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27 March 2024

Dear Joe

Independent Networks Association response on the transition section of the consultation

Electricity demand in Britain is expected to increase at least two-fold by 2050 as different sectors, such as heat, transport and industry electrify. Supporting this growth will require transformation of the energy system. The recent Electricity Network Commissioner's report showed that investment was needed across the electricity networks and that a queue had formed of more than 230GW of generation projects at the transmission level, compared to c.80GW of generation currently connected¹. The transmission queue is having a knock-on effect on the ability of the regional electricity distribution levels to provide connection agreements and there is also considerable demand for connections for domestic and commercial buildings, transport, commercial operations, generation and storage at this level too. To unlock capacity at the transmission level, the Network Commissioner has proposed a range of measures to allow transmission investment to be built more quickly i.e. from around 12 years to 7 years. This will unlock capacity at the distribution level but given the delivery timescales of new investment, this will not be a quick solution. As capacity opens up at the higher voltages, further reinforcement and investment at the lower voltage tiers will need to take place.

Independent Distribution Network Operators (IDNOs) compete to design, develop, operate, and maintain local electricity distribution networks and currently connect 80% of new homes in England. As such, they have significant experience of providing networks for new housing developments and this is a key focus of their businesses. Members of the Independent Networks Association are already seeing some challenges for the connection of new homes. These include:

- restrictions on the timing of release of the necessary electricity capacity, sometimes over several years
- needing to connect into the electricity system at a higher voltage to access capacity, which takes longer to connect to and means more costly assets to do so
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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1175647/ electricity-networks-commissioner-companion-report.pdf



- restrictions on the connections that contain export capability, such as solar PV or other storage
- limited capacity in some areas due to high energy users that have already connected

IDNOs are working with the regional distribution networks (DNOs), with whom they connect their networks into, to find solutions and to innovate. Inevitably introducing a heat solution that places the onus on electricity, at a time of significant transition for the networks with very strong demand for electricity connections as the wider economy seeks to decarbonises, will mean that a longer transition for the Future Homes Standard is critical i.e. option 2 as described in the consultation.

There are also considerations for developments that are already in flight. Energy infrastructure is usually provided at the start of any construction and in the case of larger developments, it may already be laid. Due to the proposal to apply the 2025 Future Homes and Buildings Standards to individual buildings on a site, this not only changes the fabric of the buildings on the site it also changes the energy needs and the required networks to service individual properties. This could mean that the gas infrastructure built to serve a development is oversized and/or the electricity infrastructure is inadequate to meet the needs of the remaining homes' heating and charging needs.

In the case of gas infrastructure, the INA estimates that approximately 530,000 new dwellings in England (or up to 2,500 projects) that were originally contracted with gas infrastructure are unlikely to have completed construction by 2025. This includes some sizable housing developments that were always intended to complete over several years.



% completion projects by Contract date

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Estimated housing impact in England

% Built

Underlying assumptions:

- Drawn from INA member gas connections data extrapolated up to give a reasonably representative indicator of the likely whole market position.
- Connections forecast to be built between 2022-2025 have been accounted for using current build rates.
- A reasonable estimate of new contract awards up to 2025 (sharply diminishing towards 2025).

The latest Government housing statistics (to Sept 23) shows that there were 166,000 new dwellings completed in England over that previous year. Therefore, the new dwellings where gas has already been laid is sizable, representing over three years of current housing delivery. It is unclear that the sector could complete this level of housing in the proposed maximum transition period.

Without an adequate transition, in-flight housing developments will need to reassess whether the gas network laid is oversized and whether the existing electricity network is adequate. The regulation of gas networks is based on safety and there are clear rules on decommissioning gas networks that will need to be considered, potentially causing site disruption and cost as they are usually laid under the road networks prior to the building out of a development. The cost and impact of decommissioning part of the site safely will be site specific as to the design of the network layout and the locations of homes not yet built so it is difficult to estimate this.

It would also be necessary for the existing electricity connection to be reassessed to establish whether the existing connection is adequate to service the remaining homes, built to a different standard. In an unconstrained network position, new electricity infrastructure to housing developments has an average two-year lead time prior to energisation. The current electricity network constraints described above could well extend that lead time, depending on location. Without an adequate transition this would create an incentive to focus the industry's attention and their supply chains to the commencement of homes on the existing standard.

In terms of solutions, the simplest would be to adopt 12-months between the laying date of the Future Homes and Buildings Standard regulations and publication of full technical specification and the regulation coming into force, followed by a 24-month transitional period if the gas network has already been laid and / or the development requires an upgraded electricity connection.





Please don't hesitate to contact me if you wish to clarify any points.

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Nicola Pitts Executive Director Independent Networks Association