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Sent by email to: FutureChargingandAccess@ofgem.gov.uk

Dear Patrick,

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

Thank you for the opportunity to respond to the above consultation. This is a non-confidential response on behalf of the Centrica Group.

We note that this minded-to decision does not include proposals for the forward-looking charge element of the review and that the proposals assume no or low reform of use of system signals. We would encourage Ofgem to publish the forward-looking charge proposals at the earliest opportunity in order for industry to understand and engage with the overall package of reform intended from the review. Our response to this first set of minded-to positions must be caveated on this basis.

The smart and flexible management of technologies will be essential to ensure that new low carbon technologies (LCTs) can be accommodated to enable the transition of the energy system to net zero, without requiring avoidable and potentially significant network investment. To facilitate the delivery of the levels of flexibility that will be required, arrangements need to ensure flexibility providers can get access to distribution networks under fair terms and that use of system charges provide effective signals which reflect the impact a change in behaviour will have on the future costs of the network.

We believe a successful outcome for the review will be a set of arrangements that balance strong but predictable forward-looking charge signals with access arrangements that facilitate fairness in connections and enable well-functioning local and national flexibility markets.

The lack of firm access rights generally at distribution, and more specifically for users that have no credible alternative but to accept a flexible connection in order to get access, represents a distortion between transmission and distribution arrangements. This distortion impacts the ability of those users effectively to compete against transmission-connected assets for other revenue streams.

Therefore, Ofgem's proposals for changes to distribution access and connection charging arrangements represent a step in the right direction. It will be important that existing customers also benefit from the proposals. Those with non-firm access or who are in an Active Network Management Zone should be able to make use of the new arrangements i.e. changing their current access from an indefinite non-firm arrangement to a time-limited non-firm arrangement.

Whilst we consider the proposals are positive, they fall short of removing the distortion between transmission and distribution arrangements, particularly for distributed generation (DG). Generators connecting at transmission level benefit from the Connect and Manage regime, a shallow connection boundary and financially firm access rights. If Ofgem is not minded to bring access arrangements for DG into line with those at transmission, then *we believe there is a strong case to consider bringing transmission access arrangements into line with those to be applied at distribution*. Any wider review of transmission arrangements should therefore include access and connection charging arrangements, including the Connect and Manage regime, which we believe is driving significant increases in consumers bills through higher balancing costs.

At a high-level, our key recommendations for the areas considered in this consultation are:

- Remove barriers to entry and reduce distortions with transmission arrangements by moving to a 'shallow' connection charging boundary for both demand and generation
- Improve and clarify access rights to the distribution networks by introducing better defined non-firm and new time-profiled access choices at distribution
- The charging of TNUoS to small DG should be linked to small DG having the same access rights to the transmission network as large generation and implementation of this element of reform should be delayed until this is the case.

In Appendix One we provide more detail on these recommendations and in Appendix Two we provide answers to the consultation questions. I hope you find these helpful.

Please contact George Moran in the first instance if you have any questions.

Yours sincerely,

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Appendix One

Connection Charging Boundary

Shallow Connection Charging Boundary at Distribution

We agree with the proposal to move to a shallow connection boundary for demand. For the vast majority of the required deployment of LCTs, location has already been decided and so the current shallowish boundary provides no useful locational signal and can act to prevent investment, slowing the transition to net zero. The current boundary also encourages DNOs to take a reactive approach to reinforcement as the means of facilitating new connections, rather than investing strategically in anticipation of wider network needs or considering alternative options such as flexibility procurement to meet the capacity requirements of their customers. We believe that a shallow connection boundary for demand will facilitate the roll out of LCTs in an efficient and timely way and could also reduce the overall requirement for traditional network investment.

Ensuring DG can connect without excessive delay or cost is also necessary to provide the level of flexibility and low carbon generation that will be required to meet net zero, and we believe a shallow connection boundary should also apply for generation. We believe the distinction made between demand and generation in ability to choose location may not be as significant as set out in the consultation. Suitable generation sites are limited, especially for certain technologies, and so the consequence of a deeper connection boundary for generation could result in that generation asset not being built at all, rather than assuming the connecting customer relocates elsewhere on the network. A shallower boundary will also retain a difference between transmission and distribution connection charging arrangements for generation which could create: undue barriers to entry at distribution; distortions between transmission- and distribution-connecting projects; and/or inefficient network development. A shallow boundary will reduce barriers to entry for some projects at distribution level and reduce this distortion between transmission and distribution arrangements.

Combined with more effective Use of System signals

The evidence previously collected by Ofgem¹ shows the average customer share of connection costs to be £13k where quotes have been accepted and £91k where quotes have not been accepted. However, the breakdown of these figures suggests that it is the 'shallow' element of connection costs (£12k for accepted quotes vs £78k for not accepted quotes) which are the main driver behind projects not going ahead, rather than the contribution to reinforcement costs (i.e. the shallow-ish element, £1k vs £13k). Therefore, whilst a shallow regime may result in material cost reductions for some individual projects, the evidence suggests that a shallow boundary will retain a reasonably strong locational signal.

For this reason, we support a shallow connection charging boundary for demand and generation, combined with more effective use of system charging signals. The focus for use of system charges should be on making the signals broadly accurate and more predictable. Ensuring use of system charges deliver a broadly accurate signal will help to ensure that costs and benefits from charges are directionally appropriate and reasonably sized, while more predictable signals will have a greater influence on customer behaviour (i.e. where to locate and when to operate)

¹ https://www.ofgem.gov.uk/sites/default/files/docs/2019/12/winter_2019_-_working_paper_-_connection_boundary_note_publish_0.pdf (Table 2, Connection Boundary note)

and will therefore be more *effective* at delivering long-term benefits. At least in the short to medium term, we believe that Long-Run Marginal Cost (LRMC) models are appropriate for network use of system charging, with short run operational and/or highly localised constraints managed through market-based flexibility procurement.

Liabilities and Securities

Liabilities and securities arrangements are about protecting wider consumers from the risk of having to fund stranded investment due to projects not going ahead. We do not believe these are necessary for most distribution connections due to their low-cost nature. However, they may be appropriate for high cost projects under a shallow connection regime. If such segmentation is applied, it is better to segment according to the level of cost (i.e. linked to the stranding risk) rather than by voltage level, which may introduce perverse boundary issues. Also 'high cost' should not simply be the total cost of reinforcement, as in theory this could capture a domestic property installing an EV charger (if it triggers reinforcement), but rather should follow an apportionment rule so that the practical application is limited to larger projects which are driving reinforcement.

Also, since an objective of the review is to reduce barriers to investment in LCTs and variable renewable energy sources (VRES), it would be important to ensure that the connection charging methodology and any liabilities and security arrangements are applied consistently across all DNOs and do not introduce potential liabilities which exceed the current shallowish connection boundary.

Access Rights

Access rights to the distribution networks require clarifying and improvement to ensure DG and demand side response (DSR) can compete effectively with transmission connected generation for revenue streams across the market.

Therefore, we support the proposals to introduce better defined non-firm and new time-profiled access choices at distribution and to define new non-firm arrangements in relation to the percentage of time that users are willing to be curtailed. However, we note that these continue to fall short of arrangements at transmission, where users benefit from financially firm access rights.

With respect to how access choices are valued, we agree that users should receive value when they obtain an access right that avoids additional network costs. We note that under a shallow(er) connection boundary regime there is no (or less) difference in connection cost between a firm and non-firm connection and so under Ofgem's proposals the only value available to a user may be the speed of gaining the connection.

We believe this could still be appropriate provided that the non-firm connection is a temporary measure to facilitate quicker connection to the network while the DNO increases network capacity (e.g. via reinforcement or flexibility procurement), with the customer able to then have standard access from that point. There should be a standard maximum time limit that should apply across all DNOs for such temporary non-firm access arrangements and we believe existing customers with non-firm access or who are in an Active Network Management Zone should also be able to make use of these new arrangements i.e. changing their current access from an indefinite non-firm arrangement to a time-limited non-firm arrangement.

For time profiled access rights, we agree that these can be valued through both lower connection costs and through use of system charges.

Use it or lose it/Use it or sell it arrangements

As set out above, we support a move to a shallow connection charging regime. However, in order to prevent the inefficient hoarding of capacity we believe consideration should also be given to the introduction of stronger 'use it or lose it' or 'use it or sell it' access clauses.

Transmission Network Charges: Small Distributed Generation (SDG) Reform

Charging of SDG should be linked to access rights

With respect to SDG that are in zones where generation is increasing long-term transmission costs, we consider that, in principle, the alignment of treatment for generators is a sound objective. However, there are advantages and disadvantages of being connected at distribution level, and in seeking to level the playing field it is important that the review recognises the full range of differences between transmission and distribution connected generators. This includes recognising the more beneficial access arrangements that apply at transmission (i.e. financially firm access, connect and manage), as well as recognising that even after the TCR embedded benefit reform, large generation may still be in receipt of negative residual payments that SDG will not. It is important that the review assesses whether proposed solutions improve the situation 'in the round'.

We believe that charging SDG for use of the transmission network is only appropriate if SDG has the same level of access rights to the transmission network as large generation. It would not be appropriate for SDG to pay the same level of charges as Large Generators if the ESO or DNOs are able to constrain them, and their access to the transmission network, for free whilst being required to compensate Large Generators for the same action.

Therefore, we support the proposal to delay a firm decision on the approach to charging TNUoS to SDG until clarity around the direction of travel for transmission arrangements is provided. Any wider review of transmission arrangements should seek to ensure alignment of access arrangements across transmission and distribution. If Ofgem is not minded to bring access arrangements for DG into line with those at transmission, then we believe there is a strong case to consider bringing transmission access arrangements into line with those to be applied at distribution.

SDG charge design

Subject to SDG having the same access rights to the transmission network as large generation, it would be more cost reflective and would level the playing field with large generation to begin charging SDG for use of the transmission network where it is imposing costs. We believe credits should only be provided for action taken and so it is appropriate to retain the inverse of demand charges where SDG is providing a benefit. Where SDG is imposing a cost, an agreed capacity approach is more appropriate, but it may be impractical as it will require charging arrangements to take account of technology type and load factor to align with large generation. If these practical challenges fail the proportionality principle, then maintaining the inverse of demand charges would be preferable.

Appendix Two: Consultation Questions

3. Connection boundary

Question 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.

We agree with the proposal to move to a shallow connection boundary for demand. For the vast majority of the required deployment of LCTs, location has already been decided and so the current shallowish boundary provides no useful locational signal and can act to prevent investment, slowing the transition to net zero. The current boundary also encourages DNOs to take a reactive approach to reinforcement as the means of facilitating new connections, rather than investing strategically in anticipation of wider network needs or considering alternative options such as flexibility procurement to meet the capacity requirements of their customers. We believe that a shallow connection boundary for demand will facilitate the roll out of LCTs in an efficient and timely way whilst also reducing the overall requirement for traditional network investment.

Ensuring DG can connect without excessive delay or cost is also necessary to provide the level of flexibility that will be required in the future, and we believe a shallow connection boundary should also apply for generation. The difference between transmission and distribution connection charging arrangements for generation could create: undue barriers to entry at distribution; distortions between transmission- and distribution-connecting projects; and/or inefficient network development. A shallow boundary will reduce barriers to entry for some projects at distribution level and reduce this distortion between transmission and distribution arrangements.

Whilst we agree that the current DUoS arrangements, which provide credits to all small DG, may not provide a sufficient locational signal to justify a move to a shallow boundary, we believe that the review should be seeking to introduce more effective locational DUoS signals for DG which would then facilitate a common shallow boundary with demand.

Question 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?

The evidence previously collected by Ofgem shows the average customer share of connection costs to be £13k where quotes have been accepted and £91k where quotes have not been accepted. However, the breakdown of these figures suggests that it is the 'shallow' element of connection costs (£12k for accepted quotes vs £78k for not accepted quotes) which are the main driver behind projects not going ahead, rather than the contribution to reinforcement costs (i.e. the shallow-ish element, £1k vs £13k). Therefore, whilst a shallow regime may result in material cost reductions for some individual projects, the evidence suggests that a shallow boundary will retain a reasonably strong locational signal.

Question 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?

We believe the current arrangements lead to DNOs reacting only to accepted connection offers which can lead to an inefficient and piecemeal approach to network reinforcement. The arrangements also hinder the consideration of flexible solutions since the DNO will be liable to fund the full cost of any flexible solution (or require the connecting customer to pay for this), whereas the DNO will only fund a portion of the network reinforcement solution. By requiring DNOs to fund all reinforcement costs, this will encourage them to invest strategically ahead of need based on the expected capacity requirements of their customers and it will also allow DNOs to consider other approaches to network reinforcement i.e. flexibility procurement, as an alternative to network build. This could in turn reduce the overall requirement for traditional network investment while providing the capacity needed to facilitate new and modified connections in an efficient and timely way.

Question 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?

We have no comment in response to this question.

Question 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?

We have no comment in response to this question.

Question 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?

As Ofgem points out, customers seeking to connect to the transmission network currently face a shallow connection charge. Conversely, Transmission Attributable work that has been triggered by a distribution connection is currently charged to the individual connection customer as part of the DNO's connection charge. This represents a distortion between transmission and distribution arrangements.

From the point of view of a connecting customer, the boundary between the distribution network and the transmission network is an artificial one. Therefore, reinforcement costs triggered on the transmission network should not be treated differently to any distribution level reinforcement triggered by a distribution connection. Under a shallow connection charging regime, transmission reinforcement costs should be socialised.

Question 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?

A move to a shallow boundary will increase the risk of inefficient investment, although we note that at distribution level, it is more likely that any investment will be able to be reutilised.

Liabilities and securities arrangements are about protecting wider consumers from the risk of having to fund stranded investment due to projects not going ahead. We do not believe these are necessary for most distribution connections due to their low-cost nature. However, they may be

appropriate for high cost projects under a shallow connection regime. If such segmentation is applied, it is better to segment according to the level of cost (i.e. linked to the stranding risk) rather than by voltage level, which may introduce perverse boundary issues. Also 'high cost' should not simply be the total cost of reinforcement, as in theory this could capture a domestic property installing an EV charger (if it triggers reinforcement) but rather should follow an apportionment rule so that the practical application is limited to larger projects which are driving reinforcement. Also, since an objective of the review is to reduce barriers to investment in LCTs and variable renewable energy sources (VRES), it would be important to ensure that any liabilities and security arrangements are applied consistently across DNOs and do not introduce potential liabilities which exceed the current shallowish connection boundary.

We also believe that the introduction of stronger 'use it or lose it' or 'use it or sell it' access clauses will help to prevent the inefficient hoarding of capacity.

Question 3h: What are your views on whether the interactions between our connection reforms and the ECCRs must be resolved before we are able to implement our proposed reforms? How do you factor in the effects of the ECCRs (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 ECCRs work together most efficiently?

We have no comment in response to this question.

4. Access rights

Question 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?

Access rights to the distribution networks require clarifying and improvement to ensure DG and demand side response (DSR) can compete effectively with transmission connected generation for revenue streams across the market. Therefore, we support the proposals to introduce better defined non-firm access choices at distribution and to define new non-firm arrangements in relation to the percentage of time that users are willing to be curtailed. We believe these are a step in the right direction.

Question 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?

We believe this is a positive development and we agree that these can be valued through both lower connection costs and through appropriately designed use of system charges.

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

We agree with the concerns highlighted in the consultation regarding the uncertainty of take-up of this option e.g. whether sharing access with other users will be considered too risky for most users to accept, and the practicality of this option e.g. how capacity/exceeded capacity charges are allocated if the users have different suppliers. Also, since DNOs already assume some diversity of demand when planning their networks, we are concerned that arrangements for sharing of access may lead to rewards for some for a level of diversity that naturally occurs across all users.

Question 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)?

With respect to how access choices are valued, we agree that users should receive value when they obtain an access right that avoids additional network costs. We note that under a shallow(er) connection boundary regime there is no (or less) difference in connection cost between a firm and non-firm connection and so under Ofgem's proposals the only value available to a user may be the speed of gaining a connection.

This could still be appropriate provided that the non-firm connection is a temporary measure to facilitate quicker connection to the network while the DNO increases network capacity (e.g. via reinforcement or flexibility procurement), with the customer able to then have standard access from that point. Existing customers with non-firm access or who are in an Active Network Management Zone should also be able to make use of these new arrangements i.e. changing their current access from an indefinite non-firm arrangement to a time-limited non-firm arrangement. There should also be a standard maximum time limit that should apply across all DNOs for such temporary non-firm access arrangements for existing or new customers.

For time profiled access rights, we agree that these can be valued through both lower connection costs and through use of system charges.

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

Ofgem's proposals for changes to distribution access and connection charging arrangements represent a step in the right direction to addressing this distortion. However, particularly for distributed generation (DG), the proposals fall short of removing it. Generators connecting at transmission level benefit from the Connect and Manage regime, a shallow connection boundary and financially firm access rights. If Ofgem is not minded to bring access arrangements for DG into line with those at transmission, then we believe there is a strong case to consider bringing transmission access arrangements into line with those to be applied at distribution. Any wider review of transmission arrangements should therefore include access and connection charging arrangements, including the Connect and Manage regime, which we believe is driving significant increases in consumers bills through higher balancing costs.

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

A lack of standardisation can act as a barrier to investment as connecting customers can be faced with a postcode lottery in terms of access arrangements. Where possible access arrangements should be standardised across the DNOs. In particular, where users accept a non-firm connection to facilitate a quicker connection, there should be an agreed maximum time limit across the DNOs for how long such a non-firm connection will apply before standard connection terms apply.

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

We support implementation of 1 April 2023 for changes to the connection boundary and access arrangements. However, our view on implementation timescales for the various areas within scope of the Access SCR may change when the proposals for the forward looking charges are published and we are able to understand the overall package of reform intended from the review.

5. TNUoS charges for SDG

Question 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?

Whilst SDG may contribute to flows in the same way as large generation, we do not agree with the premise that this means they should be charged on a consistent basis. We believe that charging SDG for use of the Transmission network is only appropriate if SDG has the same level of access rights to the transmission network as large generation. It would not be appropriate for SDG to pay the same level of charges as Large Generators if the ESO or DNOs are able to constrain them, and their access to the transmission network, for free whilst being required to compensate Large Generators for the same action.

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

Subject to SDG having the same access rights to the transmission network as large G, it would be more cost reflective and would level the playing field with large generation to begin charging SDG for use of the transmission network where it is imposing costs. We believe credits should only be provided for action taken and so it is appropriate to retain the inverse of demand charges where SDG is providing a benefit. Where SDG is imposing a cost, an agreed capacity approach is more appropriate, but it may be impractical as it will require charging arrangements to take account of technology type and load factor to align with large generation. If these practical challenges fail the proportionality principle, then maintaining the inverse of demand charges would be preferable.

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

We have no comment in response to this question.

Question 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 we have missed?

We have no comment in response to this question.

Question 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?

We support the proposal to delay a firm decision on the approach to charging TNUoS to SDG until clarity around the direction of travel for transmission arrangements is provided. Any wider review of transmission arrangements should seek to ensure alignment of access arrangements across transmission and distribution. If Ofgem is not minded to bring access arrangements for DG into line with those at transmission, then we believe there is a strong case to consider bringing transmission access arrangements into line with those to be applied at distribution.

Question 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?

Subject to SDG having the same access rights to the transmission network as large G, it would be more cost reflective and would level the playing field with large generation to begin charging SDG for use of the transmission network where it is imposing costs. We believe credits should only be provided for action taken and so it is appropriate to retain the inverse of demand charges

where SDG is providing a benefit. Where SDG is imposing a cost, an agreed capacity approach is more appropriate, but it may be impractical as it will require charging arrangements to take account of technology type and load factor to align with large generation. If these practical challenges fail the proportionality principle, then maintaining the inverse of demand charges would be preferable.

Question 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?

Ofgem's proposals for changes to distribution access and connection charging arrangements represent a step in the right direction to addressing the distortion between transmission and distribution. However, particularly for distributed generation (DG), the proposals fall short of removing it. Generators connecting at transmission level benefit from the Connect and Manage regime, a shallow connection boundary and financially firm access rights. If Ofgem is not minded to bring access arrangements for DG into line with those at transmission, then we believe there is a strong case to consider bringing transmission access arrangements into line with those to be applied at distribution. Any wider review of transmission arrangements should therefore include access and connection charging arrangements, including the Connect and Manage regime, which we believe is driving significant increases in consumers bills through higher balancing costs.

7. General question

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

We have no comment in response to this question.