cap removed. We think the proposed threshold of 1MW strikes a reasonable balance between efficiency and administrative burden.

5c. Do you have any evidence that distribution connected generation at a grid supply point has a different impact than directly connected generation?

Network operators will be best placed to comment on the power engineering implications. Please see the response from our networks business SPEN.

5d. Do you have a preference for one of our options for addressing the local charging distortion? If so, please indicate which option and provide your reasons. Are there any options that we have missed?

Ofgem identifies three options:

- Option 1a: TNUoS generation charges for all users
- Option 1b: TNUoS charges for all generation >1MW and uncapped EET for <1MW SDG
- Option 2: Uncapped inverse demand charges – all SDG

We provisionally agree with Ofgem that Option 1b would best achieve the guiding principles. This will largely remove the distortion and result in improved cost-reflectivity.

5e. Do you support our position that we should consider transitional arrangements? If so, do you have a preferred option and evidence to support the benefits or risks associated with each option?

Ofgem says it is considering three options for transitional arrangements:

1. No transitional arrangements – raise the relevant code modifications immediately, in order to address the distortion most quickly
2. Delay implementation – pending a wider review of transmission charging
3. Limited period grandfathering –with a specified group of generators continuing to face the capped EET for a period of time (eg 15 years from commissioning, reflecting the CfD duration).

We would favour a combination of Option 2 and 3. We believe a wider more fundamental review of TNUoS charges is required in advance of any implementation of TNUoS charges to SDG and implementation should therefore be delayed to allow this. There is already a large disparity between Scottish generators and rest of GB and implementation without considering a wider reform could exacerbate the issue.

When the time comes for implementation we would also support a form of time-limited grandfathering as suggested by Ofgem. It would be helpful for Ofgem to provide an update on its intentions regarding grandfathering ahead of the next round of CfD auctions in 2022 so that developers can factor this into their bids.²

5f. Have we identified all the options for administering TNUoS generation charges for SDG? If not, what options have we missed, and why would they be preferable to those we have identified? Can you provide any evidence regarding the implications of the different administrative options for your business?

Ofgem identifies four main options to enable the ESO to recover charges for use of the transmission network:

1. SDG enters into access agreements with the ESO to establish their capacity and the ESO charges the supplier for TNUoS (similarly to currently charges for the EET)
2. SDG enters into access agreements with the ESO to establish their capacity and the ESO charges them directly
3. Supplier agrees capacity for their portfolio of SDG in each zone for charging purposes, and is charged TNUoS by the ESO on that basis

² Sealed bid window: 9–29 March 2022 (shortest timeline) or 24 May–15 June 2022 (longest timeline), <https://www.cfdallocationround.uk/news/key-dates-allocation-round-4>

4. DNOs agree total transmission access with the ESO on behalf of SDG embedded in their network. The ESO then charges the DNO for TNUoS and the DNO bills the supplier for their combined DUoS and TNUoS.

We do not have a clear view on the relative merits of these options at present but would encourage Ofgem to consider how the administrative burden on suppliers may be minimised. We agree that the supplier-led option could give rise to a large number of implementation challenges, including the expansion of the supplier role and increased supplier liability, and for that reason we would encourage Ofgem to reject option 3.

5g. Are there any specific issues you think we need to consider, as part of our work on the future role of network charges? Why are these important to consider?

The minded-to proposals set out in the current consultation address only part of the original scope intended for this SCR. Ofgem has yet to reach a minded-to position on the reform of DUoS charges and it is difficult to consider the current proposals in the round without knowing what may happen to DUoS.

Although we can understand the rationale for Ofgem's current proposals around TNUoS for SDG, in terms of minimising distortions between different classes of generation, we think there is also an urgent need for a wider review of TNUoS charges, to consider, inter alia:

- Whether retaining the current locational gradient between north and south will have a positive or negative effect on progress to net zero:
 - to what extent will it lead to wind or solar developers locating their projects more cost-effectively, and to what extent will it simply skew the mix between wind in the north and solar PV in the south?
 - What effect will it have on repowering decisions in Scotland and the risk of asset stranding?
- Whether the current models on which the locational gradient are based are still fit for purpose, given the changing mix of generation on the system, with widely varying load factors
- Regardless of the gradient, whether the current volatility in TNUoS charges is deterring investment and whether reforms could reduce this volatility
- Whether alternative approaches to TNUoS (such as postage stamp) might help achieve net zero faster and/or at lower cost

So, in summary, we would encourage Ofgem to press ahead with its consideration of DUoS charging reform and at the same time undertake a more fundamental review of TNUoS charging.

Chapter 7 Timelines and next steps

7. Do you have any other information relevant to the subject matter of this consultation that we should consider in developing our proposals

See our response to Question 5g.

ScottishPower
September 2021