

Ofgem ED3 Sector Specific Methodology Consultation

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About Regen

Regen provides independent, evidence-led insight and advice in support of our mission to transform the UK's energy system for a net zero future. We focus on analysing the systemic challenges of decarbonising power, heat and transport. We know that a transformation of this scale will require engaging the whole of society in a just transition.

Regen is a membership organisation with over 200 members who share our mission, including clean energy developers, businesses, local authorities, community energy groups and research organisations across the energy sector. We manage the Electricity Storage Network (ESN) – the industry group and voice of the grid-scale electricity storage industry in GB.

Regen works with National Grid Electricity Distribution (NGED) and Scottish and Southern Electricity Networks (SSEN) to develop Distribution Future Energy Scenarios (DFES) analysis.

Summary and recommendations

Regen welcomes the opportunity to respond to Ofgem's consultation on its ED3 sector specific methodology. Regen has long advocated for investment ahead of need in the distribution network, and we strongly support a shift in approach towards 'proactive investment'.

A reformed approach to regulating network companies is needed to ensure that distribution networks are an effective enabler to the energy transition in Great Britain. Regen's work on this includes papers on:

- [Electrification: The Local Grid Challenge](#)
- [Building an electricity network for net zero](#)
- [Networks Unlocked](#)

Regen has worked extensively with distribution network operators to pioneer and deliver DFES analysis since 2015. This experience has provided us with valuable insights into key considerations for ED3 across the Regional Energy Strategic Plan (RESP) and DFES processes. Drawing on our system-wide analysis and expertise in grid connections, innovation, energy efficiency and flexibility, Regen has structured this response around six priority areas.

Key recommendations:

1. **Recommendation:** DNOs should have the discretion to draw on other granular and up-to-date evidence alongside tRESP when producing their long-term network development plans for ED3.
2. **Recommendation:** Ofgem should direct NESO and DNOs to plan for colder than average winters and work with them to define the required level of cold-weather resilience.
3. **Recommendation:** DNOs should be incentivised to offer and deliver timely grid connections and to innovate to be able to offer earlier and/or lower cost connections to customers.
4. **Recommendation:** Ofgem should require DNOs to publish more detailed and consistent data on LCT connections. Current gaps make it difficult to assess performance or track progress.
5. **Recommendation:** Ofgem should work with the government to establish a coherent delivery framework for heat electrification and energy efficiency, providing DNOs with a formal role, including helping to identify network impacts, opportunities and areas with existing headroom.
6. **Recommendation:** Ofgem should enable third-party innovators to lead SIF projects so that innovations with wider social, environmental or consumer benefits can progress even where they do not deliver a direct network benefit.
7. **Recommendation:** Ofgem should clarify that flexibility may be used in ED3 where DNOs can show it provides a demonstrably lower long-term cost than reinforcement and, as part of a long-term delivery plan, will not lead to future delivery bottlenecks.
8. **Recommendation:** Ofgem and Elexon should urgently clarify whether changes to the distribution network flexibility framework are being considered – such as moving from explicit contracted procurement to implicit demand charging – so that DNOs can reflect this in their ED3 plans.

RESP and DFES

We strongly support Ofgem's proposed shift ED3 to require DNOs to plan and invest longer-term and more strategically than in previous price control periods. Regen has been advocating for this for many years. This change in regulatory approach is also a reflection of a clean power and low-carbon energy sector that is poised to invest in, mobilise and build out many projects, **if** the network (including increasingly the distribution network) is ready to connect them.

We support the implementation of a coordinated approach to regional energy and network planning guidelines through the RESPs, Strategic Spatial Energy Plan (SSEP) and Centralised Strategic Network Plan (CSNP).

At this first stage of the RESP process it will be important for DNOs to review how the tRESP outputs in January align with granular DFES 2025 modelling. Our initial observations are that tRESP may model a more modest overall load growth, potentially using more optimistic assumptions regarding the use of system flexibility and energy efficiency.

By their nature, DFES and tRESP are different modelling processes. DFES analyses synthesise multiple, more granular sources of data for baselines and spatially produced outputs than tRESP. DFES also covers a deeper range of sub-technologies and technology archetypes.

In addition, the CPAs outlined in tRESP were focused on heat pumps and electric vehicle pathways. The wider technology scope of DFES analysis and the lack of specific CPAs for other non-CP30 technology building blocks (e.g. rooftop solar, battery storage, hydrogen electrolysis, data centres, new housing and non-domestic developments etc.) will result in potential differences in approaches.

Given these factors we think DNOs should have the discretion to draw on other evidence alongside tRESP in their network planning for ED3, where they think it is important to ensure they do not miss local trends or delay timely investment.

Recommendation: DNOs should have the discretion to draw on other granular and up-to-date evidence alongside tRESP when producing their long-term network development plans for ED3.

Winter peak resilience

[Analysis by the National Infrastructure Commission](#), jointly delivered by Regen and EA Technology, found that distribution network expenditure is highly sensitive to the planning assumptions for electric heating on winter peak demand days. Paragraphs 9.5 to 9.8 state that Ofgem considers this to be NESO's responsibility as part of the RESP/tRESP assumptions. However, NESO is currently using assumptions based on average peak winter cold weather, rather than the less frequent but significantly colder conditions that drive the highest demand.

Planning for infrequent cold weather does not necessarily mean designing the network for much higher peak loads. It does, however, require considering the actions needed to ensure

sufficient network capacity to meet demand during those colder periods – for example, assessing likely industrial demand, the impact of electrified transport and the realistic level of demand-side turn-down that could be delivered.

Recommendation: Ofgem should direct NESO and DNOs to plan for colder than average winters and work with them to define the required level of cold-weather resilience.

Connections

Larger-scale generation, storage and demand connections are currently delayed by transmission network constraints. It is therefore critical that DNOs offer a wide range of creative connection products and solutions to enable early connections while enabling works are carried out on the transmission network.

DNOs have made some strong progress in ED2 with tools like Active Network Management and through publishing far more granular data to enable customers to assess potential constraints.

- **Recommendation:** DNOs should be incentivised to offer and deliver timely grid connections and to innovate to be able to offer earlier and/or lower cost connections to customers.

Regen welcomes Ofgem’s commitment to improve the connections process for Low Carbon Technologies (LCTs). It is not surprising that DNOs have not performed to customers’ and installers’ expectations, given that there are currently no incentives for LCT connections that utilise existing network connections (such as a heat pump connected to an existing domestic supply).

While Regen broadly agrees with Ofgem’s thinking, we have four specific recommendations on minor connections:

- **Recommendation:** Ofgem should segment minor connections by low-carbon technology type, as customer impact, network effects and service needs differ significantly between heat pumps, EV chargers and rooftop solar. A short delay to a heat pump installation can lead to an aborted install and years of avoidable emissions. We therefore urge Ofgem to include an additional option (paragraph 4.18) that reflects the type of device being installed.
- **Recommendation:** Ofgem should ensure incentives encourage DNOs to carry out enabling works proactively, not only in response to individual applications. Most homes with both a heat pump and an EV charger will remain within single-phase capacity, so DNOs should be incentivised to address looped services and low-capacity cut-outs ahead of requests.
- **Recommendation:** Ofgem should require DNOs to publish more detailed and consistent data on LCT connections. Current gaps make it difficult to assess

performance or track progress. We urge Ofgem to use our framework as a guide for what data to publish.

- **Recommendation:** Ofgem should not wait until ED3 to reform the minor connections process. By 2028, DNOs will be processing many tens of thousands of applications each week, and the system must be made easier and faster well before then.

Energy efficiency

The electrification of heat is an enormous national infrastructure project, requiring changes in almost every home in Great Britain, as well as to the connecting network. We believe that a coordinated ‘place based’ approach to delivery is the only way to achieve this. Failure to involve networks effectively will result in inefficiencies in the delivery of both the measures themselves and the network, leading to higher costs for consumers.

Currently, a key barrier to strategic delivery is the lack of clarity regarding responsibility and a clear mandate for bodies to act. DNOs should be empowered to support the delivery of energy efficiency measures with a clearly defined role, complemented by similar clarity on the roles of other bodies, including local authorities and national government. Providing a clear mandate and obligation to act for all parties is crucial.

We do not believe that DNOs are likely to be best placed to deliver energy efficiency measures. However, they can play a key role in coordinating delivery, defining network impact and opportunities.

The current proposal states that DNOs could play a substantial role in delivery “where there would be a network benefit”. However, DNOs should have a wider remit in supporting energy efficiency upgrades across the network, in particular facilitating electrification where there is already sufficient headroom.

Recommendation: Ofgem should work with the government to establish a coherent delivery framework for heat electrification and energy efficiency, providing DNOs with a formal role, including helping to identify network impacts, opportunities and areas with existing headroom.

Innovation

We agree with maintaining the Network Innovation Allowance (NIA) scope to “facilitate energy system transition and/or benefit to consumers in vulnerable situations”, as we believe these are the two most important areas for network innovation that are harder to fund under Business As Usual (BAU).

We agree that additional measures should be implemented to ensure a higher standard of Innovation Strategies, and that these should be linked to the Business Plan Incentive (BPI). Innovation is still too often siloed, and innovation teams are structured to deliver NIA and Strategic Innovation Fund (SIF) projects rather than broader transformation programmes.

Therefore, the Innovation Strategies should demonstrate a company-wide approach to innovation, including (but not limited to):

- Structure and governance
- Roles and responsibilities
- Approach to changing the innovation culture
- Processes for identifying the need for innovation, including how they engage internally and externally
- Different funding streams they intend to use, including BAU funds
- Roll-out and scale-up plans.

The introduction of a deployment fund that will enable investment in proven innovations is welcome. Network companies have told us that it is challenging to invest in changes that have a longer-term payback period, even if it is the right thing to do. A deployment fund could help overcome this problem.

We believe that change is required to enable more innovation that doesn't directly benefit the networks but could have significant wider social and environmental benefits. Currently project ideas with wider value are not taken forward by networks because they are either not aligned with their current direction of travel (e.g. a community approach to consumer-led flexibility) or do not offer significant direct benefits to the network (e.g. a new approach to public engagement). The best way to address is to allow third-party innovators to lead SIF projects. This would broaden the scope of innovation and ensure that promising ideas with strong social or environmental value are not lost because they fall outside a network company's immediate priorities.

Recommendation: Ofgem should enable third-party innovators to lead SIF projects so that innovations with wider social, environmental or consumer benefits can progress even where they do not deliver a direct network benefit.

Flexibility

While Regen supports Ofgem's view that excessive reliance on contracted flexibility could have suboptimal outcomes for price controls beyond ED3, we think Ofgem may be focusing too narrowly on the role of flexibility in ED3. Ofgem helpfully lists a number of flexibility use cases, but Paragraph 5.8: "DNOs should not be using flexibility to defer the delivery of infrastructure that has been planned for ED3" misses the nuances of constraint forecasting. If a constraint is forecast to be infrequent (i.e. it will occur on just a few hours per year, or in some years not at all), then procurement of flexibility is likely to be in consumers' interests as long as it does not lead to future delivery bottlenecks.

Recommendation: Ofgem should clarify that flexibility may be used in ED3 where DNOs can show it provides a demonstrably lower long-term cost than reinforcement and, as part of a long-term delivery plan, will not lead to future delivery bottlenecks.

In our ED3 framework response earlier this year, we highlighted the ongoing debate about the future of distribution network flexibility and whether it should continue to rely on targeted, contracted procurement (an opt-in, explicit signal) or move towards a network capacity congestion pricing model (an implicit signal received by all consumers within a congestion zone). A shift between these approaches would have significant implications for the price control and for how DNOs plan and operate their networks. Ofgem and Elexon, in its emerging role as market facilitator, should therefore be clear about whether changes to the distribution flexibility framework are being considered. We urge Ofgem to provide this clarity quickly so that DNOs can reflect any direction of travel in their ED3 plans.

Recommendation: Ofgem and Elexon should clarify whether changes to the distribution network flexibility framework are being considered – such as moving from explicit contracted procurement to implicit demand charging – so that DNOs can reflect this in their ED3 plans.