

Ofgem open letter on regulatory arrangements for independent network operators

National Grid plc response

This response to Ofgem’s “Open letter on strategic transmission charging reform” dated 11 September 2023 is from National Grid plc (NG), on behalf only of our electricity distribution business, National Grid Electricity Distribution Holdings Limited (NGED), our transmission business, National Grid Electricity Transmission plc (NGET) and our National Grid Ventures business. It does not cover the separate National Grid Electricity System Operator (ESO) business.

National Grid supports Ofgem opening a review into the regulatory arrangements for independent distribution network operators (IDNOs). As the largest transmission and distribution company in GB we are keen to engage in the review and believe we are well placed to share our experiences of working at both sides of the “T/D boundary” to help inform the regulatory policy making process. Given the collective focus of industry, Ofgem and Government on improving the connections arrangements and accelerating connection dates for customers who are ready to connect, we think it is right to consider the potential advantages, disadvantages and mitigations of extending competition to allow independent providers to offer last mile connections.

The review will need to take into account the reforms proposed in Ofgem and Government’s Connection Action Plan to ensure that any policy changes are designed for the future world and not for today’s, which we know will change in the near future. Ofgem may wish to consider whether providing some oversight of the review to the proposed Connections Delivery Board which Ofgem will be chairing would add value in order to get inputs from industry and help identify and manage any interdependencies.

We consider the review should include all aspects of connections to ensure that customers are able to have a wider choice of network operator and therefore allowing more competition in connections, whilst also ensuring that all network operators are able to run co-ordinated, efficient and economical networks. We also believe any review should consider private network arrangements. However, given the importance of “pace over perfection” and the investment challenge in the coming years, we recommend Ofgem considers whether a wider review of the IDNO arrangements should need to be conducted in parallel, or whether any discrete issues could be accelerated where there are benefits to consumers in doing so.

Reflecting this overall position, we believe the pros and cons outlined in our response to question 1 will need to be taken into account and addressed to allow for the effective implementation of a change for IDNO regulatory arrangements.

Question 1: What do you consider to be the pros/cons of IDNOs connecting EHV customers embedded within distribution networks?

Pros:

- Licenced IDNOs give developers additional choice for the design, construction and ongoing operation of new electrical grid connections.
- IDNOs operate in a competitive landscape and are therefore incentivised to deliver an efficient service.
- Allows for efficient, economic and co-ordinated networks to be developed in a timely manner.

Cons:

- As we look ahead, a future challenge is to ensure that electricity networks are designed, constructed and developed in the most efficient way from a ‘whole system’ perspective. Visibility of planned works and holistic design across a number of interacting parties are essential to ensure this happens.
- There is a method for calculating the setting of end user Tariffs with an embedded EHV IDNO. However, this method is not visible to the IDNO’s as it uses the EDCM charging model which is not publicly available.

Question 2: What do you consider to be the pros/cons of IDNOs connecting directly to the transmission network?

In principle, we can see extending competition for last mile transmission connections is in many ways a natural extension of the IDNO and self-build connection policies and that offers potential benefits for both connecting customers and consumers more broadly.

Creating a new last mile connection option to supplement self-build and TO-provided could have particular benefits given the changing context in the customer base seeking to connect to the transmission network. Driven by the need to decarbonise the electricity system, the scale and nature of the customer base seeking to connect to the transmission system has fundamentally changed in recent years, with a significant expansion in the number and type of organisations seeking to connect and an increase in smaller projects, including storage. For these new types of customers, the self-build option *may* be less attractive to some of the new – smaller - connecting customers due to the associated complexity and capital expenditure of building higher voltage assets.

Enabling competition in last mile connections has the potential to ensure there is a viable choice for all customers as well as provide broader benefits to GB consumers by indirectly supporting TOs to deliver their overall investment programmes at pace to decarbonise the electricity system. We are not convinced the case has been made that this would expedite connections, because of the need for the additional reinforcement work required across the transmission networks to connect additional customers. However, it could realise the following potential benefits:

- **Provide choice to customers of all sizes and sophistication for last mile connections, improving their overall experience and driving efficiency.**
- **Create the potential to bring in new sources of capital into the sector to fund last mile connections, reducing the requirements for TOs.** This is important given the significant expansion of overall investment required to decarbonise the electricity system, e.g. National Grid needs to build five times as much transmission infrastructure by 2030 as we have in the last thirty years.
- **Create the potential to increase overall capacity to connect customers to the transmission system by increasing the overall size of the GB workforce undertaking this activity by accessing IDNO resources.** This is on the basis that the existing workforce in other providers can be deployed onto last mile transmission connections, bringing additional capacity rather than moving capacity currently in the transmission networks. Introducing competition might enable TOs to focus their workforce capacity on the more strategic network investment projects which are required to develop the overall transmission system so we can connect more low carbon generation and demand more quickly and reduce network constraints – all of which are in the broader consumer interest. As we set out in our policy paper “*Delivering for 2035*”, one of the key challenges GB needs to overcome to deliver the net zero transition is expanding our skills pipeline to deliver the required investments to decarbonise the electricity system¹.

In “*Delivering for 2035*”, we set out our ambition to move to a more coordinated and innovative approach to connections through the creation of “capacity hubs”. Capacity Hubs would be a more strategic approach for us to providing connections capacity based on needs identified in spatial plans and delivered ahead of individual customer needs. As part of this we envisage more standardised “plug and play” type connections. Greater standardisation could be an enabler which supports the introduction of competition in last mile connections by standardising the offer that independent providers need to provide to their customers, reducing barriers to entry for such providers and increasing choice for customers.

However, there are a number of complex implementation issues which need further consideration to mitigate the risk and disadvantages, including those which you have identified in the open letter. National Grid is keen to engage with you as these are considered further:

- **Ensuring that minimum standards for last mile connections for quality, safety and cyber security are maintained.** There is additional complexity associated with providing transmission connections with the need to ensure IDNOs or other last mile connection providers had access to suitably qualified people and capabilities, to avoid creating additional burdens on TOs. Our experience with customer self-builds is that the burdens on transmission operators to provide ongoing support suggests this would be a non-trivial issue if the take up of competitive provided connections increased. Any revised arrangements will also need to manage physical and cyber security, to ensure the reliability of critical national infrastructure.
- **Ensuring that the strategic development of the network is not compromised as a result of last mile connection work being undertaken by multiple parties.** This is particularly important given the increasing focus on delivering anticipatory investment and the introduction of a more strategically planned energy system

¹ <https://www.nationalgrid.com/document/149496/download>

including as a result of the Centralised Strategic Network Plan (CSNP) being prepared by the Future System Operator (FSO) and the creation of the Regional Energy Strategic Planners. For example, TOs will increasingly be designing new and rebuilt substations with the ability to be expanded and including “options” like skeleton bays and the strategic evolution of the network will be guided by the FSO and CSNP. Independent last mile connection providers would need to be bound by the same requirements as TOs to ensure all connections works were in line with the strategic plan (e.g. not closing off the development of the network through meeting a single customer's requirement through a low capacity piece of infrastructure precluding the connection of others to the same substation).

- **Mitigating the risk of competitive provider failing to complete the project or choosing to cancel a contract.** As we have seen with self-build customers, there are instances where after starting work a decision is taken to revert to the TO to provide the last mile connection. A mechanism would be needed to manage a situation where a competitive provider were not able to complete their contracted work. We expect this would revert to the TO to provide the connection, but this could impact the expected connection date for the customer - or several customers depending on the planned scope (as TO capacity would have been directed elsewhere) and liabilities/warranties would need to be considered for any equipment installed by a different provider which was then used by the TO. Standardisation has the potential to reduce these disadvantages.
- **Charging arrangements need to be developed for activities which are currently price controlled for TOs and fair recovery of the shared costs between TOs and independent last mile connection providers.**
- **A number of implications for DNOs as a result which need to be considered:**
 - There is currently no method to ensure DNO's could take a supply from an embedded distribution system ('Host DNO') which subsequently hosts an EHV connection This could result in “Islanded” networks and building of assets which may not be required long term, due to the availability of existing network operator assets which would be able to provide the supply.
 - Interactivity between Host DNO and LDNO networks at these higher voltages will need to be analysed to ensure network integrity is maintained.
 - This could result in DNO's and LDNO running networks which aren't efficient, co-ordinated and economical.

For further information and inclusion on communications relating to the review, please contact:

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