

## Ofgem consultation: connections end-to-end review of the regulatory framework

### Centre for Net Zero response

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Centre for Net Zero is part of the world-leading group of organisations that comprise Octopus Energy Group. We are an autonomous, not-for-profit organisation that delivers research to transform future energy systems, in particular by leveraging the Octopus Energy customer dataset. We have focused our response to align with the core focus of our work on domestic consumers in the energy transition. It is therefore limited to the ‘minor connections’ theme.

We strongly support the inclusion of the LV network in this review. We expect small-scale energy assets - EVs, heat pumps, solar PV, batteries, thermal stores - to play an increasing role in a more decentralised energy system in future, based on weather-dependent generation from more varied sources. It is important that we manage the impact of electrification on the LV network, but also ensure that the process for grid connections actively supports the adoption of low-carbon technologies. As the consultation acknowledges, delays and confusion around connections for households can be a major barrier to the rollout of low-carbon technologies (LCTs) - and ultimately net zero.

We agree with the points raised around a lack of transparency and consistency between DNO processes, and poor asset visibility. DNOs need to become more proactive in planning for electrification and engaging households on their network. To that end, Scottish and Southern Electricity Networks is developing the ‘Connection Readiness Indicator’ (CRI) - a new metric of a home’s readiness to connect LCTs, as set out in a recent report, ‘Net Zero Building Metrics’, published in partnership with Centre for Net Zero and Energy Systems Catapult: [www.centrefornetzero.org/papers/net-zero-building-metrics-smart-homes-for-the-future-energy-system](http://www.centrefornetzero.org/papers/net-zero-building-metrics-smart-homes-for-the-future-energy-system).

The CRI will indicate the extent to which the network is able to facilitate the connection of different LCTs for the property and, crucially, allow customers to request any necessary upgrades. It is designed to improve the customer journey for LCT adoption by getting ahead of network connection delays, while enabling networks to more proactively prepare homes for electrification, streamline their own processes for grid connections, and access more granular data to plan expansion of local networks. The CRI will confirm, or estimate where there are gaps in DNO data, for current total capacity of the property, peak demand of the property, available capacity for LCT connection, and how suitable a property could be for a new device. Further detail is provided in the published report and technical annex.

More broadly, the CRI should form part of a suite of building metrics comprising a digital profile for every home. Providing all relevant information about a building's performance and progress towards being 'net zero ready', this would act as one source of truth for a range of users: consumers (occupants and prospective buyers), finance providers, industry (energy suppliers, installers) and DNOs. The best available data for a property can be used to create a 'provisional' profile, which is updated dynamically as data improves. A digital building profile will become more plausible in future as the Government introduces a central asset register and automatic asset registration.

Ofgem can play a role in supporting the adoption of the CRI across all DNOs, and consider standardisation or best practice guidance for such metrics to ensure consistency for the end consumer. It should also work with the government to ensure it is as integrated as possible with wider reforms to building data, including asset registration and reformed energy performance certificates.